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INNOVATIVE METHODS OF DIAGNOSTIC AND TREATMENTS IN TRADITIONAL RUSSIAN AND CHINESE MEDICINE

Materials of the XVIII Russian-Chinese Biomedical Forum
(Blagoveshchensk, October, 26-27, 2023)

Amur State Medical Academy, Russia
Heilongjiang University of Chinese Medicine, China

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MICROCIRCULATION STATUS IN PATIENTS WITH SEVERE COMMUNITY-ACQUIRED PNEUMONIA

Abuldinova O. A.

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Abstract. As a result of the study, the features of the state of the microcirculatory bed were revealed by laser Doppler flowmetry in patients with severe community-acquired pneumonia of bacterial genesis. It was revealed that in patients with severe community-acquired pneumonia of bacterial origin, despite the severity of the condition, compensatory regulation mechanisms are adequately triggered in response to the infectious process in the bronchopulmonary system, as evidenced by the hyperemic form of blood flow disorders in the microcirculatory bed.

Keywords: community-acquired pneumonia, laser doppler flowmetry, microcirculatory bed.

Community–acquired pneumonia is a significant problem worldwide, it causes a high level of morbidity and mortality, despite the availability of effective treatment methods [1]. Over time, this problem worsens, as new virulent strains of microorganisms that cause pneumonia constantly appear, and previously existing strains acquire antibiotic resistance. In addition, the number of patients with a severe course of the disease is gradually increasing, which is explained by insufficient assessment of severity at the early stages of diagnosis and treatment [2]. The use of the laser doppler flowmetry method provides an opportunity not only to evaluate the general parameters of the microcirculatory bed, but also to determine the state of active and passive factors regulating the nutritive bed. This method can serve as a tool for predicting the unfavorable course of community-acquired pneumonia in the early stages of the disease [3].

Objective

To identify the features of the state of microcirculation, its relationship with the severity of the inflammatory process in patients with severe pneumonia.

Materials and methods

40 (24 women and 16 men) patients with severe community-acquired bacterial pneumonia who are on inpatient treatment at the Amur Regional Clinical Hospital JSC were examined. After a visual examination of the bronchial tree, endobronchial microcirculation was evaluated using a laser analyzer of capillary blood flow LAKK-02 («LAZMA», Moscow; registration certificate of the Ministry of Health of Russia No. 29/03020703/5555-03 dated 11.09.2003). At the same time, bronchoscopy with laser doppler flowmetry was performed on the first day from the moment of admission to the hospital and 2 weeks after the start of treatment. The severity of the condition was due to the volume of lung tissue damage, the severity of respiratory failure and the severity of intoxication syndrome. The average age of patients was 39.4±7.9 years. It is also necessary to answer that the total severity score of the condition on the CURB-65 scale in this group of patients in 90% of cases corresponded to 1-2 points, 5% accounted for 0 points and 5% for 3-4 points. The severity of the inflammatory process was assessed according to clinical and biochemical blood analysis.

Results and discussion

On the first day of hospitalization, the following changes in the clinical blood test are noted: a decrease in erythrocytes and hemoglobin relative to normal values, leukocytosis, pronounced acceleration of ESR. When assessing the acute phase parameters of venous blood, a significant increase in C-reactive protein and fibrinogen was revealed. There is also a decrease in the partial voltage of blood oxygen and an increase in the partial voltage of carbon dioxide. When evaluating the indicators in dynamics after 2 weeks, the following was revealed: the level of erythrocytes increases by 1.02 times ($p<0.05$), hemoglobin also increases by 1.02 times ($p<0.01$); at the same time, the level of erythrocyte sedimentation rate decreases by 1.89 times ($p<0.001$), C-reactive protein – by 5.4 times ($p<0.001$), fibrinogen – 1.26 times ($p<0.001$); there is also an increase in the partial voltage of blood oxygen by 1.15 times ($p<0.001$) and a decrease in the partial voltage of carbon dioxide by 1.04 times ($p<0.001$). During laser doppler flowmetry on the first day of admission to the hospital, there is a significant increase in blood flow in the areas of inflammation, which is expressed in an increase in the microhemocirculation index (PM), the index of flaxmotion (IFM), the amplitude of oscillations in the neurogenic and endothelial ranges, which is characteristic of the inflammatory process and indicates an adequate response of oragnism to inflammation. After 2 weeks from the start of treatment, there is a decrease in microcirculation indicators according to laser doppler flowmetry: PM – by 1.79 times ($p<0.001$), oscillation amplitudes in the neurogenic and endothelial ranges by 1.52 ($p<0.001$) and 1.55 ($p<0.001$) times, respectively. A decrease in microhemocirculation indicators indicates a decrease in the activity of the inflammatory process, which is confirmed

by laboratory blood parameters and clinical manifestations of the disease.

Conclusion

Thus, it can be concluded that in patients with severe community-acquired pneumonia of bacterial origin, despite the severity of the condition, compensatory regulation mechanisms are adequately triggered in response to the infectious process in the bronchopulmonary system, as evidenced by the hyperemic form of blood flow disorders in the microcirculatory bed. At the same time, a clear relationship between the severity of inflammation according to laboratory blood changes was revealed.

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INDICATORS OF INNATE IMMUNITY AND THEIR ASSOCIATION WITH OBSTETRIC AND PERINATAL OUTCOMES IN COVID-19

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Abstract. The COVID-19 pandemic, declared to have ended by WHO in May 2023, was accompanied by a variety of clinical manifestations ranging from mild to severe, which is associated with immune dysregulation. Pregnancy may act as a factor that increases the risk of SARS-CoV-2 infection. Among the complications of pregnancy with COVID-19, chronic placental insufficiency and premature labour are noted, increasing the risk of intrapartum and perinatal infection [1, 2].

Keywords: COVID-19, innate immunity, obstetric and perinatal outcomes.

Studies suggest an important role of myeloid cells in the pathogenesis of COVID-19 [3], but the state of innate immunity in this infection in mothers and their newborns remains poorly understood [4].

Objective

To analyse the relationship between innate immunity and perinatal outcomes in pregnant women who underwent COVID-19 in the third trimester of pregnancy.

Materials and methods

A study of 93 women at 35-40 weeks of pregnancy and their newborns was conducted, including 31 cases with a mild course of COVID-19 (without lung tissue damage, acute respiratory infections) and 40 cases with a moderate course of COVID-19 (pneumonia). The control group consisted of 22 women without COVID-19 and their newborns. The studied groups did not differ in age and body mass index. The level of IgM and IgG antibodies to SARS-CoV-2 was determined in blood plasma by enzyme-linked immunosorbent assay. Clinical blood analysis was performed on an automatic hematology analyzer, expression of CD14- and HLA-DR-antigens in monocytes - on a flow cytometer, SARS-CoV-2 RNA in placenta samples - by RT-PCR.

Outcomes: Blood analysis revealed an increase in the number of monocytes in the subgroup of women with a mild course of COVID-19 (7.14±1.81, ×109/l, $p<0.05$) relative to the control group (6.14±1.45, ×109/l). In the subgroup with moderately severe course of the disease no differences were found (6.59±1.78, ×109/l, $p>0.05$). The study of antigenic composition of monocytes in the blood of mothers revealed a more pronounced decrease in CD14 expression in the moderate (55.8±7.14%, $p<0.001$) than in the mild course of COVID-19 (80.88±9.07%, $p<0.001$) relative to the control group (94.76±2.71%). HLA-DR antigen expression was also decreased according to the severity of COVID-19 and was 79.94±7.52 % ($p<0.001$) in the mild course of the disease and 54.68±7.3% ($p<0.001$) in the moderate course relative to the

control group (95.16±2.78 %). In umbilical cord blood, the antigenic composition of monocytes relative to maternal blood had similar dynamics of changes. In the mild course of COVID-19, the expression of CD14 and HLA-DR in monocytes was 80.42±8.1% ($p<0.001$) and 8.41±8.42% ($p<0.001$), while in the moderate course of the disease it was 55.62±6.31% ($p<0.001$) and 57.93±7.46% ($p<0.001$), respectively, relative to the control group (95.63±3.08% and 95.31±2.29%). Further analysis showed significant correlations in the subgroup of women with mild COVID-19 between maternal and umbilical cord blood CD14 ($r=0.85$, $p<0.001$) and HLA-DR ($r=0.77$, $p<0.001$). There was also a correlation between COVID-19 severity and CD14 in maternal blood monocytes ($r= -0.86$, $p<0.001$) and cord blood ($r= -0.87$, $p<0.001$), HLA-DR in maternal blood ($r= -0.84$, $p<0.001$) and cord blood ($r= -0.82$, $p<0.001$).

Evaluation of pregnancy outcomes showed that the moderate COVID-19 course was associated with preterm labour in 12.5% of women (no preterm labour in mild COVID-19 course) and preterm rupture of fetal membranes in 27.5% (12.9% in mild COVID-19 course). The risk of premature rupture of foetal membranes was 2.13 times (95% CI 0.75-6.05) higher than in mild COVID-19.

Cerebral ischemia (P91.0) was diagnosed in 6.45% of newborns from mothers with mild COVID-19 and 21.9% with moderate COVID-19. Newborns from mothers with moderate COVID-19 had a 3.48-fold (95% CI 0.80-14.9) higher risk of cerebral ischaemia than newborns from mothers with mild COVID-19. Respiratory distress syndrome (17.5%) and intraventricular hemorrhage (12.5%) were diagnosed only in newborns from mothers with moderate COVID-19.

Conclusions

The decreased expression of CD14 and HLA-DR in maternal and umbilical cord blood monocytes revealed in the course of the study indicated the complexity of immune dysregulation, especially pronounced in the moderately severe course of COVID-19, which had unfavorable consequences for pregnancy and neonatal condition. Further deeper analyses of innate immunity will help to establish the pathogenetic mechanisms of obstetric complications and perinatal outcomes in COVID-19.

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COMPARISON OF CYTOKINES LEVEL IN THE CASE OF COLD SKIN INJURY IN THE BACKGROUND OF STANDARD THERAPY AND WITH THE USE OF BIOPOLYMER CONSTRUCTIONS

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Abstract. The study was conducted on 48 laboratory male rats, where the levels of cytokines IL-18, IL-10, IL-6 and IL-8 were compared in animals with deep skin frostbite after using the antibiotic levomecol and after using a biodegradable construct (BC) on a gelatin-ribose polymer base. When comparing the cytokine spectrum of laboratory animals, a statistically significant predominance of the anti-inflammatory cytokine IL-10 was recorded in the experimental group with BC compared to the experimental group with levomecol on day 7 by 1.09 times ($p<0.05$) and on day 14 by 1.19 times ($p<0.01$) after frostbite and a statistically significant decrease in the level of pro-inflammatory cytokines in the group with BC suturing after 14 days ($p<0.05$).

Keywords: cold skin injury, biopolymer constructs

The development of the Arctic territories has been intensifying in recent years, where low temperatures prevail and the risk of frostbite is high [1]. In the case of deep skin frostbite, one of the possible methods of therapy is the use of artificially created BC based on biopolymer structures, which have proven themselves well during tests on deep skin lesions after burns, epidermolysis bullosa [2]. Therefore, the study was conducted to compare the effect of BC on the dynamics of the inflammatory process in deep frostbite of the skin.

Objective

Evaluation of the inflammation markers in laboratory animals cytokine spectrum in the background of the use of BC based on gelatin-ribose polymer and using standard therapy on a model of deep frostbite of the skin in laboratory animals.

Materials and methods

The study was conducted on 48 outbred male rats kept under standard conditions in the vivarium of the Amur State Medical Academy. The average weight of rats was 176±12 g.

In accordance with the purpose of the study, three groups of animals were identified: intact group (n=6), control group (n=18), experimental group 1 (n=24). Animals of the control and experimental groups were subjected to local contact frostbite according to the procedure [4]. In the control group the animals were divided into 3 subgroups: in subgroup 1 (n=6), the animals were removed 24 hours after frostbite; in subgroup 2 (n=6), animals were removed 7 days after frostbite; in subgroup 3 (n= 6) the animals were hatched after 14 days. In the experimental group, a day after the formation of frostbite of the 3rd degree (deep frostbite), the primary surgical treatment of the wound was performed with the application of the antibiotic Levomekol. Then the animals of the experimental group were divided into 4 subgroups: subgroup 1 (n=6) and subgroup 3 (n=6) received standard therapy for cold injury using the antibiotic Levomekol with the withdrawal of animals on days 7 and 14, respectively; subgroup 2 (n=6) and subgroup 4 (n=6) were treated with cold injury using BS with the withdrawal of animals on days 7 and 14, respectively. All animals were taken out of the experiment in the morning on an empty stomach by thoracotomy and anemia by taking blood from the right ventricle of the heart.

The cytokine spectrum of inflammation markers in the blood serum was determined by evaluating the content of cytokines by enzyme-linked immunosorbent assay (ELISA) using the appropriate kits of reagents (JSC Vector-Best, Novosibirsk). The optical density was measured with an Antos 2020 photometer (Biochrom LTD, UK).

The manufacture of BC was carried out according to a patented technique [5].

Data were processed using Microsoft Excel 2010 Software.

Results and discussion

A statistically significant increase in the IL-18 index was revealed on the first day after frostbite compared with the intact group by 4.12 times ($p<0.01$). Comparison of the values of the cytokine IL-10 between the experimental groups showed a statistically significant predominance of the cytokine in the group with BC compared with the group with levomecol by 1.09 times on day 7 ($p<0.05$) and on day 14 by 1.19 times ($p<0.01$) after frostbite. Comparison of the values of the pro-inflammatory cytokine IL-6 between the experimental groups showed a statistically significant decrease in the content of the cytokine in the group with BC compared with the group with levomecol on day 14 ($p<0.01$). A statistically significant decrease in the level of IL-8 was revealed in the group with BC on the 7th day after frostbite by 2.5 times and on the 14th day by 1.21 times ($p<0.01$) compared with the values of the control groups.

Thus, a comparison of cytokines in laboratory animals of the experimental groups revealed a statistically significant increase in the level of IL-10 and a decrease in the level of pro-inflammatory IL-6, IL-8 and IL-18 in the group with BC suturing 14 days after frostbite compared with the level of these cytokines in the group without BC binding.

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CORRELATION AND REGRESSION ANALYSIS OF THE CONTENT OF INTERLEUKINES AND PRODUCTS OF OXIDATIVE MODIFICATION OF LIPIDS IN THE BLOOD OF NEUROLOGICAL PATIENTS WITH COVID-19

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Abstract. The results of the correlation and regression analysis of the content of pro-inflammatory interleukins and oxidized forms of lipids in the blood of neurological patients with COVID-19 confirm the close relationship between the development of inflammation and oxidative stress in neurological patients with the addition of coronavirus infection from the content of pro-inflammatory interleukins in the blood, namely the dependence of the content of products in the blood oxidative modification of lipids from the content of pro-inflammatory interleukins. This connection is most clearly seen in the case of interleukins 6 and 10. Unlike patients with COVID-19, in SARS-Cov2 negative neurological patients, this connection is detected only in the case of anti-inflammatory interleukin 10.

Key words: Neurological patients, COVID-19, interleukins, oxidation, lipids, correlations, regression.

Inflammation and oxidative stress are considered the most important pathogenetic mechanisms in the development of COVID-19 [1]. It is logical to assume that these processes are interconnected and mediators of the inflammatory response may play a certain role in the development of oxidative stress [2]. Interleukins are one of the mediators of the inflammatory response. Previously, we published the results of a study of the content of pro-inflammatory interleukins and products of oxidative modification of lipids in the blood of SARS-Cov2 negative neurological patients and patients with associated COVID-19. In both groups of patients, the content of interleukins and oxidized forms of lipids was increased in relation to healthy people, and characteristic changes were identified in the content of interleukins in the patient groups, consisting of a higher content of pro-inflammatory interleukin 6 and a reduced content of anti-inflammatory interleukin 10 in the group of patients with COVID-19 in relation to SARS-Cov2 negative patients [3]. This work presents the results of correlation and regression analysis in the content of interleukins and products of oxidative modification of lipids in the blood of SARS-Cov2 negative neurological patients and patients with associated COVID-19.

Aim of the study. In order to clarify the relationship between the processes of inflammation and the activation of oxidative processes during COVID-19 in neurological patients, conduct a correlation and regression analysis of the content of four interleukins and oxidatively modified lipids in the blood of SARS-Cov2 negative neurological patients and patients with associated COVID-19.

Materials and methods. The study group included 32 neurological patients with ischemic (18) and hemoragic (1) strokes, radiculopathies (5), polyneuropathies (5), paraplegia (2) and lumbar ischialgia (1), who were hospitalized in the neurological department of the Amur Regional Clinical Hospital. 15 patients were SARS-Cov2 negative (control group) and 17 with COVID-19. Correlation and regression analyzes were carried out using STATISTICA 64 12 software. Paired correlations were studied and paired linear regression coefficients were calculated between the blood levels of IL-6, IL-8, IL-10, IL-18 and oxidatively modified forms of lipids (diene conjugates, conjugated dienes and ketodienes, lipid hydroperoxides and a component of the antioxidant system vitamin E alpha-tocopherol) in the blood of patients.

Results and discussion. The results of the correlation analysis are presented in Table 1.

Table 1. Correlations between the content of interleukins and lipid oxidation products in the blood plasma in the examined groups

IL	Group	E_{204}	E_{233}	E_{233}/E_{204}	E_{278}	E_{278}/E_{204}	DC	LH	Vitamine E
IL-6	Control	0,03	0,35	0,33	0,27	0,16	0,37	0,29	-0,30
	COVID-19	-0,38	0,21	0,53	0,40	0,56	0,21	-0,21	0,14
IL-8	Control	0,16	0,11	0,03	-0,13	-0,32	0,11	0,06	-0,33
	COVID-19	-0,46	-0,15	0,11	-0,02	0,28	-0,15	-0,30	0,18
IL-10	Control	0,12	0,51	0,57	0,38	0,29	0,51	0,31	0,68
	COVID-19	0,49*	0,73**	0,81**	0,81**	0,75**	0,73**	0,53*	0,53*
IL-18	Control	0,25	0,01	-0,22	-0,03	-0,24	-0,01	0,00	0,12
	COVID-19	-0,31	-0,16	0,16	0,06	0,45	-016	-0,1	0,59

IL – interleukin; E_{204} absorption of non-oxidized lipids; E_{233} absorption of diene conjugates; E_{278} – absorption of conjugated dienes and ketodienes; DC – diene conjugates; LH – lipid hydroperoxides; * Significance level p<0.05; ** Significance level p<0.001

Significant correlations between the blood levels of interleukins and products of oxidative modification of lipids, as well as vitamin E (correlation coefficient >0.3) were established for pro-inflammatory interleukin 6, anti-inflammatory interleukin 10 and partly for interleukin 18. The content of interleukin 8 practically did not correlate with the content of individual products lipid oxidation. It is noteworthy that the correlation coefficients in the group of patients with COVID-19 were significantly stronger than in the control group. Thus, in the case of interleukin 10, most correlations were of moderate strength (>0.5<0.7) and strong (>0.7). Therefore, we conducted a regression analysis to establish the quantitative dependence of the content of oxidized forms of lipids on the content of interleukins in the group of patients with COVID-19 specifically for this interleukin. The results of determining the coefficients of paired linear regression are presented in Table 2.

Table 2. Coefficients of paired linear regression between indicators, reflecting the content of oxidized forms of lipids in the blood and the content of interleukin 10

Regression statistics		E_{233}	E_{233}/E_{204}	E_{278}	E_{278}/E_{204}	DC	LH	Vitamine E
R-square		0,533	0,663	0,651	0,555	0,532	0,276	0,279
Regression (F significance)		0,0031	0,00039	0,00048	0,0022	0,0030	0,053	0,052
Y-intersection	Coefficient P	0,0021 0,932	0,0482 0,032	0,0022 0,743	0,0170 0,124	0,395 0,932	76,2 <0,001	27,4 0,034
Variable X1	Coefficient P	0,0093 0,003	0,0101 0,0004	0,0032 0,0005	0,0042 0,022	1,786 0,030	2,68 0,053	2,58 0,052

From the presented results it follows that, taking into account the values of the coefficient of determination (R-square) and assessing the reliability of the values of regression coefficients (P), the most significant is the dependence of the E233/E204 indicator, representing the ratio of the content of diene conjugates to non-oxidized lipids, on the content of interleukin 10 in the blood The

equation reflecting this dependence will look like:

$$E_{233} / E_{204} = 0{,}0482 + E_{233} / E_{204} \times 0{,}0101$$

Conclusion. The results of the correlation and regression analysis confirm the close relationship between the development of inflammation and oxidative stress in neurological patients with the addition of coronavirus infection from the content of pro-inflammatory interleukins in the blood, namely the dependence of the content of lipid oxidative modification products in the blood on the content of pro-inflammatory interleukins. This connection is most clearly seen in the case of interleukins 6 and 10. Unlike patients with COVID-19, in SARS-Cov2 negative neurological patients, this connection is detected only in the case of anti-inflammatory interleukin 10.

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IN SILICO STUDY OF THE BIOACTIVE COMPOUNDS FROM THE PLANTS USED IN TCM

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Abstract. Using in silico methods, it was found that the cellular receptor for protopanaxadiol, the key biologically active substance of ginseng, is protein tyrosine phosphatase non-receptor type 1. The ligand interacts with Tyr 45, Phe 182 and Ala 217, blocking interaction with Cis 215, a key amino acid of the active site of the protein, suggesting that protoponaxadiol acts as an inhibitor of the enzyme, exert selective cytostatic effect on cell cultures with a high level of its expression and represent a potential chemical agent for the treatment of lung, prostate, and other tumors .

Key words: in silico, ginseng, ptotopanaxadiol, protein tyrosine phosphatase non-receptor type 1

Traditional Chinese Medicine (TCM) has been around for centuries and even millennia. Its component is the use of tinctures, decoctions, etc. from plants growing in China and containing various biologically active substances (BAS). Today, BAS contained in Chinese plants are used to produce modern dosage forms - tablets, capsules, injection solutions, etc. In the West, the effectiveness of TCM is questioned, and therefore an important problem is to prove its effectiveness based on the principles of evidence-based medicine. This goal is served by conducting in vitro and in vivo studies on cell cultures, experimental animals and clinical trials. In silico experiments can be used to elucidate the mechanisms of the biological effects of BAS contained in plants. Most bioactive molecules carry out their action by interacting with proteins or other macromolecules. However, for a significant part of them, the primary target remains unknown. In addition, most bioactive molecules have more than one target, many of which are poorly characterized. Computational predictions of bioactive target molecules based on similarity to known ligands allow one to narrow the number of potential targets and rationalize the side effects of known molecules.

Objective

We use bioinformatic approaches to explain the effects of the most famous plant in TCM, ginseng, whose main pharmacophores are triterpene (ginsenosides) belonging to three groups - protopanaxadiol, protopanaxatriol and oleanolic acid (Fig. 1) and have a wide range of medical and biological effects.

For the study, we chose protopanaxadiol and, using in silico methods, searched for its potential receptor proteins.

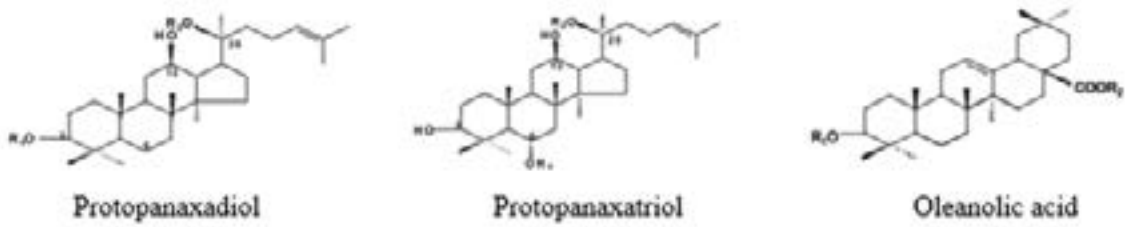

Figure 1. BAS of ginseng

Materials and methods

Information about the three-dimensional structure of protoponaxadiol was taken from the PubChem database https://pubchem.ncbi.nlm.nih.gov in the .sdf file format, and the search for its potential targets was carried out using the SwissTargetPrediction web service http://www.swisstargetprediction.ch which makes it possible to evaluate the most probable macromolecular targets of a small molecule supposed to be biologically active. The prediction is based on a combination of 2D and 3D similarity with a library of 370,000 known BAS for over 3,000 proteins from three different species. The receptor protein selected by the program with the highest predictive rating was used for further modeling of molecular interactions. The search for the molecular pocket for the ligand in the receptor protein and its coordinates was carried out in the Prank2Web web server https://prankweb.cz/ , where the results were selected according to the prediction rating and the similarity of the predicted amino acids with amino acids in the target protein annotation. Molecular docking was carried out in the AutoDock software for automatic docking https://autodock.scripps.edu/ , according to a standard protocol with 10 conformations. The results were exported to the BIOVIA Discovery Studio Visualizer software. https://www.3ds.com/products-services/biovia/products/molecular-modeling-simulation/biovia-discovery-studio/visualization/ for visualization and 2D imaging. To interpret the potential effect on molecular pathways, the technology of constructing artificial gene networks on the GeneMANIA platform was used. https://genemania.org/ .

Results and discussions

Prediction of the target protein for protoponaxadiol using SwissTargetPrediction showed that the most likely target of this ligand is the protein PTPN1 - protein tyrosine phosphatase non-receptor type 1. According to the annotation for this protein, the site of activity is amino acid S215, which is consistent with the Prank2Web prediction data. Prank2Web predicted a molecular cavity with center coordinates x=45.221; y=14.621; z=2.258 and formed by amino acid residues in positions 45, 47, 48, 119, 180, 181, 214, 215, 216, 218. The results of molecular docking show 1 probable conformation out of 10 possible with a binding energy of -7.45 kcal/mol (Fig.2).

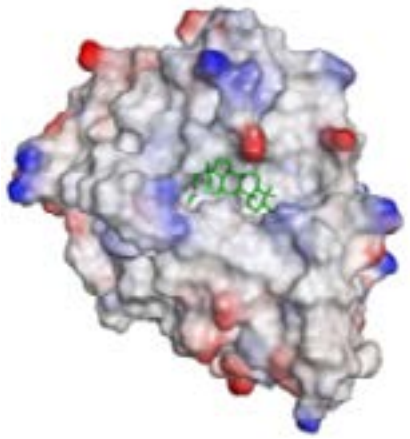

Figure 2. 3D image of the PTPN1 complex with protoponaxadiol

The 2D image data shows interactions with three amino acid residues Tyr 45, Phe 182 and Ala 217 (Figure 3.), blocking interaction with Cis 215, a key amino acid of the active site of the protein. This suggests that protoponaxadiol acts as an inhibitor of PTPN1.

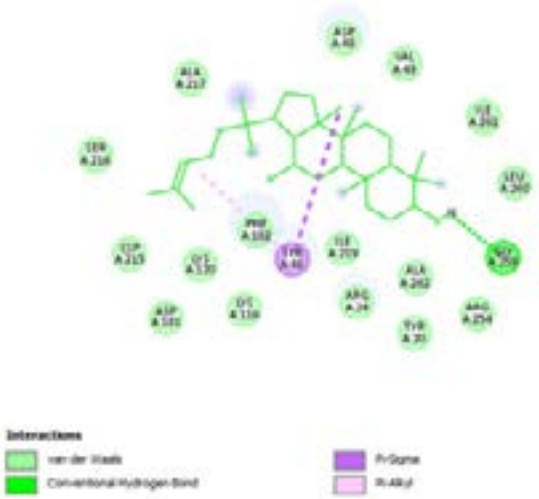

Figure 3. 2D visualization of a ligand in a molecular cavity

When modeling an artificial gene network, it was possible to identify key links in which PTNPN1 plays an important role (Fig. 4).

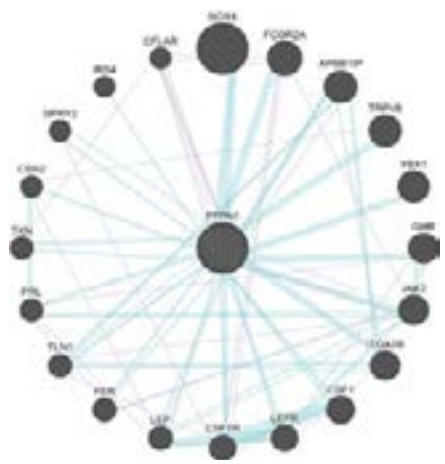

Figure 4. Artificial gene network demonstrating the involvement of PTPN1 in the cell signaling cascade

Conclusion

Considering the data of molecular modeling, indicating the presence of only one possible conformation of the complex of protoponaxadiol with PTPN1 with a high negative binding energy, as well as the annotation about PTPN1 in the ProteinHumanAtlas https://www.proteinatlas.org/ , it can be concluded that protoponaxadiol is an inhibitor of PTPN1 and due to this can inhibit the expression of certain genes and inhibit the proliferation of tumor cells. Thus, it possible to conclud that this ligand has a selective cytostatic effect on cell cultures with a high level of PTPN1 expression. A high level of expression of this protein can be observed in lung, prostate, and other tumors, which allows us to consider this protein as a target, and protoponaxadiol as a potential chemical agent for the treatment of this type of tumor.

USE OF MINIMALLY INVASIVE OSTEOSYNTHESIS METHODS IN THE TREATMENT OF CHILDREN'S POLYTRAUMA

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Abstract. The study analyzed the results of treatment of 23 children with combined and multiple injuries of the pelvic ring (from 15 to 50 points on the ISS scale). The use of external fixation in children with polytrauma using the damage control tactics allowed us to obtain excellent and good results in 20 out of 23 patients. The use of the developed method in the early period allows to reduce the intensity of bleeding, and in the late period - to prevent forced physical inactivity and the complications associated with it. Fixation of fractures of long bones with intraosseous fle**xible rods is optimal for the treatment of skeletal trauma in children.**

Key words: pelvic injuries, childhood trauma, polytrauma, damage control, external fixation, internal fixation with flexible rods.

Relevance of the problem

Combined and multiple pelvic injuries in children, which have become increasingly common over the past decade, may serve as evidence of the growth of high-energy trauma both in Russia and around the world. The growth of technological progress gives rise to an increase in these injuries in the adult population, but children, being, a priori, the most protected part of society, are always the most protected. Therefore, the increase in the number of polytraumas, which include pelvic ring injury in this population group, is a kind of indicator of an increase in the number of severe injuries in the entire population. All of the above makes the search for new technologies for the diagnosis and treatment of this injury relevant.

Purpose of the study

Improving the results of treatment of children with pelvic trauma through the development and application of new highly effective methods of diagnostic and treatment tactics.

Materials and methods of research

The results of treatment of 23 pediatric patients with pelvic injuries due to polytrauma treated at the Amur Children's Regional Clinical Hospital from 2000 to 2021 were analyzed. The age of the patients ranged from 3 to 17 years. 14 boys and 9 girls.

According to the AO/ASIF fracture classification, the majority of patients (17 cases) were diagnosed with relatively stable and unstable pelvic injuries (type B and C). All pelvic fractures were closed. Traumatic brain injury was diagnosed in 8 victims, injuries of internal organs in 12, skeletal fractures of other localization in 3. Most patients (18) were delivered to the clinic within 1 day to 2 weeks, 5 patients - within 3 hours. By nature, all injuries were of a high-energy nature (road and catatrauma).

According to the ISS scale, injuries ranged from 15 to 50 points.

Damage control tactics was used in the treatment of all patients. Within the framework of the latter, the ATLS protocol, anti-shock fixation with internally designed external fixation rods against the background of intensive anti-shock treatment and intracavitary bleeding was used. After stabilization of the general condition (on days 6-8), the final reposition of the fragments was performed using one of the above methods.

When choosing a method for the final osteosynthesis of an unstable pelvic ring injury, we used our own algorithm (rational proposal No. 1837 dated March 20, 2012), fractures of long bones were synthesized by TEN.

Three patients with unstable pelvic fractures were operated on using original technology: a device for repositioning and stabilizing the posterior pelvis in fractures of the sacrum and ruptures of the sacroiliac joint (priority reference No. 2011100924) and a method for transosseous osteosynthesis of unstable pelvic injury (patent for invention No. 2457805).

Four patients with unstable pelvic fractures underwent osteosynthesis of the sacroiliac joint with a screw in combination with an external fixation device in the area of the anterior semicircle.

Two patients with damage to the acetabulum underwent osteosynthesis with screws.

In all cases, parental consent was requested for the operation.

Anatomical and functional results of treatment were evaluated according to the methods of Shlykov I.L. (2004) and Majeed S.A. (1989; 1990).

Statistical processing of the results of the study has not yet been carried out, since the material of the study includes a small number of observations in different age groups of children.

In addition, it is extremely difficult to form a comparison group based on the analysis of materials from our clinic, given that before the use of surgical treatment (from 1990 to 2005), patients were treated conservatively and the number of such observations in our clinic did not exceed three cases.

Research results

In patients at the end of treatment, in 3 cases out of 23, residual deformity from 3.0 to 15 mm was detected. Moreover, in the process of the child's growth, this deformity was leveled (long-term results were assessed in terms of 1 to 14 years after the injury).

The functional outcome of the treatment was assessed as excellent in 16 patients and as good in 4 patients.

Separately, the results of treatment in a 15-year-old patient with long-term neurological consequences of a sacral injury and the consequences of damage to internal organs in a 9-year-old patient with crushing of the pelvic ring with a snowplow were evaluated separately.

In both of these cases, the musculoskeletal system was restored quite successfully, but the presence of these complications does not allow us to consider the result of treatment as completely successful, since there are signs of disability.

Conclusion

The use of damage control tactics in the treatment of children who have received a severe pelvic injury due to high-energy injuries can effectively save lives and prevent the development of severe complications. According to the ISS scale, an assessment of the severity of damage of 15 points in children already requires the use of damage control tactics and corresponds to the diagnosis of polytrauma, that is, it implies the involvement of organs and tissues in the pathological process that were not affected as a result of the primary injury.

In most cases, external fixation was used in the treatment of children with pelvic polytrauma. It can be used not only for anti-shock stabilization, but in most cases it allows to achieve a satisfactory anatomical and functional result in disintegrating injuries of the pelvic ring, especially in patients with polytrauma.

The use of the developed method in the early period allows to reduce the intensity of bleeding, and in the late period - to prevent forced physical inactivity and the complications associated with it.

The modular principle of construction of this AVF makes it possible to supplement the anterior (anti-shock) module with the posterior one (after stabilization of the patient's vital functions) with the final repositioning of both the anterior and posterior pelvis.

Fractures of long tubular bones in children with polytrauma should be urgently fixed with anti-shock AVF, and final osteosynthesis should be performed with intra-osseous flexible rods, which can be equated to minimally invasive osteosynthesis.

In patients with two-column injuries of the acetabulum, preference should be given to minimally invasive internal fixation, which allows for accurate reposition and causes minimal trauma to the blood supply.

Bilateral unstable fractures of the pelvis and fractures of the sacrum with nerve root compression should be operated using transpedicular fixation.

Fractures of the anterior half ring complicated by urination disorders in emergency cases should be operated on by AVF, and in case of inaccurate reposition, then proceed to internal osteosynthesis.

ASSESSMENT OF CHANGES IN NEUROPSYCHOLOGICAL AND FUNCTIONAL STATUS IN PATIENTS WITH ORGANIC PERSONALITY AND BEHAVIOR DISORDERS

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Abstract. In patients with an organic disorder of personality and behavior, the parameters of the neuropsychological and functional status were assessed. It was found that patients have reduced visual-constructive/executive skills, in particular, fluency, delayed reproduction, abstract thinking. In comparison with healthy volunteers, in patients with an organic disorder of personality and behavior, work efficiency and concentration of attention were 3 times lower. Assessment of cognitive dysfunction showed the presence of moderate cognitive dysfunction in the majority of patients with organic personality and behavior disorders (47.5–55.0%). An analysis of the severity of functional status disorders in the performance of daily activities according to the Lawton scale indicated a moderate dependence, correlating with the Barthel index of activity in everyday life.

Key words: organic disorder of personality and behavior, patients, cognitive impairments, functional status.

Organic disorder of personality and behavior is one of the most common nosologies in the structure of mental illness and continues to grow annually [2, 5]. Changes in the neuropsychological and functional status in patients with an organic disorder of personality and behavior are expressed by impaired memory and attention, critical abilities, and voluntary regulation of their behavior [3, 4]. In this regard, the timely diagnosis of an organic disorder of personality and behavior with the determination of the parameters of the neuropsychological, cognitive and functional status is of particular importance in the practice of a psychiatrist [1].

Objective

Evaluation of changes in neuropsychological and functional status in patients with organic personality and behavioral disorders.

Materials and methods

On the basis of the Amur Regional Psychiatric Hospital, a prospective, controlled, open, randomized study was conducted involving 80 patients diagnosed with Organic Personality and Behavior Disorder. The comparison group consisted of healthy volunteers (n=20). Cognitive status was assessed using the Montreal Cognitive Assessment Scale, the Schulte technique, the 10-word test, the Global Deterioration Scale (GDS); the functional status of patients - using the Lawton scale of instrumental activity in daily life (IADL), the Barthel activity index. Statistical processing of the results was carried out using Microsoft Excel 2016 and the Statistica program. Quantitative indicators were analyzed for compliance with the normal distribution using the Shapiro-Wilk test. Based on the quantitative analysis and graphical representation of frequency histograms, it was stated that most of the quantitative data did not correspond to the normal distribution against the background of a small number of observations, which became the basis for describing the results by calculating the median (Me), lower and upper quartiles [Q1;Q3]. Comparison of the two groups in quantitative terms was performed using the Mann-Whitney U-test. The critical significance level was taken equal to 0.05.

Results and discussion

Patients with an organic disorder of personality and behavior showed statistically significant changes in the neuropsychological status according to the Montreal scale in comparison with healthy volunteers: the patients experienced the greatest difficulties in passing the MoCA test when performing tasks demonstrating visual-constructive / executive skills, in particular, fluency of speech , delayed playback, abstract thinking. According to the Schulte method, the average time spent on one table by a patient with an organic disorder of personality and behavior was 3 times higher than that of healthy volunteers, which affected work efficiency and insufficient concentration of attention on a specific search task. According to the «10 words» method, a statistically significant decrease in the volume of auditory memory was registered (short-term - by 43% on the 1st day and by 37% on the 11th day, $p<0.05$; long-term - by 23-39%, $p <0.05$). Assessment of cognitive dysfunction using the GDS scale showed the presence of moderate cognitive dysfunction in the majority of patients with an organic disorder of personality and behavior (47.5–55.0%). An analysis of the severity of functional status disorders in the performance of daily activities according to the Lawton scale (IADL) indicated a moderate dependence, correlating with the Barthel index of activity in everyday life with a high correlation coefficient ($r = 0.960$).

Thus, in patients with an organic disorder of personality and behavior, changes in the neuropsychological, cognitive and functional status are recorded, which requires the prescription of drugs that correct these disorders.

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CLINICAL OBSERVATION OF ACUTE RESPIRATORY DISTRESS SYN-DROME WITH RESTORATION OF THE STRUCTURE AND FUNCTION OF THE LUNGS AFTER CABG BYPASS SURGERY IN CONDITIONS OF AR-TICULAR CIRCULATION

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Abstract. Clinical observation of an acute respiratory distress syndrome (ARDS) with the res-toration of the structure and lung function after the operation of the aorto-hunkering in the condi-tions of artificial circulation. In this observation, the use of the indicators of the gas composition of the blood contributed to the maximum early (before the detailed clinical picture) diagnostics of the ARDS, which allowed to start aiming therapy, choose the necessary lung ventilation strategy. All these measures led to the prevention of irreversible complications. The forecast is favorable.

Key words: aorticronary shunting, acute respiratory distress syndrome

Cardiac surgery traditionally occupies the positions of one of the most dynamically developing sec-tors of medicine with the characteristic constant improvement of surgical technology, artificial blood circulation techniques, myocardial protection and anesthetic support. This led to both a decrease in mortality and to the appearance of the possibility of performing operations to the elderly and senile age, patients with pronounced concomitant pathology and patients with extremely severe heart le-sions. Against the background of such successes, the fact that the problem of periodic violations of the respiratory system remains no less urgent cannot but worry. So, in the structure of early compli-cations after the interventions on the heart and aorta, the fraction of acute respiratory failure (ORF) accounts for 5 - 12%. The most severe form of ONE - the acute respiratory distress syndrome (ARDS) develops after 0.5 - 2.5% of such surgery with mortality reaches 40.5% [1]. Today, there is no specific treatment of the ARDS, since there are no effective methods for correcting pathological vascular permeability and inflammatory process in patients with this pathology, therefore, therapy is aimed at optimizing the oxygen balance in the body and treatment of the main pathology [2].

Materials and methods: clinical observation from the practice of authors is given.

Results and discussion. Patient X. 52 years old, with a clinical picture of ischemic heart dis-ease, entered the cardiac surgery of the Cardiacurgery of the Amur State Medical Academy in No-vember 2022 with a diagnosed multi-vascular defeat of the coronary channel according to the selec-tive coronarography, for planned surgical treatment-coronary noise. Upon receipt, the condition is regarded as a medium serious, of the features - there was a concomitant pathology: type 2 diabetes mellitus, primary hypothyroidism, obesity of the second (BMI 30.47 kg/m2). The bronchopian sys-tem upon receipt according to the CT chest organs without features. After the preparation of No-vember 16, 2022, "Mammaro-Coronar Shunting was performed: I-Grack- posterior interventricular branch, T-Grack- anterior descending artery, left thoracic artery- obtuse branch-1", the duration of the operation is 4 hours 35 minutes, the artificial blood circulation was 75 minutes, occlusion of the aorta 55 minutes, the course of the operation without features. In the early postoperative period, the patient's condition is stably severe, extracted on the first day after surgery (in view of the clarity

of consciousness, stability of hemodynamics, satisfactory muscle tone), transferred to non -invasive ar-tificial ventilation using the Hamilton apparatus through a full -faced mask with short interpretations for meals, In view of the preserved respiratory failure (changes in the indicators of the gas composi-tion of arterial blood arterial blood2 35%, arterialPO2 35%, pCO2 95%). Against the backdrop of non -invasive respiratory support, laboratory and instrumental signs of acute respiratory failure were preserved: PaO2 \ FiO2 200 mm Hg, as a result of which planned orotracheal intubation was per-formed and invasive artificial lung ventilation. P-SIMV parameters were selected, which allowed the patient to breathe on his own and provided a forced minimum respiratory volume during sleep (respiratory volume 5-7 ml / kg, positive end-expiratory pressure 10-14 cm water, FiO2 50-70%). According to the obtained indicators (48 hours from the moment of operational treatment), a heavy ARDS is verified. The patient had periodic spontaneous pneumothoraxes due to relatively strict pa-rameters of the IL with positive end-expiratory pressure up to 14 cm of water. Art., Dre, surgically surgically by installing drainage. Given the low prospect of rapid excommunication from the Ivl, the patient was imposed in a tracheostoma. On the 16th day, given the pronounced leukocytosis (20 × 109/l), a subphibrical increase in body temperature is not amenable to stopping with antipypeisks, as well as signs of polysegmorous pneumonia according to computed tomography, antibacterial therapy (c/c) by the 2000 mg 3P was replaced day., a smear is taken to the PCR test to exclude covid19. When sowing flushing water from bronchial wood, Streptococcus Pneumonia 106 was obtained, an-tibiotic therapy was replaced, taking into account sensitivity on phosphomicin 2000m 2p/day and pipeprocillinatazobacts 4000 mg+ 500 mg 3P/day. When sowing urine and blood, microflora growth was not detected. According to the result of the polymerase chain reaction, a smear from the phar-ynx and nasopharynx (2 times with an interval of three days), as well as the Igg IGM level, data in-dicating the presence of coronavirus infection. On the 20th day of hospitalization, the therapy was carried out to improve well-being, at this stage, IVL was a priority regime of artificial lung ventila-tion, ASV (automatic regime of intellectual ventilation with respiratory volume, FiO2 and positive end-expiratory pressure, respiratory volume of 4-6 ml/kg, positive end-expiratory pressure. 5-9 cm vod.St., FiO2 40-50%). In parallel, every 2-3 days, sanctions-fibrobronchoscopy courses were held, and in the breaks between the FBS, sputum of the sputum by a closed aspect system for the reor-ganization of the bronchial tree was carried out. From 45 days, gradual excommunication from the artificial lung ventilation (SPONT+PSDICAL volume 5-7 ml/kg, ps 3-5 cm of water. Art., PDKV 3-5 mm Vod, FIO2 40%), disconnection from IL to 2 -3 hours, from 50 days, shutdown for a day, as-seting the patient, expansion of the motor regime, 54 days after surgery in the patient is removed with a tracheostoma, the patient's breathing is independent. Within three days, the condition re-mained stable, an objective and subjective improvement in the condition was noted, g-modynamics remained stable, the patient was translated from the intensive care unit and intensive symbolic ther-apy in the common room. After 7 days, it was discharged for outpatients of home.

Conclusion: In the given case, the use of indicators of the gas composition of the blood contributed to the maximum early (before the detailed clinical picture) diagnostics of the ARDS, which allowed to start aiming therapy in a timely manner, choose the necessary lung ventilation strategy. All these measures led to the prevention of irreversible complications. The patient had the following risk fac-tors for the occurrence of ONE: a long traumatic operation using artificial circulation; transfusion of freshly frozen plasma, red blood cells; Relaxation of the right dome of the diaphragm as a surgical complication of the operation. This circumstance additionally slowed the regression of respiratory failure and excommunication from the fan after stopping the ARDS. The use of modern technolo-gies for the treatment of this postoperative complication made it possible to successfully overcome such "formidable" complications as acute respiratory failure and acute respiratory distress syndrome.

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ISSUES IN EARLY DIAGNOSIS OF ACUTE HEPATITIS A: A CLINICAL OBSERVATION CASE STUDY

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Abstract. At the present time, acute hepatitis A (AHA) acquires new features distinctive from its classical nosology, particularly in adult patients, which complicates early and timely diagnosis at the primary health care stage. AHA is a cyclic disease characterized by epidemic increases in morbidity at certain intervals and, as a result, a decrease in alertness among doctors in the early diagnosis of this pathology during the period of relative well-being [2].

Keywords: acute hepatitis A, prodromal period, clinical diagnosis, adults

Objective

To study the early clinical diagnosis of OHA in a 46-year-old female patient with a moderate form of this disease.

Materials and methods

Clinical and epidemiological analysis of the inpatient medical record (Form 030/y) maintained by the State Autonomous Healthcare Institution of the Amur Region "Amur Regional Infectious Diseases Hospital" (ARIDH); the diagnosis "B15.9 Hepatitis A without hepatic coma" was established in 2022.

Results and discussion

Patient V., 46 years old, a rural resident, was hospitalized in the ARIDH through a referral by an infectious disease specialist with the following complaints: right subcostal pain, scleral and skin icterus (jaundice), dark urine, heartburn, gaseous eructation, decreased appetite, fatigue, weakness.

According to the medical case history, the patient became acutely ill at the beginning of August, displaying headache, chills, weakness, and fever up to 37.6°C. Due to that she sought outpatient medical help. She was given antipyretic and antiviral therapy, in the course of which her fever reached febrile values with added muscle pain. The patient consulted with a infectious disease specialist; the novel coronavirus was excluded. In the following days, she displayed subfebrile fever coming and going in waves, astheno-vegetative and dyspeptic syndromes, as well as cytolytic syndrome of increasing severity. On the sixth day of the disease, viral hepatitis B and C, as well as hepatocellular carcinoma were ruled out by laboratory diagnostic methods (PCR, CLIA) on outpatient basis. On the eleventh day, there were added symptoms of scleral and skin icterus and dark urine; astheno-vegetative symptoms and subfebrile condition persisted. On the sixteenth day of the disease, the patient was referred for consultation to the ARIDH. When clarifying the epidemiological history, it was revealed that the patient lives in a private house and sometimes drinks raw unboiled water. In 2015, she underwent osteosynthesis of lower leg bones; other risk factors for parenteral transmission of viral hepatitis have not been established. No vaccination certificate was provided. Anamnesis vitae was mostly unremarkable.

At the time of admission, the patient's condition was of moderate severity due to astheno-vegetative, dyspeptic, cholestatic, cytolytic, and mesenchymal-inflammatory syndromes. The laboratory examination and imaging data ruled out viral hepatitis E and detected F1 hepatic fibrosis (METAVIR system). The primary clinical diagnosis was as follows: B15.9 Acute viral hepatitis A (anti-HAV IgM ELISA, HAV RNA serum PCR), icteric, moderate severity, cyclic. During the hospital stay, the patient was diagnosed with pneumonia without pronounced catarrhal-respiratory phenomena and auscultatory data. She received therapy according to the established diagnosis. On the sixteenth day of inpatient treatment, the patient was discharged with clinical recovery; further follow-up care by an infectious disease specialist was recommended.

Conclusion

The prodromal period of AHA in adults is currently characterized by polymorphism and uncertainty of clinical manifestations in adults, which complicates differential diagnosis and may result in untimely hospitalization and suboptimal therapy of this pathology [2]. In the studied clinical observation, the preicteric phase had a mixed course, the confirmation of the diagnosis at the outpatient stage was protracted. The diagnostic search was aimed at ruling out viral hepatitis transmitted via a parenteral route and liver cancer, since the epidemiological history data were not fully accounted for. The AHA infection process does not display a tendency to become chronic, however, according to the academic literature of recent years, a prolonged or recurrent course of the disease, sometimes accompanied by the development of cholestasis, cannot be ruled out. Trends in modern

OHA are a more severe course of the disease in adults, the possibility of extrahepatic manifestations (nephritis and vasculitis), added complications in the biliary tract and gastroduodenal area, as well as prolonged or lifelong hepatic fibrosis in some patients [1,3]. Thus, the described clinical case illustrates the importance of a comprehensive collection of epidemiological history in patients with icteric syndrome.

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VITAMIN D STATUS IN WOMEN WITH TUBERCULOSIS

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Abstract. The study was conducted at the Phthisiatry Research-Practice Center in Yakutsk. 70 hospitalized women with confirmed TB diagnosis and 70 women with ruled out TB were observed. Informed consent was obtained from all participants in compliance with an ethics code. Apparently healthy state with no signs of acute diseases or exacerbation of chronic diseases was ensured at enrolment; no one was taking vitamin D at enrolment. Mean ages were 40.9 and 43.3 in respective groups. The study results have shown the presence of vitamin D deficiency in women with TB. Healthy women in our study likewise demonstrated abnormal vitamin D levels. The study results have shown the presence of vitamin D deficiency in women with TB. Healthy women in our study likewise demonstrated abnormal vitamin D levels. Normal vitamin D levels were observed only in 5.7% of TB patients and in 11.4% of healthy women.

Keywords: vitamin D, tuberculosis, 25 (OH) D

Materials and methods

The study was conducted at the Phthisiatry Research-Practice Center in Yakutsk. 70 hospitalized women with confirmed TB diagnosis and 70 women with ruled out TB were observed. Informed consent was obtained from all participants in compliance with an ethics code. Apparently healthy state with no signs of acute diseases or exacerbation of chronic diseases was ensured at enrolment; no one was taking vitamin D at enrolment.

ELISA was performed to determine vitamin D 25(OH) in serum, using assay kits from Euroimmun (Germany).Concentration of serum 25(OH)D was assessed based on the following criteria: optimal level (30-100 ng/mL); abnormal level (20-30 ng/mL); vitamin D deficiency (10-20 ng/mL); severe vitamin D deficiency (less than 10 ng/mL).

Statistical processing was done using IBM SPSS Statistics v24.0 software suite. Descriptive statistics are presented as median with interquartile range: Me (Q1; Q3). Nonparametric Mann-Whitney test was used to do comparisons between groups.

Results and discussion

Mean ages were 40.9 and 43.3 in respective groups.

Vitamin D status in women was assessed using clinical guidelines developed by the Russian Association of Endocrinologists, based on international evidence.

Median 25(OH)D concentration was16.1 ng/mL in TB patients, and 14.9 ng/mL in healthy controls, and wasclassified as vitamin D deficiency. No statistically significant differences in serum 25(OH)D levels were found between TB patients and healthy women (p=0.861, Mann-Whitney test).

Women with 25(OH)D deficiency made majority both among TB patients and among healthy women: 45.7%(32) and 40%(28), respectively. Interestingly, severe deficiency was observed more

often in healthy women (34.3%; 24). Normal levels of 25(OH)D were observed only in 5.7% of TB patients and in 11.4% of healthy women.

Mean 25(OH)D levels in all clinical forms of TB were consistent with vitamin D deficiency.

Conclusion

The study results have shown the presence of vitamin D deficiency in women with TB. Healthy women in our study likewise demonstrated abnormal vitamin D levels. Normal vitamin D levels were observed only in 5.7% of TB patients and in 11.4% of healthy women.

MESOMETRIAL MESENTERY - METHODS OF STUDY IN ANIMALS IN ANIMALS WITH HEMOCHORIONIC PLACENTA

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Abstract. The main aim of Reproductology is to study reproduction in all its manifestations at the organismal level and to manage this basic function of Health. Many medical problems of Reproductology are still in the hands of experimentalists [1]. White rats are an adequate model for the study of the reproductive system (RS), since they have a biphasic sexual cycle, hemochorionic placenta, and common critical periods of pregnancy development with humans. The present study of the RS includes a set of anatomo-morphological methods to evaluate the most important organ participant of reproduction - the mesometrial mesentery with its mast-cell apparatus (MC) and its role in the regulation of sexual cycles and stages of pregnancy development [2].

Key words: mesometrial mesentery, mast cells, anatomical and morphological study.

Objective

To substantiate the feasibility of introducing a complex of anatomo-morphological methods of research for objectivization of the TC response of rat mesometrial mesentery with the analysis of their secretory activity in the dynamics of estrous cycle at the stages of preovulatory and preimplantation preparation of the reproductive system.

Materials and methods

The work is experimental in nature and was carried out on 110 white rats (Rattus norvegicus) of Rodencia, Muridae family. On the film total preparation of uterine mesentery with isolation of structural-functional unit - differon - the secretory activity of TC of laboratory rats at the phases of estrous cycle (EC) was evaluated by complex methods of research. The stages were identified by cytodiagnostics of vaginal smears and by radionuclide methods of FSH, LH, progesterone determination. Anatomo-morphological methods of research were introduced: angiography of the uterine vascular bed by pouring colored contrast media, light and semi-thin microscopy. Based on the stereometry of mesometrial TCs, their following populations were identified: perivascular (PV), associated with the vascular bed and transient (TR) - free lying in the mesometrium. Absolute values of perimeter, area, length, width, X-projection, and U-projection of TCs and values of their form factors (orientation, elongation, compactness, squareness, roundness, and equivalent radius) were evaluated by stereological analysis. The following criteria were used for summary objectivization of TC secretory activity: cytogram depending on the degree of cytoplasm compactness, saturation index of TCs of different maturity degrees, degranulation index, relative «resting» index, and the degree of TC association. All indices were subjected to correlation and discriminant analyses. The results of the study were entered into the database of the program package of the automated system [3], taking into account the indices of each phase of EC with the subsequent statistical processing of the results. The correlation analysis of stereological parameters of TC was based on the model of EC of sexually mature rats and included 12 arguments in the study: a) gravimetric parameters of organs or complexes (uterus, ovaries, thymus, spleen, liver, lung-trachea-heart complex) in relative units (per unit of animal weight), left and right adrenal glands, and rat weight; b) pituitary hormones (FSH, LH), blood plasma progesterone.

Results and Discussion

Mast cells attract the attention of researchers due to their multifunctional properties, participation in inflammation, allergic reactions and pathological processes. They are regarded as an obligatory multifunctional receptor-effector cell system with different variants of organ topography [4]. Its study in physiological reactions on synchronization of functions of the organ complex RS at the stages of ovulation and pregravid preparation is in demand.

To study the effector act of TCs, their morphology in the dynamics of ECs was objectified with the estimation of absolute planar parameters and allocation of groups with different degrees of secretory activity on the basis of histograms. The maximum indices of its tension were revealed in the phases of estrus and proestrus. The criteria of activity were the following: 1) predominance of the specific weight of degranulating TCs both in the composition of SP and TR in topographic populations with a significant number of actively synthesizing secretion and a small specific weight of light TC; 2) maximum values of planar parameters of TCs, including perimeter and area, maximum and minimum diameters, X-projection value, and equivalent radius, characteristic of compact and degranulating TCs in both topographic populations during the preovulatory and ovulatory phases; 3) significant limits of variation of linear and area units inherent to all groups of TCs at different stages of the secretory cycle in estrus and proestrus; 4) predominance of activity indicators in the category of SP TC over TR in the preovulatory phase and, on the contrary, a greater degree of functional stress on the part of degranulating TR cells at the ovulatory peak.

The high amplitude of fluctuation of secretory activity fluctuation of uterine mesenteric TCs at the stages of the sexual cycle, genetically determined for PCs, indicates their participation and significant reserve capabilities in the conditions of physiological estrous cycles during ovulatory and preovulatory preparation of the reproductive systemcomplex.

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SIDE EFFECTS OF ANTIBACTERIAL DRUGS IN THERAPY OF PULMONARY TUBERCULOSIS WITH MULTIPLE DRUG RESISTANCE OF THE AGENT

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Abstract. In patients with multidrug-resistant pulmonary tuberculosis, in the vast majority of cases, the development of complications of antibiotic therapy is recorded by the end of the fourth week of chemotherapy. Among the side effects of chemotherapy drugs, hepatotoxic reactions are most often observed with an increase in the activity of hepatic transaminases and total bilirubin. After 2-3 months of antibiotic therapy, the level of liver enzymes statistically significantly exceeds the reference values with a subsequent decrease by the end of 4-6 months of chemotherapy. In patients with multidrug-resistant pulmonary tuberculosis, mild hepatotoxic reactions are twice as common as moderate ones.

Key words: side effects, antibacterial drugs, hepatotoxicity, pulmonary tuberculosis, patients.

The treatment of multidrug-resistant pulmonary tuberculosis involves the use of chemotherapy drugs with a more pronounced toxic load on the patient's body [1, 6]. Anti-tuberculosis drugs have side effects on the cardiovascular, hematopoietic and nervous systems, cause changes in the functional activity of the gastrointestinal tract and, with a high frequency of occurrence, contribute to the development of hepatotoxic reactions of varying severity [3-5]. In this regard, the assessment of the severity of complications of chemotherapy of pulmonary tuberculosis with multidrug resistance of the pathogen is of interest.

Objective

Evaluation of side effects of antibacterial drugs in the treatment of pulmonary tuberculosis with multidrug resistance of the pathogen.

Materials and methods

The study was conducted on the basis of the Sakhalin Regional TB Dispensary in 2021-2022. Under observation were 25 patients with newly diagnosed pulmonary tuberculosis with multidrug resistance of the pathogen. One of the criteria for

inclusion of patients in the study was the compliance of indicators of the functional activity of the liver with the reference values before chemotherapy. All patients included in the study received the first standard regimen of chemotherapy until the results of sputum culture and the detection of multidrug resistance of Mycobacterium tuberculosis were obtained. After establishing the drug resistance of the pathogen and clarifying the diagnosis, patients were transferred to the fourth standard regimen (pyrazinamide, ethambutol, prothionamide, capreomycin, levofloxacin, cycloserine). The side effects of chemotherapy in the liver were assessed based on the analysis of the activity of alanine aminotransferase, aspartate aminotransferase, alkaline phosphatase, the concentration of total bilirubin before treatment and by the end of each month of therapy up to six months [2]. When registering complications of chemotherapy using the Common Terminology Criteria for Adverse Events (CTCAE, Version 5.0) scale, the severity of hepatotoxic reactions was assessed. Statistical analysis of the obtained results was carried out using the program «Statistica v.10.0».

Results and discussion

According to the results of the observation, by the end of the first month of chemotherapy, the activity of alanine aminotransferase exceeded the reference range in 10 patients (40%), aspartate aminotransferase - in 9 (36%), alkaline phosphatase - in 10 (40%), total bilirubin was above the reference values in 7 patients (28%). The frequency of observations of excess levels of liver transaminases and bilirubin activity tended to persist by the end of the second and third months of chemotherapy (36%, 36%, 40% and 32%, respectively). With further use of anti-tuberculosis drugs during the fourth, fifth and sixth months of treatment, a gradual regression of side effects was observed with stabilization of the activity of liver markers. Analyzing the severity of hepatotoxic reactions on the CTCAE scale, the presence of the first degree (hepatotoxic reactions of mild severity) was noted in 16 patients (64%), the second degree (moderately severe) in 9 patients (36%).

Thus, the results of assessing the side effects of antibacterial drugs on the liver suggest the use of hepatoprotective agents from the first days of chemotherapy in order to normalize the functional activity of the liver in the treatment of multidrug-resistant pulmonary tuberculosis.

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ASSISTANCE TO A GENERAL MEDICAL NETWORK PRACTITIONER IN THE DIAGNOSIS OF TUBERCULOSIS IN THE FORM OF A MOBILE APP

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Abstract. The epidemiological situation of tuberculosis indicates that adults with undetected tuberculosis patients who secrete Mycobacterium tuberculosis and are a source of infection are circulating among the population. In this regard, the question arises of informing the population and non-phthisiological doctors about tuberculosis and its prevention in the most convenient way, such as a mobile application. Based on this, the mobile application «Phthisiatrician» was developed.

Keywords: app, doctors, differential diagnosis, tuberculosis, questionnaire.

The World Health Organization (WHO) has developed a strategy to eliminate tuberculosis by 2035. «End TB». in 2021, there was a significant increase in the incidence of tuberculosis for the first time in the last 20 years. According to the WHO Global Report on Tuberculosis Control, the number of patients with a confirmed diagnosis in 2021 amounted to 10.6 million people, which is 4.5% higher than a year earlier. Mortality rates have also increased - 1.6 million people died from tuberculosis in the world in 2021, 1.5 million in 2020, and 1.4 million in 2019. Thus, in terms of mortality, humanity has returned to the level of 2017.

In the Republic of Sakha (Yakutia), there is a positive trend in the incidence and mortality rates from tuberculosis, but the epidemiological situation for tuberculosis continues to be tense. In 2021, the incidence of tuberculosis in Yakutia was 30.4 and the mortality from tuberculosis was 2.9 per 100 thousand population.

According to the results of 10 months of 2022 in Yakutia, there is an increase in the indicators of disease and mortality from tuberculosis. The spread of the disease among adults increased by 34% according to the State Budgetary Institution of the Republic of Sakha (Yakutia) Scientific and Practical Center «Phthisiology» named after E.N. Andreev.

This situation indicates that adults with undetected tuberculosis patients who secrete Mycobacterium tuberculosis and are a source of infection are plying among the population.

In this regard, the question arises of informing the population and non-phthisiological doctors about tuberculosis and its prevention in the most convenient way, such as a mobile application.

Objective

To develop and implement a mobile app to help the practitioner of the general medical network in the diagnosis of tuberculosis.

Materials and methods

A questionnaire was developed for doctors of all specialties and an online survey of respondents was conducted on the subject of «Do doctors need an application in a mobile device on phthisiology for differential diagnosis?». The study was conducted on the basis of the Department of Infectious Diseases, Phthisiology and Dermatovenerology of the Medical Institute of the Northeastern Federal University named after M.K. Ammosov.

104 doctors of city polyclinics of various specialties passed the questionnaire.

Results and discussion

According to the results of the survey, it was revealed that out of 104 doctors of different specialties, 88% are women, and 12% are men, the average age reaches from 45-59 years. Doctors would like to see in the application: prevention of tuberculosis in children and adults, immunodiagnosis of tuberculosis in children – 51%, as well as diagnosis of tuberculosis in adults, which was 72%. The doctors wished convenience and speed in finding information, especially in severe and complex clinical cases, in the differential diagnosis of tuberculosis infection, especially extra pulmonary forms. They noted that an information portal is needed for non-phthisiologists with a description of symptoms, methods for diagnosing tuberculosis of the respiratory organs and extra pulmonary localizations, both in adults and children. Based on this, the mobile application «Phthisiatrician» was developed. The certificate of state registration of the computer program No. 2023663244 «Program for informatization of the population and general practitioners on tuberculosis infection «Phthisiatrician» dated 21.06.2023 was received. Currently, the application is being implemented in the practical healthcare of the republic, positive feedback has been received.

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LUNG FUNCTION IN PATIENTS WITH SARCOIDOSIS OF THE RESPIRATORY SYSTEM IN ANNUAL DYNAMICS

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Abstract. Objective. To assess lung function and bronchial response to short-acting β2-agonist in patients with COPD over the course of one year. The mean values of FVC and FEV1 one year later showed no statistically significant differences compared to baseline data, with absolute values of 3.5±0.1 and 3.5±0.1 liters (p>0.05) and 2.9±0.1 and 2.9±0.1 liters (p>0.05), respectively. In the context of a restrictive type of lung ventilation function impairment, patients with COPD exhibit obstructive disorders, which affect 22-30% of patients and are primarily associated with high bronchial lability, predominantly affecting small airways.

Key words: respiratory sarcoidosis, external respiratory function, spirometry.

Impaired respiratory function in respiratory sarcoidosis (RS) is heterogeneous in localization, severity and reversibility of manifestations [1].

Sarcoidosis is traditionally considered a restrictive lung disease [2]. Endobronchial granulomatous inflammation in sarcoidosis can contribute to the development of bronchoobstructive syndrome, which is important in determining the management and treatment approach for such patients [2-4].

Objective

To assess lung function and bronchial response to short-acting β2-agonist in patients with COPD over the course of one year.

Materials and Methods

Lung function was studied using spirometry (FEV1/FVC, FVC, FEV1, FEF25-75, MEF50, MEF75) in COPD patients (n=79) before and one year after inhalation of a short-acting β2-agonist (salbutamol, 400 μg) [5]. Twenty-four (30%) patients received corticosteroid therapy, while 44 (56%) received vitamin E and/or pentoxifylline.

Results and discussion

The mean values of FVC and FEV1 one year later showed no statistically significant differences compared to baseline data, with absolute values of 3.5±0.1 and 3.5±0.1 liters (p>0.05) and 2.9±0.1 and 2.9±0.1 liters (p>0.05), respectively. However, the parameters FEF25-75 and MEF75 significantly decreased from 7.4±0.3 to 7.1±0.3 and from 1.4±0.1 to 1.2±0.1 liters/s, respectively (p<0.05). Individual assessment of spirometry values showed that, during the initial visit, 44% of patients exhibited decreased FVC and bronchial obstruction. After therapy, a positive trend was observed in 15% of cases, while a negative trend in lung function was noted in 9% of cases; in 76% of cases, spirometry parameters remained largely unchanged.

The change in values ΔFEV1, ΔFVC, ΔMEF50, ΔMEF75 after salbutamol inhalation initially amounted to 3.0[0.01;7.1]%, 1.9[0.01; 4.9]%, 7.9 [1.03; 16.3]%, and 16.4[2.0; 29.4]%, respectively. After one year, these values changed to 4.0[1.0;6.1]% (p>0.05), 1.0[-1.2; 3.4]% (p<0.05), 11[4.0; 18.0]% (p>0.05), and 12[3.0; 25.0]% (p>0.05), respectively, which was attributed to the high variability of the parameters. Upon individual assessment of the bronchodilator test, approximately 30% (24) of patients initially showed a significant increase in airway patency after salbutamol inhalation, and after one year, a positive response to salbutamol was observed in 22% of

cases (18 patients) $\chi 2=1.18$; ($p>0.05$).

Conclusion

In the context of a restrictive type of lung ventilation function impairment, patients with COPD exhibit obstructive disorders, which affect 22-30% of patients and are primarily associated with high bronchial lability, predominantly affecting small airways.

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INTRACRANIAL HEMATOMAS IN TRAUMATIC BRAIN INJURY

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Abstract. The paper in hand is dedicated to study of clinical findings, diagnosis, and treatment of intracranial hematomas based on the data collected by the Neurosurgery Clinic of the Amur Regional Clinical Hospital over the past decades. An increase in the occurrence of hematomas in the structure of traumatic brain injury was noted, as well as the most significant factors influencing this occurrence.

Keywords: intracranial hematomas, traumatic brain injury.

Modern neuroimaging methods allow timely diagnosis of the morphological substrate of cerebral contusions. They detect both the destruction of nervous tissue and intracranial hemorrhages. The favorable outcome of a brain injury largely depends on how quickly the bleeding stops and how likely the formation of an intracranial hematoma (ICH) is. The purpose of this study is to determine the frequency of ICH in the structure of traumatic brain injury over the past decades, as well as the most significant factors influencing their occurrence.

Materials and methods

In the Neurosurgery Clinic of the Amur Regional Clinical Hospital, the clinical findings, diagnosis, and treatment of ICH have been studied since 1986. During this period, there has been a steady increase in the number of hematomas in the structure of traumatic brain injury – from 2.8% (7 cases) in 1986 to 19.04% (91 cases) in 2006. From 2007 to the present, the amount of ICH has reached a consistently high level; up to 80-90 hematomas are operated on annually. Furthermore, over the past decade, patients with small hematomas have often been treated using conservative methods, under dynamic helical CT control.

Speaking of localization, according to the 2020 data, subdural hematomas were most common – 71.9% (64 cases), epidural hematomas were much less common – 20% (18) and intracerebral hematomas were detected only in 7.9% cases (7). This ratio does not change significantly by years throughout the entire observation period.

Results and discussion

During the observation period, the number of patients with traumatic brain injury doubled, although this structure is still dominated by mild brain injury: 66% cases account for concussion, 19.3% for mild cerebral contusion. Moderate and

severe contusions are 7.5% and 6.4%, respectively. The number of ICH increased 13 times, mainly due to a rise in subacute and chronic clinical courses; and this circumstance can't be explained only by a surge in the number of traumatic brain injuries. Acute clinical course was observed in only 50.4% of cases, while subacute and chronic hematomas accounted for 49.6%.

From our point of view, a cerebral contusion triggers sanogenetic mechanisms that contribute to bleeding control and prevent the occurrence of hematomas. Among those physiological reactions, the most important are angiospasm of damaged vessels, local cerebral edema, and hypercoagulation. The formation of ICH is facilitated by impaired reactivity of cerebral vessels against the background of alcohol intoxication or chronic cerebral insufficiency, disorders in the hemostasis system, including against the background of constant use of antiplatelet and anticoagulant medications, baseline hydrocephalus, unreasonable prescription of decongestant therapy in the first hours after traumatic brain injury.

Thus, an increase in hematomas in the structure of brain injury is associated not only with a surge in the number of traumatic injuries, but also with impaired sanogenetic reactions in damaged vessels and the brain itself. This makes it possible to attribute most hematomas to complications of brain contusions emerging as secondary damage.

The different initial level of sanogenetic compensatory reactions and their adequate assessment in patients with traumatic brain injury make it possible to predict the likelihood of secondary brain damage by the type of hematoma formation and, accordingly, to carry out pathogenetic neuroprotective therapy and expand the indications for conservative treatment methods with dynamic CT control and in the absence of dislocation symptoms.

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PEDIATRIC-ONSET MULTIPLE SCLEROSIS AND ITS CLINICAL COURSE

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Abstract. Pediatric-onset multiple sclerosis (MS) is a type of MS diagnosed before the age of 16 (or before the age of 18). The paper in hand analyzes cases of the disease with early onset. Compared to a later onset, a predominantly remitting and more benign clinical course of the disease was noted. Pediatric onset also involves cranial nerves and the brain stem more frequently.

Keywords: Multiple sclerosis, pediatric onset.

Multiple sclerosis (MS) is an autoimmune demyelinating disease, with onset at a young age, and a progressive course that steadily leads to disability. The onset of the disease is more often observed at the age of 18-40 years; however, in recent years, there has been a trend of even earlier MS onsets. According to various studies, pediatric-onset MS occurs in 2-10% of cases; in Russia - in about 4-5% of all patients with this disease [1, 2, 3, 5].

Purpose of the study. The author aimed to study the features of the onset and course of MS diagnosed before the age of 18 years.

Material and methods

During the observation period (since the 1970s), MS with the onset of the before the age of 18 was diagnosed in 36 patients (10 boys, 26 girls). The following factors were analyzed: onset features, the duration of the first remission, the timing of the transition to secondary progression, the score according to the expanded disability status scale (EDSS), the rate of progression (the ratio of the disability status to the duration of the disease).

Results and discussion

The incidence of pediatric-onset MS was 5.2%.

Girls got sick more often. At the age of up to 12 years, 5 children were diagnosed with this disease; 10 cases were discovered in the 12-14 years old group, 11 cases - in the 15-16 years group, 10 cases - among the patients aged 17 years old. The earliest age of onset of the disease was 9 years. There is an increase in the occurrence with age. These indicators correspond to the literature data [1, 2, 3].

The majority of children (21 patients – 58.3%) had monosymptomatic onset, which undoubtedly made it difficult to diagnose the disease. According to the literature, such onset is a characteristic feature of pediatric MS detected in 41-89.6% of cases, depending on the patient population [1, 2, 4].

The onset had dominant signs of involvement of the cranial nerves (CCN) and the brain stem in 26 patients (72%); 12 of them had those as the only symptom. Eleven patients (30.6%) had visual disorders, 9 patients (25%) experienced oculomotor disorders, 7 (19.4%) patients suffered from dizziness and coordination disorders. In some cases, those symptoms were combined with other disorders. Another symptom often observed in the MS onset is motor disorders. They were detected in 15 patients (41.6%) and most often (in 9 cases) were very diverse and combined with other symptoms.

With polysymptomatic onset, in most cases, a combination of motor and sensory disorders with symptoms of involvement of the cranial nerves and the brain stem was observed.

Most patients noted precipitating factors before the first symptoms – usually respiratory diseases or hypothermia. Less often named factors were exposure to sunlight, stress, and mild traumatic brain injury. Their past medical history typically included frequent colds and childhood infections.

The course of the disease in children was remittent, which also corresponds to the literature data. No relationship between the age at which the disease occurred and its further clinical course was discovered.

The catamnesis and the natural course of MS was traced in 13 patients - from 5 to 36 years (on average, for 18.6±9.0 years). In women, the disease progression was more favorable: the first remission was longer – up to 3.2±2.5 years (in men – up to 2±1.8), the rate of progression was lower – up to 0.4±0.26 (in men – up to 0.5±0.4), the secondary progression occurred later.

The analysis of the features of the onset and further clinical course revealed that the disease was more benign if it started with visual disorders: the first remission was 2.9±2.5 years, the secondary progression occurred after 9.6±1.1 years, the rate of progression was 0.3±0.1. The onset with motor and oculomotor symptoms corresponded to a greater rate of progression (0.4±0.2 and 0.6±0.4, respectively) and an earlier transition to secondary progression (8.7±2.6 and 8.6± 4.1 years).

Conclusion

Thus, pediatric-onset MS is a predominantly monosymptomatic onset with involvement of the cranial nerves and the brain stem, which makes it difficult to diagnose the disease at an early stage. In our observations of such onset, in a number of cases, the diagnosis was established only with repeated exacerbations or the occurrence of other symptoms of damage to the nervous system. Clarification of the diagnosis is facilitated by a thorough past medical history collection, an examination of the patient aimed at exclusion of diseases with similar symptoms (other autoimmune diseases of the nervous system, systemic diseases, hereditary pathologies, etc.), as well as by neuroimaging methods, such as MRI. Furthermore, early-onset MS is characterized by a remitting, relatively benign course, which is also noted in other studies. Even with a long course of the disease, most patients remained physically active, could not only minister to themselves, but also perform feasible household chores.

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HAMMAN SYNDROME AND COVID-19

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Abstract. The content of this work describes the features of the manifestation of air syndrome (Hammann syndrome) in patients with pneumonia caused by the SARS-Cov2 virus. Purpose - to describe the portrait of the risk group for the development of Hamman syndrome. The analysis of information sources in electronic search systems has been carried out. A description of the risk group has been formed, and appropriate conclusions have been drawn.

Keywords: COVID-19, air syndrome, air leak syndrome, Hammann syndrome

The complex of nosological concepts discussed in this article - air leakage syndrome, spontaneous pneumomediastinum, mediastinal emphysema and a number of other names have a collective name: air syndrome (AS). Known in English literature as air leak syndrome (ALS) [3]. Various types of air considered in this article have a different frequency of occurrence, so spontaneous pneumothorax is a fairly well-known condition in the medical environment, then other types of ALS have gained new importance in connection with the COVID-19 pandemic, these include spontaneous pneumomediastinum, pneumopericardium with soft tissue emphysema.

Objective

The global situation around the spread of the SARS-Cov2 virus has led to a significant increase in the number of patients suffering from viral pneumonia. The incidence of complications, such as ALS in practice, has accordingly also increased among patients infected with COVID-19 compared to the general population, which makes the study relevant.

Materials and methods

The study includes an analysis of literature data obtained from the study of several sources, a total of 61 clinical cases. Medical records of patients with verified polysegmental pneumonia caused by coronavirus infection were used. Each of the patients was in the age group over 18 years old, had pneumonia, complicated during the course of the disease by air syndrome in various variants. Cases recorded from 2020 to 2022 were selected. When conducting a comparative analysis, gender, age, degree and area of the lesion according to CT data, and the outcome of the disease were assessed. We used data from international sources, also received from Russian medical institutions.

Patients were admitted to inpatient treatment with a preliminary diagnosis of SARS-CoV2 infection and received a mandatory examination. Verification of the diagnosis was carried out using a smear and PCR test, as well as a blood test by ELISA for the presence of antibodies.

Results and discussion

Among the patients who developed ALS, there were 30 men and 24 women. The age of patients ranged from 19 to 89 years, with a median of 63.6 years. The mean age was 63.2±14.18 years. In gender groups: in the group of women, the age ranged from 19 to 89 years, the median was 66.5 years, the average age was 65.9±10.88 years, the median was 66.5. In the group of men - from 33 to 88 years, median - 60.5 years, the average age was 61.9±10.00 years [4].

The terms of hospitalization among the studied cases are the shortest - 2 days. Patients who spent a short time in the department were transferred to other departments / medical institutions. The longest hospital stay is 47 days. When studying cases of ALS, the criteria for lung damage were also taken into account: the volume of damage to the lung parenchyma, established by CT.

Thus, the subgroup of women is characterized by a greater severity of COVID-19 disease compared to the subgroup of men. It was noticed that the most severe pneumonia occurred in the body of women. In addition, women are less homogeneous than the male subgroup in terms of the complications of COVID-19 disease.

The time of occurrence of ALS relative to the duration of the course of the entire disease allows us to assume the risk of its development quite reasonably. In this regard, this criterion is of particular importance in the prognostic plan. It was established that ALS in the general group of patients occurred at different stages of the development of pneumonia, both in the first from the onset of the pathology, and after a certain number of days. In the female subgroup - early on day 12 and late on day 72. Also, patients were grouped according to the amount of time from the onset of the disease to the development of ALS in weeks. In this context, there is an increase in the incidence of ALS to a maximum in the period from 2 to 4 weeks from the onset of pneumonia.

As a result, based on the data obtained, persons from the age group of 55-65 years old, with overweight, with a cardiac history can be attributed to the risk group for developing air syndrome against

the background of SARS-Cov2 viral pneumonia. From the point of view of the development of the underlying disease, the risk group includes people with severe pneumonia, CT 2-3 lesions of the lung parenchyma, a complication that occurred starting from the 2nd week from the onset of the disease. Hamman's syndrome is a characteristic complication of COVID-19 pneumonia. Doctors supervising patients with a new coronavirus infection should be especially careful if their patient is in the risk group described.

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ANALYSIS OF COGNITIVE DYSFUNCTION IN PATIENTS WITH ARTERIAL HYPERTENSION

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Abstract. In patients with arterial hypertension, indicators of cognitive dysfunction were studied using the Global Deterioration Scale and functional status using the Lawton Scale. The results of the observation showed that in most cases (73.4%) moderate cognitive dysfunction is recorded, 3.3% of cases - very mild memory disorders, 13.3% - mild disorders, 10.0% - moderately severe memory disorders. An assessment of the dependence of functional status on cognitive dysfunction showed a strong correlation between daily household activity and cognitive impairment in patients with arterial hypertension.

Key words: cognitive dysfunction, functional status, arterial hypertension, patients.

To date, numerous studies have shown that arterial hypertension is a predictor of the development of cognitive dysfunction [2, 3, 5, 7]. Cognitive disorders in arterial hypertension are most often associated with two types of vascular changes in the brain: lacunar infarcts and diffuse white matter changes [3, 6]. Given the high risk of developing cognitive impairment in patients with arterial hypertension, when working with patients, the doctor needs to focus on cognitive complaints, information from relatives about the patient's problems in everyday life, etc. [2]. There is no doubt that in the presence of cognitive disorders in patients with arterial hypertension, the functional status and quality of life are reduced [1, 4]. Therefore, a full-fledged history taking followed (if necessary) by a neuropsychological study will help the doctor identify the most appropriate treatment tactics for a particular patient.

Objective

Analysis of cognitive dysfunction and its relationship with functional status in patients with arterial hypertension.

Materials and methods

The study was conducted on the basis of the scientific and clinical center No. 2 of the Central Clinical Hospital of the Russian Academy of Sciences in 2021-2022. The study included 30 patients aged 54 to 75 years with a diagnosis of stage III hypertension, grade 3 arterial hypertension, risk 4. Cognitive dysfunction parameters were assessed using the Global Deterioration Scale (GDS): subjective complaints and objective signs of memory impairment. The relationship between cognitive dysfunction and the functional status of patients was determined after assessing everyday household activity using the Lawton scale (IADL), according to which 0 points indicates dependence

on outside help, a significant need for outside help in everyday life, 8 points indicates the patient's independence from outside help. Statistical analysis of the obtained results was carried out using the program «Statistica v.10.0».

Results and discussion

When assessing cognitive dysfunction on the GDS scale, 22 patients with arterial hypertension (73.4%) had moderate cognitive dysfunction (the final indicator was 4 points), 1 patient (3.3%) had very mild memory disorders (the final indicator was 2 points), 4 patients (13.3%) had mild disorders, 3 patients (10.0%) had moderately severe memory impairments. Analyzing the violations of the functional status of patients with arterial hypertension using the Lawton scale, it was stated that there were mainly problems in the implementation of financial transactions and the use of transport. Interpretation of the results of the study on the Lawton scale showed a moderate dependence of patients with arterial hypertension on outside help (mean IADL value was 4.8 ± 0.7 points). An assessment of the dependence of functional status on cognitive dysfunction in patients with arterial hypertension made it possible to establish the presence of a strong correlation between the parameters: with the progression of cognitive dysfunction, the functional status of patients decreases, and dependence on outside help increases.

Thus, the presence of cognitive dysfunction in patients with arterial hypertension, which affects daily household activities, suggests the implementation of therapeutic measures aimed primarily at correcting the cognitive status.

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THE USE OF NATURAL ADAPTOGENS FOR THE SURGE OF ORGANISM TO HEAT STRESS RESISTANCE

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Annotation. The purpose of the research was experimental scrutiny of natural adaptogenic products on guinea pigs for adaptation of compensatory reactions of organism to the conditions of high temperatures. Experimentally confirmed, that daily additions into the rats' food scrutinized adaptogenic elements in the dosages of 150-300 mg/kilo have remarkable antioxidant influence in conditions of high temperatures influence onto the warm-blooded organism, that allows the their usage as regulator of physiological reactions of organism under heat stress.

Key Words: high temperatures, resistance of organism adaptogenic products.

We offered biologically active products from natural adaptogenic raw material for regulation of adaptation reactions of organism in conditions of high temperatures (Pants, digidrokverzitin, rodiolla rosae, hypericium perforatum). It's well known that the following elements contain predominant quantity of amino acids, micro and macro elements and are widely used in medical and veterinary practice. Experimentally proved that the scrutinized adaptogenic products don't represent toxicological

and hygienic danger for human health and are acceptable as food products.

The scrutiny of antioxidant activity in conditions of high temperatures we used climatic chamber of the firm "Binder GmBH" (Germany) under temperature of +40 C. The control of functional condition of the degree of adaptation reactions was conducted on the indexes of integral reography of R.M. Bayevsky, received via automotized system "Cardioscreen". The scrutiny of antioxidant activity of the following products in the first row was conducted in experiments on the model of ferrum-ascorbate dependent oxidation of lipids in suspension of yolk lipoproteins.

It was also confirmed that the scrutinized elements have remarkable antioxidant activity (up to 80%). A row of experiments, those with injections of carbon tetrachloride according to commonly used methods, were conducted in order to confirm of the effectiveness of antioxidant influence of the scrutinized adaptogenic products on the warm-blooded organism. The results of the research have confirmed high antioxidant activity of adaptogenic products. The following elements produce remarkable act-protective action on the background ow lowering of resistance of statistical and dynamic burden caused by the prolonged influence of high temperatures onto organism. The estimate of antioxidant action of products of scrutinized adaptogens was resolved on the analysis of altering of the content of products of lipids' oxidation (POL) in organisms of animals who were undergone to prolonged influence of high temperatures. Under the feeding of the scrutinized adaptogens to rats in the dosages of 150-300 mg/kilo during the period of prolonged heat stress, the easement of adaptation to heat was recorded, also remarkable antioxidant features of the adaptogens on account of lowering outcome of the quantity of POL products in blood, in hearts and livers of rats was registered. The interest is that the scrutinized biological active products made of adaptogens in the dosages of 150-300 mg/kilo easened adaptation of lab animals to heat in conditions of severe heat trauma. Prophylactic treatment of the products of pants to heat stress was conducted on 60 volunteers engaged in the experiment in the period of high temperatures advance in July with constant temperature +30C. Powdery elements were used daily, each day 15 grams in the morning on an empty stomach 30 minutes before breakfast during 30 days. Positive dynamics of adaptation after consummation of adaptogens was outlined in more than 50% of cases, in 20 % of cases the dynamics came from negative to satisfactory, in 30% adaptation from the stadium of tension came into satisfactory. Biochemical scrutiny of blood has shown that adaptogens have normalized the content of POL and catalase activity of blood in human organism in the hottest season of the year. That effective correction of adaptogenic products of heat stress is possible.

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SOME ASPECTS OF THE USAGE OF PHYTOADAPTOGENIC PRODUCTS FOR PROPHYLACTICS OF DISEASES IN CONDITIONS OF FAR EASTERN COLD WINTERS

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Abstract. The aim of the research was experimental scrutiny on guinea pigs for possibilities of safe usage of phytoadaptogenic products for adaptation of compensatory reactions of organism for the conditions of low temperatures. Experimentally figured out, that in dosages 150-300 mg/kilo daily, the scrutinized mixture has expressed antioxidant effect in conditions of influence of low temperatures on warm-blooded organism that allows the usage of the mixture as regulator of adaptation reactions of organism during cold stress.

Key words: cold influence, resistance of organism, phytoadaptogenic products.

One of the most important problem of scrutiny of climate-ecological influences on human and animal organism is the stress influence of cold. Nowadays, the most remarkable national priorities, forming the basis of innovation development of the state are vigorous social and economic development of Arctic territories as well as construction and use of the first Russian civil spaceport "Thea Eastern" in conditions of cold winter of Amur region.

The following tactic and strategic directions are implemented in conditions of cold climate of the environment that stipulates the relevance of the problem of adaption of population of Russia towards temperature stress. In connection with this, solid interest has the scrutiny of mechanisms of adaptation reactions of warm-blooded organism towards low temperatures, because of the row of reasons the exhaustion of the reserves of organs and human systems before the moment of adaption is possible.

The development of the state of disadaptation under cold stress can be warned in advance best of all via the system of hygienic measures, in the first row via correction of nutrition ratio of population with the use of different adaptogenic products from the elements of animal and vegetable origin.

Among the prospective components for the production of elements' mixture used in nutrition of warm-blooded organism during influence of low temperatures toward the environment, crucial role can be attached to hypercium perforatum (HP) and rhodiola rosea. (RR)

The aim of the present research was the scrutiny of the possibility of the use of mixture from HP and RR for correction of compensatory reactions of organism in conditions of low temperatures and treatment of ear throat and nose.

Materials and methods

The research was completed in standard conditions of vivarium of Amur Medical Academy.

Protocol of the experimental part of the research on levels of hosting animals modelling of pathological processes and deduction of animals from the experiment was coherent to the principles of biological ethics, narrated in the European convention of spine animals' protection, used for experiments or for other scientific purposes (Strasburg 1986). Order MZ RF №267 from 19.06.2003 "About approval of rules of lab practice".

Experiments on scrutiny of cold adaption reactions of lab animals that undergo injections of HP and RR with the use of the model of prolonged cold influence carried out on 50 outbred white male rats that weigh180-200 grams ten rats per group.

The scrutiny of cold adaptation reactions was completed on the model of prolonged cold influence during 28 days via injections in rats' organism of the mixture of HP and RR. Animals were divided into 5 groups: 1st group – intact rats – they were kept in standard conditions of vivarium; 2nd group – controlling one where rats were undergone by cold influence, groups 3 – 5 lab rats before placement into the climativ chamber were injected the mixture of HP and RR with fewer quantity of food in dosage 30mg/kilo and 300 mg/kilo coherently. The scrutiny of biochemical data was conducted on th 7th 14th 21st and 28th day of the influence of cold.

After the end of the experiment animals were decapitated under ether anesthesia. The scrutiny was approved by the Ethics Committee of Amur State Medical Academy. Statistical analysis of the received data was conducted with the use of t-criterion of Student.

Results and discussion

The action of cold influences of the rise of the products of products of lipid peroxidation (LP) in rats' blood.

The results of experimental research have shown that under prolonged action of cold on warm-blooded organism the rise of all peroxide reactions products content was outlined on th 7th, 14th, 21st and 28th day. It was confirmed that injections of mixture from HP and RR in the dosages of 150 and 300 mg/kilo have authentically lowered the content of LP products in all terms of the research. During injections of phytoadaptogenic mixture in

the dosage of 30 mg/kilo, there were no noticeable alterations in the content of LP.

The most of content of hyperoxides of lipids (HL) under cold influence was diminished on the 14th day under the injection of mixture of HP and RR in the dosage of 300 mg/kilo and reached 19,93±0,92 nMole/ml; diene conjugates (DC) – on the 28th day under injection of mixture in the dosage 150 and 300 mg/kilo into the rats' food; malonic dealdehyde (MDH) – in all days of research, especially on the 21st day of the experiment.

Table. The content of HL, DC, MDH in rats' blood under prolonged cold stress during the use of mixture of HP and RR (10 rats in each group)

	The index nMole/ litre	Duration of the experiment, Day, Intact Group	Controlling Group	Lab Group, warmth +30 mg/kilo of mixture	Lab Group: warmth + 150 mg/kilo of mixture	Lab Group: warmth + 300 mg/kilo of mixture
HL	7th	17,63±0,46	31,13±0,81*	30,26±0,63	27,82±0,91**	23,83±1,5**
	14th	18,09±0,39	39,15±1,0*	28,5±1,3	28,85±2,5**	19,93±0,92**
	21th	17,03±0,51	30,25±0,9*	30,10±1,02	26,12±2,2**	22,97±0,41**
	28th	17,9±0,56	28,6±2,6*	28,4±2,3	25,3±3,2**	20,71±0,67**
DC	7th	91,77±1,6	112,77±2,3	113,12±5,3	106,71±6,5**	89,16±2,39**
	14th	90,52±1,0	124,63±1,6*	120,46±2,5	116,52±3,5**	99,42±2.6**
	21th	86,6±0,5	119,56±1,4*	119,45±2,6	109,22±1,7**	95,42±2,1**
	28th	89,11±1,2	120,9±3,3*	119,16±5,3	106,41±2,1**	94,1±3,8**
MDH	7th	0,7±0,9	2,72±0,18*	2,43±0,05	1,8±0,1**	1,0±0,07**
	14th	0,97±0,15	3,15±0,31*	3,08±0,13	2,47±0,3**	1,49±0,08**
	21th	1,13±0,1	4,57±0,12*	3,8±0,52	3,3±0,3**	1,47±0,01**
	28th	1,17±0,2	3,25±0,31*	3,25±0,52	2,61±0,35**	1,13±0,33**

That is, by feeding of experimental animals by the mixture of HP and RR, the period of prolonged cold stress has outlined the lowering of formation of LP products in rats' blood that stipulates the rise of the level of adaptation reactions.

Conclusion. Overall, we have discovered first and experimentally that the effectiveness and safety of the use of the mixture of phytoadaptogenic products of HP and RR with the use of correction of oxidation stress in conditions of cold burden on warm-blooded organism was confirmed and stipulated. Conducted research let recommending the scrutinized mixture as regulator of adaptation reactions of organism and prophylactics of different diseases that come from the influence of low temperatures of the environment.

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EVALUATION OF PARAMETERS OF PSYCHOEMOTIONAL STATE IN PATIENTS WITH ROSACEA

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Abstract. Changes in the psycho-emotional state in patients with rosacea require timely diagnosis and pharmacological correction. In the conducted observation, it was found that in patients with rosacea 6 times more often than in healthy peers, irritability, self-doubt, isolation are recorded, 4 times - depression and difficulties in communicating with friends, 3 times - fear of poor health and lack of interest. to the lives of those around you. The well-being of patients with dermatosis is 44% lower than that of practically healthy women, activity - by 34%, mood - by 27%.

Key words: rosacea, psychoemotional state, patients.

There are about 45 million patients with rosacea in the world: the prevalence of dermatosis reaches 5% of all dermatological diagnoses [1, 4, 9]. The first signs of the disease are recorded at the age of 25-35 years and reach clinical severity by the age of 40-50 years - the age period with maximum social and physical activity [2, 7]. About 80% of patients with rosacea belong to the category of patients with changes in the psycho-emotional status - they are in a state of chronic stress and social maladjustment, since the presence of a cosmetic defect on the skin of the face supports the psycho-traumatic dominant, making interpersonal relationships as difficult as possible, contributing to a decrease in the quality of life [3, 5]. Instability of the emotional background, disruption of the physiological structure of sleep and, as a result, performance, problems of communication in the family and the team, associated both with the disease itself and its pathological influence, and with depression, focus the doctor on an individual and reasonable approach to the selection of a therapy regimen [8]. Timely diagnosis of changes in the psycho-emotional state of patients with rosacea and the appointment of both topical drugs and drugs that improve the psycho-emotional state of patients will reduce the treatment time and achieve a longer remission.

Objective

Evaluation of psycho-emotional state parameters in patients with rosacea.

Materials and methods

The study of psycho-emotional status parameters in patients with rosacea (n=25) at the age of 39.6 (26; 54) years was carried out in comparison with practically healthy women in the same age range (n=21). When examining patients with rosacea in 14 women (56%), a predominantly erythematous-telangiectatic form of the disease was recorded, in 11 (44%) - papulo-pustular; in 16 patients (64%) the course of the disease corresponded to a mild degree, in 9 (36%) - to a moderate degree. The psycho-emotional status of the patients was assessed using questionnaire tests: the assessment of the quality of life of patients with rosacea and women of the comparison group was carried out by the method of questioning S.I. Dovzhansky; to assess the current psychological state of the patients, the questionnaire "Health, Activity, Mood" was used [6]. The results were processed using the Statistica v.10.0 program (Statsoft Inc., USA).

Results and discussion

One of the most important diagnostic aspects when a patient visits a dermatologist is the assessment of his psycho-emotional state. Analyzing the test results, it was found that in patients with rosacea, irritability is recorded 5.5 times more often than in healthy peers, 5.7 times - self-doubt, 6.3 times - isolation, 3.5 times - depression, 3 times - fear of poor health, 4.3 times - difficulties in communicating with friends, 2.6 times - lack of interest in the lives of others. The negative impact of all of the above parameters adversely affects the structure of sleep - patients with rosacea are 3.3 times more likely than their healthy peers to suffer from insomnia. Analyzing the results of the survey with self-assessment by respondents of well-being, activity, mood, it was noted that the well-being of patients with dermatosis is 44% lower than that of practically healthy women, activity - by 34%, mood - by 27%, which indicates an imbalance in the current psychological state and negative changes in psycho-emotional status in patients with rosacea.

Thus, the results of the observation indicate negative changes in the psycho-emotional state of patients with rosacea, which requires timely and adequate pharmacological correction.

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STATISTICAL ANALYSIS OF TREATMENT OF PATIENTS WITH OBSOLUTION IN THE AMUR REGION

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Actract. A statistical analysis of the treatment of patients with frostbite of varying degrees of damage hospitalized in the burn department of the State Autonomous Healthcare Institution JSC AOKB in Blagoveshchensk in the period 2015-2019 was carried out. During this period of time, 63 patients were treated. As a result of the analysis, it was revealed that complex treatment of a patient with frostbite of varying degrees depends on the duration of the cold injury and the period of the patient's seeking medical help.

Key words: cold injury, frostbite, statistical analysis, necrectomy, amputation.

Cold injury is an urgent problem in the regions of the North and sharply continental climate, occupying 1-10% of the injury rate in peacetime [1].

Frostbite is a serious pathology, often resulting in limb amputation and disability of the patient [2].

Mortality in extensive frostbite grades III-IV. makes up 1.5-3% of the number of victims, including 0.3-1.6% of patients die from sepsis [3]. Every year in the Amur region, frostbite accounts for 9-15% of the total number of thermal injuries.

The purpose of the study was to conduct a statistical analysis of the treatment of patients with frostbite of varying degrees of damage, hospitalized in the burn department of Blagoveshchensk for the period from 2015-2019.

Materials and methods

A retrospective analysis of the results of treatment of 63 victims with frostbite of varying degrees, hospitalized in the burn department of the State Autonomous Healthcare Institution JSC AOKB in Blagoveshchensk in the period 2015-2019, was carried out.

Of the total number of patients, there were 54 men (85.7%) and 9 women (14.3%). By place of residence, urban residents accounted for 75%, non-residents 20%, and 5% from areas equated to the Far North. The age category of patients is from 18 to 85 years. Localization of frostbite: upper extremities - in 10 patients (15.9%), lower extremities - in 48 (76.2), torso - in 1 (1.6%), several localizations - in 4 (6.3%) patients. Degree of damage II degree. – in 4 (6.3%) people, grade III. - in 5 (7.9%), grade III-IV - in 36 (57.1%), stage IV - in 18 (28.3%) patients, respectively. The duration of admission to the hospital from the moment of cold injury is from 3 hours to 2 months. Duration of the wound process: from 14 days to 3 months.

Upon admission and over time, all patients with cold injury underwent general clinical examinations, as well as consultation with a therapist. Statistical processing of the obtained data was carried out using Statistica 10 software ($p<0.05$).

Results and discussions

The majority of those admitted were people of working age, mostly men (85.7%), the average age was 47.1±13.9 years.

Every year, one of the main reasons leading to frostbite is the state of alcoholic intoxication: 56 (88.9%) patients received cold injury while in varying degrees of intoxication. This explains the late timing of seeking help after 41±34.7 hours or with dry necrosis after 27.14±25.9 days. A larger percentage of frostbite (76.2%) was observed on the feet at different levels of the lesion, less often on the hands (15.9%).

Every year there is an increase in patients without a fixed place of residence with frostbite (31.7%), whose average age is 46.6±10.9 years. More often, patients (39.7%) were admitted in the late reactive period, which complicated the course of the wound process and pathogenetic treatment.

Patients admitted during the pre-reactive period of cold injury (19%) received pathogenetic therapy (heat-insulating bandages, novocaine blockades for damage to the upper and lower extremities, administration of direct anticoagulants (heparin), antiplatelet agents, antispasmodics, vasodilator therapy.

In the early reactive periode (35%) additionally used magnetic therapy for 8-10 sessions, HBOT sessions for 8-10 sessions. Locally for frostbite of the III-IV stage, wet-dry dressings (1% solution of iodopyrone) were used, for grade II - wound coverings (Bactigras , Voskopran).

In 4 (6.3%) patients, superficial frostbite healed by independent epithelization. 5 (7.9%) patients underwent free autodermoplasty. After the formation of foci of necrosis and demarcation zones, 50 (79.3%) patients underwent necrectomy. The level of necrectomy in 66% (33 patients) was within the phalanx or head of the metatarsal (metacarpal) bone.4 patients (6.3%) underwent amputations of feet with grade IV frostbite at the level of the middle third of the leg.

The average number of bed days was 32.2±16.9 days. There were no deaths in victims with frostbite.

As a result of the analysis, it was revealed that complex treatment of the patient depends on the type of period of the wound process during frostbite.

As a result of the analysis, it was revealed that complex treatment of the patient depends on the type of period of the wound process during frostbite. Late presentation of a patient with frostbite is associated with varying degrees of alcohol intoxication, which aggravates the course of the wound process in this pathology. Therefore, 54 (85.7%) patients underwent surgical treatment including necrectomy and amputation of the lower extremities.

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EVALUATION OF THE EFFECTIVENESS OF CHEMOTHERAPY USING BEVACIZUMAB IN OVARIAN CANCER

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Abstract. In patients with stage III ovarian cancer who received the targeted drug bevacizumab in combination with platinum drugs, the objective effect of antitumor drug therapy was evaluated according to RECIST 1.1 criteria, progression-free survival was calculated using the Kaplan-Meier method. The assessment showed a partial response to therapy in 50% of patients, progression - in 30%, stabilization of the process - in 20%. Analysis of progression-free survival allowed us to state a time interval of 16.8 months, which is 2.2 months more than in the control group of patients who did not receive bevacizumab. Based on the results of the observation, the toxicity profile of the use of bevacizumab is acceptable.

Key words: ovarian cancer, bevacizumab, progression-free survival, female patients.

It has been proven that rapid tumor growth in the female reproductive system is based on the high intensity of neoangiogenesis due to the predominant expression of vascular endothelial growth factor (VEGF) in the tumor tissue [1, 3]. In this regard, in ovarian cancer, it is reasonable to use drugs that block VEGF [2, 4, 7], in particular, bevazizumab [5]. According to the practical

recommendations of the Russian Ministry of Health and the Russian Society of Clinical Oncology [6], for patients with recurrent ovarian cancer, it is recommended to add bevacizumab from 1–2 cycles of chemotherapy, followed by continued administration of the targeted drug after the end of chemotherapy until disease progression or unacceptable toxicity in order to maintain the patient's clinical status, achieved by previous treatment (maintenance therapy) [8].

Objective

Evaluation of the effectiveness of chemotherapy in combination with bevacizumab in ovarian cancer (on the example of the Amur Regional Oncology Center).

Materials and methods

On the basis of the Amur Regional Oncological Dispensary (Blagoveshchensk), 24 patients aged 46 to 67 years with stage III ovarian cancer were under observation. The patients were randomized into two groups: in the main group (n=10), patients received chemotherapy according to the scheme paclitaxel 175 mg/m2 intravenously + carboplatin AUC 5-6 intravenously + bevacizumab 7.5 mg/kg intravenously on the 1st day every 3 weeks followed by maintenance therapy with bevacizumab 7.5 mg/kg alone until disease progression or unacceptable toxicity; in the control group (n=14), patients received platinum-containing standard therapy without a targeted drug. The assessment of the objective effect of antitumor drug therapy was carried out according to the RECIST 1.1 criteria. Progression-free survival during chemotherapy was calculated from the first day of the first cycle of therapy until progression was registered by the appearance of clinical signs of disease progression, the growth of tumor markers and magnetic resonance imaging data, the indicator was calculated using the Kaplan-Meier method. Statistical analysis of the obtained results was carried out using the program «Statistica v.10.0».

Results and discussion

Evaluation of the objective effect of antitumor pharmacotherapy for ovarian cancer showed that in the main group of patients, a partial response to chemotherapy in combination with bevacizumab was registered in 5 patients (50%), progression - in 3 (30%), stabilization of the process - in 2 (20%); in the control group, similar evaluation criteria were recorded in 5 (35.7%), 7 (50.0%) and 2 (14.3%) patients, respectively. Comparative analysis of progression-free survival by groups showed that in patients who received bevacizumab in addition to chemotherapy, the time interval without progression was longer than in the control group: 16.8 months and 14.6 months, respectively. According to the results of the observation, an acceptable toxicity profile of the use of bevacizumab was stated.

Thus, the addition of chemotherapy with the targeted drug bevacizumab makes it possible to register a trend towards an increase in the effectiveness of anticancer therapy in comparison with the control, which requires further studies with an increase in the cohort of patients.

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ASSESSMENT OF QUALITY OF LIFE PARAMETERS IN THE PROCESS OF ADJUVANT PLATINUM-CONTAINING CHEMOTHERAPY FOR OVARIAN CANCER

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Abstract. Thirty patients with stage III ovarian cancer were under observation, in whom quality of life parameters were assessed during adjuvant chemotherapy using platinum preparations (before chemotherapy, after 1 and 3 months of chemotherapy) using the non-specific questionnaire SF-36 «Health Status Survey». The results of the study indicated the negative impact of platinum preparations on the quality of life of patients with ovarian cancer after surgical treatment. The most pronounced changes were recorded by a decrease in the parameters «Vital activity» and «Social functioning» after 1 month from the first day of the first course of chemotherapy. Assessment of the physical component of health indicated a decrease in the parameter after 1 month by 16%, after 3 months - by 20% ($p<0.05$), the psychological component of health decreased by 23% and 28%, respectively ($p<0.05$). This involves the appointment of drugs that level the negative effects of chemotherapy after the surgical stage of treatment of ovarian cancer.

Key words: ovarian cancer, adjuvant chemotherapy, platinum drugs, quality of life, patients.

In the main group of patients, a partial response to chemotherapy in combination with bevacizumab was registered in 5 patients (50%), progression - in 3 (30%), stabilization of the process - in 2 (20%); in the control group, similar evaluation criteria were recorded in 5 (35.7%), 7 (50.0%) and 2 (14.3%) patients, respectively. Comparative analysis of progression-free survival by groups showed that in patients who received bevacizumab in addition to chemotherapy, the time interval without progression was longer than in the control group: 16.8 months and 14.6 months, respectively. According to the results of the observation, an acceptable toxicity profile of the use of bevacizumab was stated.

Thus, the addition of chemotherapy with the targeted drug bevacizumab makes it possible to register a trend towards an increase in the effectiveness of anticancer therapy in comparison with the control, which requires further studies with an increase in the cohort of patients.

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COMPARISON OF THE VALUE OF ENDOGENOUS INTOXICATION WITH THE DEGREE OF SEVERITY OF COMMUNITY-ACCORPORATE PNEUMONIA

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Abstract. The issues of diagnosis and treatment of community-acquired viral pneumonia are still relevant in all countries of the world. Immune responses in viral pneumonias have been studied quite well, but despite this, research in this area continues all over the world, due to the need to improve diagnostic and therapeutic approaches. In addition to immunohistochemical studies, data related to endogenous intoxication studies in viral pneumonia appear in scientific publications.

Key words: viral pneumonia, COVID-19, endogenous intoxication.

Purpose of the study. To study hematological indicators of intoxication (HII) in viral pneumonia (VP) and evaluate their impact on the severity of the patient's condition, routing and their comparison with immunogram indicators.

Materials and methods

In this study, a retrospective analysis of 146 case histories of patients diagnosed with community-acquired pneumonia associated with COVID-19 was performed. As a result of the analysis, it was revealed that 75 patients were sent to the intensive care unit on the first day from the moment of admission to the hospital. According to studies, the following stages are distinguished in the pathogenesis of pneumonia associated with COVID-19: impaired mucociliary clearance and oxygen diffusion through the alveolocapillary membrane, as well as impaired surfactant synthesis [1]. In the morphological component of the respiratory system, changes in the microcirculation of the pulmonary bed are observed, such as vascular plethora, interstitial and alveolar edema [1].

COVID-19 induces tissue deoxia and triggers a cascade of immune responses now referred to as the cytokine storm [1,3]. At the stage of the systemic inflammatory response syndrome, there is an increase in acute phase proteins (C-reactive protein, ferritin), a violation in the blood coagulation system - an increase in D-dimer, as well as signs of cellular cytolysis - an increase in hepatic transaminases. There is a discrepancy in the immune status of patients: a deficiency of anti-inflammatory factors and a high level of pro-inflammatory factors (interleukin-6, interleukin-7, interleukin-8, interleukin-17, tumor necrosis factor) [4]. Activation of the immune response leads to the formation of endogenous syndromic intoxication, which is designated as a pathological condition that develops in many critical systemic disorders, including in our previous studies [2, 5].

Result and discussion

The main HII are: Kalf-Kalif leukocyte intoxication index (LII), leukocyte index (LI), leukocyte index modified by V.K. Ostrovsky (LIIM), index of the ratio of neutrophils to monocytes (IRNM), index of the ratio of lymphocytes to monocytes (IRLM), index of the ratio of neutrophils to lymphocytes (IRNL) and others [4]. These indicators are calculated on the basis of a clinical analysis of blood and leukocyte formula. Due to this, the possibility of using GPI in the analysis of the severity of the patient's condition has advantages.

There is an imbalance in the immune system, which is a significant factor in an unfavorable prognosis during the course of the disease. Patients admitted to the intensive care unit had higher HII values when assessing these parameters in the emergency department.

Conclusions

Respiratory viruses trigger a cascade of immunological reactions and lead to the formation of a systemic inflammatory response syndrome, pulmonary dysfunction, and impaired cellular respiration. The results of the study indicate the possible use of a clinical blood test and the calculation of hematological indicators of intoxication as an additional component in assessing the severity of patients, as well as an additional evaluation component to address the issue of patient routing.

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BIOMARKERS OF ENDOTHELIAL DYSFUNCTION IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE RECONVALENSENTS FOR COVID-19

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Abstract. To date, there is little data on the effect of COVID-19 on the course of chronic obstructive pulmonary disease (COPD), which is one of the leading causes of mortality worldwide. Aim of study: to evaluate the levels of the most important biomarkers of endothelial dysfunction in patients with COPD and a history of Covid-19. Materials and methods. We studied 148 patients with stable COPD divided into 2 groups according to COVID-19 history or not: Group 1 (n=98) - COVID-19 convalescents; Group 2 (n=50) - patients with stable COPD and no history of viral infection. The concentration of endothelin-1 (ET-1, fmol/L), total homocysteine (Hcy, μmol/L), and villebrand factor antigen (vWF, fmol/L) was determined in all patients. Results and Discussion. It was found that group 1 21.7% higher Hcy concentration ($p<0.01$), was up 14.0% higher ET-1 level (at $p<0.05$), was up 12.9% vWF content ($p<0.05$) than group 2. Thus, in COVID-19 patients with COPD, in the subacute period of COVID-19 there is a more pronounced ED than in patients with isolated COPD of stable course due to increased concentration of such biomarkers as Hcy, ET-1, vWF.

Keywords: endothelial dysfunction, COPD, COVID-19

One of the main pathogenesis mechanisms of cardiovascular events in patients with chronic obstructive pulmonary disease (COPD) is the development of endothelial dysfunction (ED). Against the background of active systemic inflammation, hypoxemia, hypertension there is an imbalance between substances-vasoconstrictors and vasodilators synthesized by vascular endothelium [1]. At the same time, the severity of ED significantly worsens during COPD exacerbation [2] and does not depend on smoking status and traditional cardiovascular factors [3]. According to the literature, the endothelial cells of large arteries and veinsan is important target of SARS-CoV-2 expression causing the COVID-19 (COronaVIrus Disease 2019). This leads to signs of widespread endotheliitis in the heart, lungs, kidneys, liver [4]. To date, there are virtually no data on the effect of COVID-19 on the vascular endothelium in COPD patients.

Aim of the study

To evaluate the content of the important biomarkers of the ED in COPD patients with a history of Covid-19.

Materials and methods

Within the framework of the Russian Science

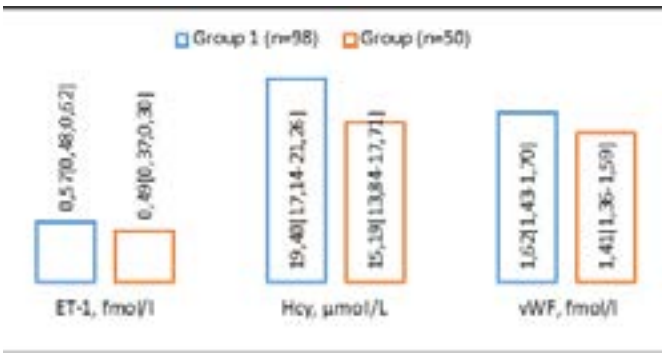

Figure 1. Concentration of biochemical markers of DE in blood in COPD patients with covid history

Foundation scientific project (No. 22-25-00592) we are examined 148 patients with stable COPD aged from 64 to 70 years, predominantly men (76.9%). Patients divided into 2 groups according to the presence or absence of COVID-19 in their medical history: Group 1 (n=98) - COVID-19 reconvalescents examined 6±2 weeks after discharge from the infectious hospital; Group 2 (n=50) - stable COPD patients without a history of viral infection. In the study sample, bronchial obstruction corresponded to the GOLD II (72.9%). The duration of COPD was 16.2±3.2 yearsIn the study, the concentration

of DE biomarkers was determined in the blood of all patients: endothelin-1 (ET-1, fmol/l), total homocysteine (Hcy, µmol/l), Willebrand factor antigen (vWF, fmol/l). Statistical analysis performed in Statistica 10.0 programme.

Results and discussion

Concentrations of biochemical markers of DE in COPD patients according to the presence of COVID-19 history presented in Figure 1. Hcy concentration was found to be 21.7% higher in group 1 than in group 2 ($p<0.01$) and was 19.40[17.14-21.26] µmol/L, respectively. ET-1 levels in group 1 were also 14.0% higher (0.57[0.48; 0.62] fmol/L, at $p<0.05$). Plasma vWF in group 1 was 1.62[1.43-1.70] fmol/L, which was higher than group 2 by 12.9% ($p<0.05$).

Thus, in COVID-19 patients with COPD, in the subacute period of COVID-19 there is a more pronounced ED than in patients with isolated COPD of stable course due to increased concentration of such biomarkers as Hcy, ET-1, vWF. The study requires continuation, and raise the question for the scientist about the long-term impact of the transferred viral infection on the course of COPD. The study was supported by the Russian Science Foundation grant No. 22-25-00592, https://rscf.ru/project/22-25-00592/.

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COMBINED USE OF ULTRASOUND THERAPY AND MAGNETOTHERAPY IN COMPLEX REHABILITATION OF POSTPARTUM WOMEN

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Abstract. Postpartum complications are an important medical and social problem and one of the leading causes of maternal morbidity and mortality. The article presents the results of rehabilitation of postpartum women using preformed physical factors in combination with drug therapy. The combined use of ultrasound therapy and magnetotherapy on uterine involution in the postpartum period is most effective in multiparous women and helps reduce the frequency of postpartum purulent-septic complications.

Keywords: Uterine involution, magnetotherapy, ultrasound therapy.

Severe postpartum inflammatory diseases have a negative impact on menstrual, sexual, and reproductive functions in women. Physical factors are used for the prevention and treatment of postpartum inflammatory diseases in combination with drug therapy.

Objective

To evaluate the effectiveness of combined ultrasound therapy and magnetotherapy on uterine involution in the postpartum period.

Materials and methods

A retrospective study was conducted on 53 patients who delivered at the Blagoveshchensk City Clinical Hospital Maternity Ward at gestational ages between 37 and 41 weeks. The inclusion criterion was the delivery of a singleton live full-term infant. Group I consisted of 34 women who had spontaneous onset of labor and delivered per vias naturales. Group II included 12 women who underwent pre induction and labor induction and delivered per vias naturales. Group III consisted of 7 women who delivered via cesarean section.

Results and discussion

In Group I, the majority of women, 65% (22), were multiparous, while 35% (12) were primiparous. In Group II, 83% (10) of women were primiparous, while 17% (2) were multiparous. In Group III, the majority, 71% (5), were multiparous, while 29% (2) were primiparous. Multiparous women accounted for 23% (12) of the total. 87% (46) of the women were between the ages of 18 and 35. Women over

the age of 35 accounted for 13% (7). The average age was 32 years and was predominant in Group III. The most common extragenital diseases were cardiovascular diseases, diagnosed in each third women in Group I and each fifth women in Group II. The second most frequently diagnosed diseases were urinary tract diseases and diseases of the eyes and its adnexa, most commonly diagnosed in 21% of women in Group I and 17% in Group II. Respiratory organ diseases ranked third, diagnosed in 9% of women in Group I. Obstetric-gynecological history was complicated by medical abortions in 57% of women in Group III, 30% in Group I, and 8% in Group II. Spontaneous miscarriages were reported in the history of 25% of women in Group II, 15% in Group I, and 14% in Group III. Inflammatory diseases of the female pelvic organs were reported in the history of 27% of women in Group I. In Group III, complications in the postpartum period in the form of endometritis were noted in 57% of cases. Pregnancy was complicated by gestational diabetes in 17% of women. 6% of women experienced a new coronavirus infection COVID-19, and 6% had acute respiratory viral infections. The most common complication of childbirth was premature rupture of membranes, diagnosed in 43% of women in Group II and 9% in Group I. Prolonged rupture of membranes was predominant in 58% of women in Group II and 16.5% in Group I. Weakness of labor was diagnosed in 6% (4) of women. In 2 cases, it was effectively treated with medication, in 1 case vacuum extraction of the fetus was used, and in 1 case cesarean section was performed. Pathological placental attachment was diagnosed in 3 cases, accounting for 6%, and required manual placental separation. Cervical tears were diagnosed in 13% (7) of women. Episiotomy and perineal tears were repaired in 42% (22) of women. Large fetus delivery occurred in 11% (6) of women. The average amount of blood loss in Groups I and II was 227 ml, while in Group III it was 643 ml. All infants were born in satisfactory condition. Considering the risk of developing postpartum purulent-inflammatory diseases, women received antibacterial and uterotonic therapy, as well as combined ultrasound therapy and magnetotherapy. To assess the effectiveness of the therapy, we evaluated the dynamics of uterine contractions based on ultrasound examination. In Group I, primiparous women predominantly had a decrease in the size of the thickness and length of the uterus, while in multiparous women all dimensions of the uterus decreased evenly. In Group II, a decrease in the length and thickness of the uterus predominated. In Group III, primiparous women had a decrease in the width of the uterus, while the length increased. In multiparous women, the size of the uterus decreased evenly. Thus, in multiparous women, regardless of the type of delivery, the dynamics of uterine contractions were even. In primiparous women in Groups, I and II, the most significant decrease was observed in the size of the thickness and length of the uterus, and in those who underwent cesarean section, a decrease in the width of the uterus was most significant. As a result of the therapy, only 8% (4) of women were diagnosed with subinvolution of the uterus, which indicated the need for manual vacuum aspiration from the uterine cavity with positive dynamics. 4% (2) of women were transferred to the gynecological department for further treatment.

Conclusion

Combined use of ultrasound therapy and magnetotherapy in the involution of the uterus in the postpartum period is most effective in multiparous women and significantly reduces the frequency of postpartum purulent-inflammatory complications.

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EXPERIENCE OF APPLYING NON-DRUG TECHNOLOGIES FOR COR-RECTING POST-STROKE PSYCHO-EMOTIONAL AND SLEEP DISORDERS

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Abstract. One of the factors that significantly worsen the condition of post-stroke patients is the addition of psy-cho-emotional and sleep disorders. The aim of the research was to study the structure of anxiety-depressive and sleep disorders in 210 patients in the acute period of ischemic stroke and to evaluate the effectiveness reflexotherapy methods in their correction. On the 15th day in the main group (140 patients who received reflexotherapy procedures in addition to the standard rehabilitation complex), the frequency and severity of post-stroke depression (according to the Beck scale) significantly de-creased ($p < 0.001$) (on average by 4.9 points, 30 %), reactive anxiety (according to the Spielberger-Khanin scale) decreased by an average of 8.5 points (22 %, $p < 0.001$), the level of motivation (according to the data of the A.Rean's questionnaire) significantly ($p < 0.001$) increased (by 2.3 points, 18 %), and patients were already focused on success, the overall assessment of sleep quality (according to the Spiegel scale) increased by 10.4 points (40.6%, $p < 0.001$). While in the comparison group (70 patients who received a standard set of rehabilitation measures) there were no significant changes.

Key words: ischemic stroke, post-stroke depression, reactive anxiety, motivation, sleep disorders, re-flexotherapy

In the acute period of a stroke, one of the factors aggravating the condition of patients is the development of psycho-emotional disorders in the form of anxiety, depression and a decrease in the level of motivation [1,2], as well as sleep disorders that are in the «shadow» of the main (motor) defect, but sometimes significantly affect the «quality of life» and the course of rehabilitation treatment of post-stroke patients [3]. As a result, the state of these functions can serve as a prognostic criterion for the recovery of patients [3], and the development of various non-drug methods, in particular reflexotherapy technologies, for their correction not only remains relevant, but also requires further research to find the most effective ones.

Objective

The aim of the study was to study the structure of psycho-emotional and sleep disorders in patients in the acute period of stroke and to evaluate the effectiveness of methods of reflexotherapy in their correction.

Materials and methods

210 patients in the acute period of ischemic stroke took part in the study conducted on the basis of the primary vascular department of the Blagoveshchensk City Clinical Hospital, of which 140 (main group) received reflexotherapy procedures in addition to the standard rehabilitation complex, and 70 patients of the comparison group who also received standard rehabilitation, but without the inclusion of reflexotherapy methods. Patients of both groups did not differ significantly in terms of gender, age, type and severity of stroke. The average age of patients in the main group was 63.1 ± 0.9 years and in the comparison group - 64.1 ± 0.9 years. There was a slight predominance of men in both groups (52 and 48% and 51 and 49%, respectively). The criteria for exclusion from the study were the use of antidepressants and drugs with a hypnotic effect, severe intellectual-mnestic, speech and movement disorders that prevent testing. Methods of reflexology began to be carried out no later than 3-5 days of the patients' stay in the hospital. The condition of patients was assessed in dynamics after 10 procedures.

Results and discussion

Primary analysis of the level of anxiety and depression in patients with ischemic stroke showed a significant excess of healthy individuals. 72% of those tested (according to the Back scale) showed signs of depression, the level of reactive anxiety (according to the Spielberger-Khanin scale) at the time of the start of rehabilitation measures was quite high and in 75.7% reached the level of moderate and high (above 30 points). Moreover, in 64.8%, all the described changes were recorded against the background of high personal anxiety (above 46 points), which confirms the importance of premorbid personality traits in the development of anxiety-depressive disorders. In the study of motivation, according to the data of the A.Rean's questionnaire, it was found that the motivational pole was not clearly expressed (on average 12.7 ± 0.4). Almost all patients (96%) complained of various sleep disorders. On average, the total score (on the Spiegel scale) was 15.2 ± 0.14 points. According to all indicators of the psycho-emotional state and manifestations of insomnia, the patients of the main and comparison groups did not differ at the time of the start of rehabilitation measures. At the end of the course of non-drug rehabilitation

in the main group, the frequency and severity of post-stroke depression significantly decreased ($p < 0.001$) (on average by 4.9 points (30%), and depressive disorders were diagnosed only in 80 (57%) patients), reactive anxiety decreased by an average of 8.5 points (22%, $p < 0.001$), the level of motivation significantly ($p < 0.001$) increased (by 2.3 points, 18%), and patients were already focused on success. Patients of the main group also noted the normalization or improvement of sleep (about 90%, in contrast to 25% of the comparison group). Thus, the total assessment of sleep quality in patients of the main group was already 25.6 ± 0.13 points (increased by 40.6%, $p<0.001$). In the comparison group, there were no significant changes in all indicators ($p>0.05$). The significance of the psycho-emotional state and quality of sleep for the effectiveness of the rehabilitation process was confirmed by faster regression of neurological symptoms (according to the NIHSS scale) and higher activity in everyday life (Barthel ADL index) in patients of the main group.

Thus, the optimization of the early rehabilitation of post-stroke patients by the inclusion of reflexotherapy methods showed its high antidepressant and anti-anxiety effect in combination with an increase in the level of motivation of patients and an improvement in the quality of sleep against the background of a significant acceleration of the regression of neurological deficit and improved adaptation of patients to everyday life.

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CORRELATION AND REGRESSION ANALYSIS OF THE CONTENT OF INTERLEUKINS AND PRODUCTS OF OXIDATIVE MODIFICATION OF LIPIDS IN THE BLOOD OF PATIENTS WITH CATARACTS AND COVID-19

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Abstract. The results of correlation and regression analysis confirm the relationship between the development of inflammation and oxidative stress in patients with cataracts during the addition of coronavirus infection, namely the dependence of the content of lipid oxidative modification products in the blood on the content of pro-inflammatory interleukins. This connection is most clearly seen in the case of interleukins 6 and 10. Unlike patients with COVID-19, this connection is not detected in SARS-Cov2 negative neurological patients.

Key words: Cataract, COVID-19, interleukins, oxidation, lipids, correlations, regression.

Inflammation and oxidative stress are considered to be the most important pathogenetic mechanisms in the development of COVID-19. Proinflammatory interleukins can act as mediators of inflammation. Previously, we published the results of a study of the content of pro-inflammatory interleukins and oxidized forms of lipids in the blood of SARS-Cov2 negative patients with cataracts and patients with associated COVID-19. In the blood of patients, the content of oxidized lipids was significantly increased in relation to healthy people, and the addition of COVID-19 was accompanied by a significant additional increase in the content of oxidized forms of lipids and pro-inflammatory interleukins [2].

Aim of the study

In order to clarify the relationship between the processes of inflammation and the activation of oxidative processes in COVID-19, conduct a correlation and regression analysis of the content of four interleukins and oxidatively modified lipids in the blood of SARS-Cov2 negative patients with cataracts and patients with associated COVID-19.

Materials and methods

The study group included 140 patients with cataracts that developed against the background of chronic obstructive pulmonary disease, cardiovascular diseases, diabetes mellitus, etc. Of this number, 111 patients were SARS-Cov2 negative (control group) and 29 with COVID-19. The patients were treated as inpatients in the ophthalmology

departments of the Blagoveshchensk City Clinical Hospital and the Amur Regional Clinical Hospital. Correlation and regression analyzes were carried out using STATISTICA 64 12 software. Paired correlations were studied and paired linear regression coefficients were calculated between the blood levels of IL-6, IL-8, IL-10, IL-18 and oxidatively modified forms of lipids (diene conjugates, conjugated dienes and ketodienes, lipid hydroperoxides and a component of the antioxidant system vitamin E alpha-tocopherol) in the blood of patients.

Results and discussion

The results of the correlation analysis are presented in Table 1.

Table 1. Correlations between the content of interleukins and lipid oxidation products

IL	Group	E_{204}	E_{233}	E_{233}/E_{204}	E_{278}	E_{278}/E_{204}	DC	LH	Vitamine E
IL-6	Control	-0,19	0,01	0,13	-0,01	0,00	0,1	-0,08	-0,14
	COVID-19	-0,26	0,50*	0,56**	0,53**	0,59***	0,50**	0,45*	0,23
IL-8	Control	-0,20*	0,14	0,26	-0,06	-0,01	0,14	-0,22	0,15
	COVID-19	0,22	-0,07	-0,18	-0,15	-0,09	-0,07	0,60***	0,43*
IL-10	Control	-0,02	-0,05	-0,04	0,01	0,00	-0,05	0,14	0,11
	COVID-19	-0,08	0,52**	0,70***	0,73***	0,80***	0,53**	0,61*	0,64**
IL-18	Control	0,18	-0,05	-0,24	-0,02	-0,13	-0,16	0,16	0,13
	COVID-19	0,13	-,036	-0,36	-0,31	-0,16	-,036	-0,17	-0,30

IL – interleukin; E204 absorption of non-oxidized lipids; E233 absorption of diene conjugates; E278 – absorption of conjugated dienes and ketodienes; DC – diene conjugates; LH – lipid hydroperoxides; * Significance level p<0.05; ** Significance level p<0.01; *** Significance level p<0.001

In the control group, no significant correlations (correlation coefficient >0.3) were found between the blood levels of interleukins and products of oxidative modification of lipids, as well as vitamin E. In contrast, in the group of cataract patients with associated COVID-19, significant correlations were identified for all interleukins, and for inteleukin 6 and interleukin 10, most correlations were of medium strength (>0.5<0.7) and strong (>0.7) . The minimum number of significant correlations was characteristic of interleukin 8. To establish the quantitative dependence of the content of oxidized forms of lipids on the content of interlekins 6 and 10 in the group of patients with COVID-19, we conducted a regression analysis. The results of determining the coefficients of paired linear regression are presented in Tables 2 and 3.

Table 2. Coefficients of paired linear regression between indicators, reflecting the content of oxidized forms of lipids in the blood and the content of interleukin 6

Regression statistics		E_{233}	E_{233}/E_{204}	E_{278}	E_{278}/E_{204}	DC	LH	Vitamine E
Regression (F significance)		0,041	0,020	0,035	0,012	0,041	0,068	0,979
Y-intersection	Coefficient P	0,048 0,050	0,0107 0,009	0,0129 0,229	6,19 <0,001	84,8 <0,001	76,5 <0,001	27,4 0,034
Variable X1	Coefficient P	0,022 0,020	0,0017 0,035	0,0061 0,012	0,641 0,041	1,72 0,068	0,082 0,979	2,58 0,052

From the presented results it follows that, taking into account the significance of regression (F) and assessing the reliability of the values of regression coefficients (P), for most of the determined indicators of the degree of lipid oxidation, the content of interleukin 6 in the blood is significant. For example, for the content of diene conjugates in the blood, the equation reflecting this dependence will look like:

$$[DK]=84.8+[IL\text{-}6]\times 1.72$$

In the case of interleukin 10, a significant dependence was established for diene conjugates and conjugated dienes (E233, DC) and ketodienes (E278).

$$[DK]=8.23+[IL\text{-}10]*0.359$$

Table 3. Coefficients of paired linear regression between indicators, reflecting the content of oxidized forms of lipids in the blood and the content of interleukin 10

Regression statistics		E_{233}	E_{233}/E_{204}	E_{278}	E_{278}/E_{204}	DC	LH	Vitamine E
Regression (F significance)		0,027	0,274	<0,001	0,274	0,026	0,419	0,495
Y-intersection	0.0421	5,23	0,0139	2,16	8,23	90,7	83,4	27,4
	<0,001	0,148	<0,001	0,148	<0,001	<0,001	<0,001	0,034
Variable X1	0,0018	-0,634	0,0018	-0,262	0,359	0,695	1,21	2,58
	0,027	0,274	<0,001	0,274	0,026	0,419	0,495	0,052

Conclusion

The results of correlation and regression analysis confirm the relationship between the development of inflammation and oxidative stress in patients with cataracts during the addition of coronavirus infection, namely the dependence of the content of lipid oxidative modification products in the blood on the content of pro-inflammatory interleukins. This connection is most clearly seen in the case of interleukins 6 and 10. Unlike patients with COVID-19, this connection is not detected in SARS-Cov2 negative neurological patients.

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SURGICAL TREATMENT OF ACHALASIA OF CARDIA

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Abstract. The results of endovideoscopic surgical treatment of 10 patients diagnosed with stage III-IV achalasia cardia were analyzed. In the preoperative period, general clinical examination methods, fibroesophagogastroduodeno scopy, fluoroscopy of the esophagus and stomach were performed. The patients underwent surgery: endovideoscopic eso-phagocardiomyotomy with esophagogastroplasty modified according to T.A. Suvorova. The postoperative period proceeded without complications. Good immediate and long-term results were obtained 1 year after the operation.

Keywords: diseases of the esophagus, achalasia cardia, surgery, esophagocardiomyotomy, esophagocardiogastroplasty.

Objective

Achalasia cardia is a disease of the esophagus in which the function of the lower esophageal sphincter is disrupted and dysphagia occurs. Achalasia cardia accounts for 3-20% of all esophageal diseases [1]. In clinical practice, the classification of B.V. Petrovsky (1973) is often used. Surgical treatment is carried out in stages III and IV. The gold standard is Heller's esophagocardiomyotomy (1913). Currently, videolaparoscopic cardiomyotomy according to Heller is supplemented with fundoplication according to J. Dor [2]. One of the options for fundoplication is a modification of esophagocardiogastroplasty according to T.A. Suvorova (1957). The peculiarity of

the operation is that a triangular fold of the anterior wall of the stomach is sutured to the muscle layer defect after cardiomyotomy, which acts as a spacer and prevents restenosis, and also forms an acute angle of His [3].

Aim of the study: to study the results of the use of endovideoscopic operations for achalasia cardia in the early and late postoperative period.

Material and methods

10 patients with achalasia cardia aged from 33 to 72 years under-went endovideoscopic esophagocardiomyotomy with esophagocardiogastroplasty modified according to T.A. Suvorova. Of these, 8 are women and 2 are men. 6 patients had stage III and 4 had stage IV according to B.V. Petrovsky.

Results and discussion

All patients were admitted for planned surgical treatment. Complaints upon admission: difficulty passing food through the esophagus, vomiting of eaten food, weight loss. History of the disease from 2 to 10 years. Fibroesophagogastroscopy: esophagitis and circular narrowing of the esophagus in the lower third, impassable to the endoscope. Contrast fluoroscopy: expansion of the lumen of the esophagus, cone-shaped narrowing of the lower esophageal sphincter, slowdown in the flow of contrast from the esophagus into the stomach. Elongation of the esophagus and S-shaped deformity were detected in 4 patients with stage IV. The patients underwent surgery: endovideoscopic esophagocardiomyotomy with esophagocardiogastrolasty modified according to T.A. Suvorova. During surgery: dilation of the esophagus in the lower third to 6-8 cm with a sharp narrowing in the cardiac region. An esophagocardiomyotomy was performed over a distance of 5-7 cm to the submucosal layer. The esophagus for a probe with a diameter of 2 cm is freely passable. The anterior wall of the stomach in the form of a triangular fold is fixed with separate interrupted atraumatic sutures to the edges of the resulting 6x5 cm defect.

All patients had a smooth course of the early postoperative period, without signs of dysphagia. On the 6th day, a control endoscopy was performed, during which the endoscope passed freely through the esophagus. Fluoroscopy revealed free flow of contrast from the esophagus into the stomach. No complications were noted. A follow-up examination after 1 year showed good clinical results: no dysphagia and weight gain of up to 7 kg. X-ray and endoscopic examination showed that the patency in the lower esophageal sphincter was not impaired. Analysis of the treatment results showed that videolaparoscopic esopha-gocardiomyotomy with esophagocardiogastroplasty, modified according to T.A. Suvorova, was successfully used for this pathology. Compared to commonly used methods, fundoplication (J.Dor, A.Toupet, R.Nissen) can be considered as an alternative to surgical correction for achalasia cardia.

Conclusion

Videolaparoscopic esophagocardiomyotomy with esophagocardiogastroplasty according to T.A. Suvorova in patients with stages III–IV of achalasia cardia (according to B.V. Petrovsky) is functionally justified. The operation is relatively simple and less traumatic. The immediate and long-term results of treatment have demonstrated an improvement in the quality of life of patients and the absence of relapse of the disease.

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MODERN APPROACHES TO REPARATIVE PROCESSES FOR FRACTURES OF THE PROXIMAL HIP

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Abstract. The publication describes the experience of treating reparative processes in fractures of the proximal femur of the traumatology department of the Amur Regional Clinical Hospital.

Keywords: fractures of the proximal femur, treatment.

Currently, there are a sufficient number of studies, including foreign ones, devoted to the treatment of fractures of the proximal femur (lateral fractures) [1,3,5]. However, the results of treatment leave much to be desired.

Unlike intra-articular fractures, lateral trochanteric fractures are almost always «safe», extra-articular, so there is no danger of avascular necrosis.

Aim of the study: to increase the efficiency of reparative processes of bone wounds in case of violation of the integrity of extra-articular fractures of the proximal femur and to substantiate the use of operations with various implants to stimulate bone remodeling and reduce the time of treatment of trauma patients.

Materials and methods

According to the official record-keeping documentation of patients treated in the traumatology department with combined trauma beds of the Amur Regional Clinical Hospital (AOKB), the effectiveness of known methods of treating fractures of the proximal femur (lateral fractures) affecting the formation, acceleration and restructuring of reparative osteogenesis was studied.

In this work, we used: official (2020-2022) accounting and reporting documentation, operating journals, statistical cards of patients who left the hospital in the traumatology department with beds of combined trauma of the ASCH (321 case histories).

Results and discussion

Most of the victims are women 215 (66.9%) of non-working age. Often there were affected patients over the age of 60 years 253 (78.8%).

Regardless of the age of the patients and their somatic condition in our clinic, fractures of the proximal femur (lateral fractures) were treated by conservative methods (53 patients - 16.5% were treated) [1].

According to our data, the proportion of operated patients with fractures of the proximal femur (lateral fractures) in the traumatology department with beds of concomitant injury of AOCH is 268 people - 83.47%.

In accordance with the Federal clinical guidelines: «Fractures of the proximal femur» 2021, with additions at local levels, osteosynthesis with the DHS 76 system (23.6%) and proximal femoral rods 156 (48.5 %) was used as the method of choice in the treatment of the above fractures.) [2, 3, 4].

The choice of tactics of surgical treatment for fractures of the proximal femur (lateral fractures) was determined taking into account age and the presence of concomitant pathology. The age of patients older than 60 years and the osteoporotic state of bone structures forced the surgeon to choose minimally invasive treatment methods [5]. The main task is to save the lives of victims and prevent complications [6,7].

Conclusions

1. After the approval of the Federal clinical guidelines: «Fractures of the proximal femur» supplemented at the local level, (ICD 10: S72.0, S72.1, S72), taking into account federal funding, the treatment of such victims is carried out on the first day.

2. The use of osteosynthesis by the DHS system and proximal femoral rods led to a decrease in mortality and early rehabilitation of the victims.

3. The use of anticoagulant, antibacterial therapy for prophylactic purposes in the postoperative period and a specially designed rehabilitation program contributed to fewer complications compared to previous years.

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HELMINTHOSES OF THE UPPER AMUR REGION - HISTORICAL PERSPECTIVE OF STUDY

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Abstract. The relevance of the problem is justified by the fact that in the Russian Federation officially registered about 2 million persons infected with helminths. The history of the study of helminthic diseases in the Far East (FE) began 95 years ago (1928), when the first scientific expedition was organized under the leadership of Academician K.I. Skryabin. Subsequently, the human helminth fauna was intensively studied in the middle and lower reaches of the Amur River by the staff of the Khabarovsk State Medical Institute [1]. Complex sanitary-epidemiologic and parasitologic studies to detect helminthic diseases were continued by the staff of the Blagoveshchensk State Medical Institute (now Amur State Medical Academy) since its opening in 1952.

Keywords: helminthoses of the Upper Amur, trichinellosis, clonorchiasis, metagonimiasis.

Purpose: To analyze the history of helminthosis research in the Amur region by the staff of the Blagoveshchensk State Medical Institute (BGMI) since its opening and their priorities in the study of trichinellosis, clonorchiasis and metagonimiasis in the Upper Amur and Zeya basins.

Materials and methods

Scientific sources on the problem of helminthiasis in PubMed, e-Library, Scopus databases and archival documents - articles of departmental staff in the Proceedings of the BGMI (1955-1975) with the analysis of the obtained data were studied.

Results and Discussion

The first biohelminthosis studied in BGMI was trichinellosis, endemic to several districts of the Amur region, causing severe course and often lethal outcomes. Detailed study of clinical manifestations with complex diagnostics (ECG, EEG, biochemical methods) was carried out by the department of propaedeutics of internal diseases (head associate professor Ptitsyn S.G. - rector of BGMI). The results were published in 1955 in the first volume of the Proceedings of the BGMI [2] and attracted the attention of the staff of the department of regional epizootology of the DalNIVI. The priority study of the trichinellosis situation in the Far East was carried out by V.A. Britov, examining the muscles of cadaver material from morgues of Blagoveshchensk and cities of the Far East. The scientist named not only brown bear meat, but also pigs as a source of infestation, and for the first time he described the formation of a synanthropic focus of trichinellosis involving domestic animals, and named trichinosis-carrying animals identified in the Far East and the North [3]. Along with the study of infectious agents, the staff of the Department of Hygiene of the BGMI together with the Amur Regional Sanitary and Epidemiological Station (SES) in 1953-1963 conducted sanitary and hygienic assessment of the Amur River and its main tributary Zeya, including sanitary and topographical study of the rivers, analysis of physical and chemical-bacteriological properties of water, study of the nature of sewage and its impact on the sanitary regime of these rivers [4]. In 1963, the Department of Biology of the BGMI together with the parasitological department of the Sanitary and Epidemiological Service published statistical data on helminthic diseases in

Blagoveshchensk with an analysis of the population infestation with nematodoses and cestodoses from 1945 to 1961.

Since 1954, the Department of Biology of the BGMI began studying the parasitic hydrofauna of the Upper Priamurye, including participants in the life cycle of Clonorchus and Metagonimus. The motivation was the data on the existence of natural foci of trematodoses historically formed through the evolution of communities in the Russian Far East and in all countries of Southeast Asia. The results of the study allowed the authors to make a conclusion about the existence of a natural focus of clonorchiasis in the surveyed territory of the Upper Priamurye, which significantly supplemented the data on its geographic distribution and allowed us to continue the initiated studies with the participation of Kirillov V.A., Dymin A.S. and a group of clinicians from BGMI [5]. The existence of a natural focus of metagonimiasis (Metagonimus yokogawai) in the Amur region was confirmed by the priority works of A.S. Shatrov. Studies in 1966-1968 allowed the authors to conclude that there are natural foci of clonorchiasis and metagonimiasis in the Amur and Zeya river basins, and to continue the present studies by including a set of morphological methods for verification of all stages of the parasite life cycle. A detailed examination of mollusks for infestation with larvae of the Japanese sucker revealed variants of sporocyst localization in the liver, gonads, hemoceles, and ventricular cavity of the heart [6].

In the XXI century, the problem of helminthoses has not lost its relevance, confirming the role of priority discoveries of natural foci of clonorchiasis and metagonimiasis in the Upper Priamurye basin by BGMI staff. The continuation of trematodosis research in ASMA is the first recreated on the basis of biolaboratory (2020) and functioning experimental model of metagonimiasis foci (docent Perminov A.A.). All stages of development of the Japanese plant sucker are verified morphologically (light, electron microscopy) with assessment of the degree of parasite invasion and the reaction of the host organs (mollusks, fish, mammals). Studies of endemic parasites, historically uniting scientists of the Far East and Southeast Asia, still do not lose their relevance.

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THE STRUCTURE OF DISEASES OF CHILDREN FROM MOTHERS WITH BRONCHIAL ASTHMA

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Abstract. A significant increase in allergic diseases among various age groups of the population, including women of reproductive age and children, noted in recent decades, dictates the need to improve measures for their prevention. The study investigated the frequency and structure of diseases in children in the first year of life born to mothers with bronchial asthma (BA), depending on the level of control and dynamics of the course of BA during pregnancy. In the first year of life, most children from mothers with BA had signs of atopic dermatitis.

Keywords: pregnant women, bronchial asthma, newborns, diseases

In recent decades, there has been a significant increase in allergic diseases worldwide among various age groups of the population, including women of reproductive age and children. Primary prevention of allergic diseases is an urgent interdisciplinary problem, and therefore it is of interest to study patients at risk of developing allergies and preventing allergic sensitization in them, starting from the prenatal period [4,5]. This risk group includes children born to mothers with bronchial asthma (BA) [1,2,3]. To develop preventive measures, it is necessary to know the structure of diseases in children born to mothers with BA.

Objective

The aim of the work was to study the frequency and structure of diseases in children born to mothers with BA. The clinical and anamnestic, functional data of the examined patients and their children were used.

Material and methods

The observation of 122 children aged from 1 month to 1 year, born from mothers with BA, was carried out. The comparison group included 70 children of the same age born from mothers without bronchopulmonary and allergic pathology.

Results and Discussion

When studying the medical and social factors affecting the formation of the health of children during first year, it was noted that 28 (23%) had incomplete family composition, in the comparison group - 14 children (20%). Active and passive smoking was observed in 26 families of BA patients (21.3%), in the comparison group – in 27 (20%), that is, the frequency of adverse medical and social factors in the families of the observed groups was almost the same.

To assess the impact on the health of children during first year of life of the level of BA control in mothers during pregnancy, 2 groups were formed from the observed children. Group I included 72 children from mothers with uncontrolled BA during pregnancy, group II – 50 children from mothers with partially or completely controlled BA, group III consisted of 70 children from mothers without bronchopulmonary pathology. 41 (33.6%) of mothers of groups I and II were born by caesarean section, 34 (27.9%) of them were resuscitated at birth. 55 children of group I (76.4%) and 16 of group II (32%) were discharged from the maternity hospital with cerebral ischemia of I-III severity, 22 children of group I (30.6%) were discharged with intrauterine infection (in the form of vesiculopustulosis, conjunctivitis), in group II - 9 (18%). A combination of cerebral ischemia and intrauterine infection was observed in 19 children of group I (26.4%) and 8 children of group II (16.0%). In the comparison group, these data were, respectively, 13 (18.6%) and 14 (20%), without combined conditions for these diseases. 3 children (4.2%) of group I and 7 children (14%) of group II were healthy. 11 children (15.3%) of group I and 4 children (8%) of group II were transferred to the children's hospital for further treatment. During the first year of life, of the syndromes of perinatal encephalopathy, the following were most often noted: hyperexcitability – in 12 (16.7%) children of group I and 7 (14%) - group II, hypertension syndrome, respectively, in 10 (13.9%) and 1 (2%) children, motor disorders syndrome – in 12 (16.7%) and 6 (12%), vegeto-visceral dysfunctions – in 12 (16.7%) and 4 (8%) children. Posthypoxic cardiopathy developed in 6 (8.3%) children of group I and in 2 (4%) children of group II. Physical development delay was observed in 12 (16.7%) children of group I and 4 (8%) of group II. 80 (65.6%) children from mothers with BA were naturally fed during the first half of the year, while in the comparison group - 52 (74.3%). In groups I-II, a high percentage of the introduction of early complementary foods was revealed - 43 children (35.2%), including products with high allergenic properties – 18 (14.8%). In the first year of life, the majority of children from mothers with BA had signs of atopic dermatitis – 67 (54.9%).

Conclusions

The data obtained indicate the need for primary prevention of BA, which provides for limiting the impact of risk factors for its development in the

perinatal period (exacerbation of allergic diseases, achieving control of BA during pregnancy, the development of gestosis, anemia of pregnant women, chronic placental insufficiency), in the first year of life (excluding the risk of implementation of IUI in the inflammatory process, the development of cerebral, obstructive syndromes), prevention of food, household, epidermal, drug allergies, which will reduce the manifestation of early asthma and delay the impact of negative effects on the formation of the disease in later age periods.

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MEDICAL AND SOCIAL PORTRAIT OF PREGNANT WOMEN WITH BRONCHIAL ASTHMA

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Abstract. In order to study the features of medical and social portrait, pregnant women with asthma observed in various time periods were examined: 1995-2001, 2002-2008, 2009-2014, 2017-2022. For the social characteristics of the patients, the following were analyzed: age, social and marital status, education, the financial condition of the family, the parity of childbirth, the burden of obstetric history, intoxication (smoking). In recent years, the frequency of pregnant women with asthma has increased. Due to the high urbanization of the population, the number of women whose careers come to the fore is increasing, which affects the increase in the percentage of first-time mothers of older age, negatively affecting both the course of asthma and pregnancy itself. The influence of social factors such as insufficient material security, instability of marital status on a woman's life has increased. Despite government measures to limit smoking, a large number of women have habitual nicotine intoxication, which negatively affects the health of pregnant women with asthma and the fetus.

Keywords: bronchial asthma, pregnancy, medical and social portrait, time periods.

Over the past decades, economic and social changes have taken place in the Amur Region, as well as in the whole country, which could not but affect the health of the population (including women of reproductive age), and demographic indicators. In recent years, great importance has been attached to the influence of social factors on a woman's condition during pregnancy. There is transformation of traditional stereotypes of reproductive behavior, patterns of family relations are changing. The creation of a family is postponed to a later age, the number of children in the family is decreasing, the dilemma of «child or career» is increasingly being solved in favor of the latter. The whole spectrum of social problems affecting a woman's reproductive attitudes is most clearly manifested during pregnancy. During the period of waiting for a child, all the contradictions caused by the impact of the social environment become more acute: this includes gender discrimination in the labor market, loss of economic independence, forced refusal to participate in public life, and changes in family relations, which undoubtedly affects the course of bronchial asthma (BA) during pregnancy [2,3]. It is known that external environmental factors play a role in the development of BA, along with genetic ones. The Amur region is distinguished by climatic (sharply continental climate, high humidity) and

demographic (migration of the population from the western regions of Russia and the CIS) features. Respiratory diseases have occupied a leading place in the structure of the general morbidity of the population in the Amur Region for decades [1].

Objective

The aim of the study to research the features of the medical and social portrait and its impact on the course of pregnancy in patients with asthma.

Materials and methods

To assess the medical and social portrait of 486 pregnant women, clinical and anamnestic data of pregnant women at various gestation periods, birth history, clinical and anamnestic data of children born to mothers BA.

There is a tendency to increase the number of pregnant women with BA, since 2009 - by 1.5 times ($p>0.05$) (compared to previous years). So, if the frequency of pregnant women with BA in the 90s was, on average, 3.9 per 1000, then in subsequent years - 5.2 per 1000 (an increase of 25%). It was revealed that among pregnant women during the studied period there was an increase in the frequency of the I mature period and a decrease in the adolescent and II mature age. An increase in the frequency of older primiparous – up to 15.7% versus 9.6% in the 90s and early 2000s. In general, the average age of pregnant women ranged from 23.0 to 28.0 years, i.e., the predominant was the first mature age.

Over the past decade, the number of employees among pregnant women has increased and the number of working specialties has noticeably decreased, especially among patients with BA – by 2.3 times ($p<0.05$). There is a tendency to increase the number of housewives – by 1.5 times, the percentage of women who are individual entrepreneurs has increased. The number of students among pregnant women with BA tends to decrease. In recent years, against the background of an increase in the number of pregnant women with BA who have higher ($p<0.05$) and secondary specialized education, a greater number of registered marriages, i.e., a more stable social status, has been noted.

In recent years, there has been a tendency to decrease material well-being (by 13.5%) and deterioration of living conditions (by 4.1%), which may be due to the spread of a new coronavirus infection, deterioration of socio-economic living conditions, meteorological conditions (floods) and the resulting psycho-emotional instability and tension of family relations. It should be noted the increased proportion of active and passive smoking, including the use of electronic cigars - both among pregnant women with asthma and among patients of the control group (by 6.8% and 9.1%, respectively, $p<0.05$).

Taking into account the characteristics of the medical and social portrait of pregnant women with BA, an interdisciplinary approach to the observation of this category of patients, including both medical and social aspects, is necessary.

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DIHYDROQUERCETIN ANTI-INFECTIVITY LEVELS

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Abstract. Further study of dihydroquercetin has target its anti-infectivity. The antioxidant activity of dihydroquercetin is due to the ability to neutralize the damaging effect of free radicals during oxidative stress. The same mechanisms realize the anti-inflammatory effect. Recent studies have shown the antimicrobial effect of dihydroquercetin in vitro. The use of dihydroquercetin as an anti-infective agent in vivo requires future study.

Keywords: anti-infectivity, microflora, microbial adhesion, inflammation, flavonoids, dihydroquercetin

Almost nine decades have passed since the discovery of dihydroquercetin in 1936 [9]. Since 1947, its systematic study began [5]. As a dietary supplement, dihydroquercetin has been produced since the 1980s. And the study of the properties of this flavonoid for medical use is still ongoing. The antioxidant ability to neutralize the damaging effect of free radicals formed during oxidative stress turned out to be a universal mechanism for resisting multiple pathological processes.

In order to review further prospects for the use of dihydroquercetin in medicine, let's remember that since the late 1960s, studies have begun on the effect of substances related to dihydroquercetin on pathogenic bacteria [3]. It should be noted that those antimicrobial substances that are active in concentrations less than 10 micrograms/ml are of value for pharmacology [6].

At the beginning of the century, a dozen flavonoids with the most pronounced bactericidal activity were identified (Panduratin A, Sepicanin A, Isobavachalcone, Isolupalbigenin, Bartericin A, Flavone, Scandenone, 3'-O-methyl-diplacol, Kaempferol-rhamnoside, Licochalcone A). As we can see, dihydroquercetin is absent in this list. There is dihydroquercetin antimicrobial activity was revealed later in vitro E.coli culture [10]. Using the example of a culture of methicillin-resistant staphylococcus aureus, the synergism of dihydroquercetin with broad-spectrum bactericidal pharmacological agents — levofloxacin (a fluoroquinolone group agent) and ceftazidime (a third-generation cephalosporin group antibiotic) is shown. [1]. Now it is known that the pathogenetic point of exposure to dihydroquercetin is the mechanisms of inflammation [4]. The bactericidal activity of dihydroquercetin is due to the presence of phenolic groups in its molecule. But it remains a promising area of investigation of the properties of dihydroquercetin in vivo. In 2014 it was reported that dihydroquercetin reduces the migration of leukocytes to the focus of cerebral ischemia in an experiment [11]. It is known that the adhesion of the pathogen to target cells plays a key role in the infectious process, which largely determines the onset, nature and course of the disease. In a bacterial cell, the functions of recognition and binding to target cells are due to the presence of specialized structures — adhesives, which can be represented by molecules of the bacterial outer surface (proteins) or specialized organelles (pili) [8]. Therefore, if dihydroquercetin inhibits the adhesion of leukocytes, then it would be logical to assume that the same would be true for the adhesion of pathogens to target cells. But at the same time, it is known that normally, with food, a person daily absorbs from 50 to 800 mg of flavonoids, among which there is both dihydroquercetin itself and its isomer trans-(2R,3R)-dihydroquercetin, known as taxifolin [2]. If this were an indisputable phenomenon, then the incidence of infectious diseases would tend to a minimum, and maybe it would depend on the dose of absorbed flavonoids. Moreover, the sensitivity of microorganisms can be affected not only by large molecules (dihydroquercetin has a molar mass of 304.25 g/mol), but also by elementary metal ions, for example, colloidal silver (with a molar mass of 2 g/mol), or copper (3 g/mol) [7].

The anti-infective properties of dihydroquercetin in vivo are awaiting future study.

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IMMUNOMODULATING EFFECTS OF LOW-INTENSITY LASER RADIATION AND BLOOD OZONIZATION IN DIABETES MELLITUS COMPLICATED WITH DIABETIC FOOT

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Abstract. A comparative assessment of the parameters of the immune status in patients with diabetes mellitus complicated by diabetic foot under the influence of separate and combined exposure to low-intensity laser radiation and blood ozonation is given. A significant efficiency of these methods ($p<0.05$) was established, which is expressed in an increase in cellular (CD3, CD4, CD25, CD16) and humoral (CD20, IgA, IgM) immunity. Moreover, the combined use of laser radiation and blood ozonation had a more pronounced effect on the immunological reactivity of the body.

Keywords: diabetes mellitus, diabetic foot, immune status.

In the pathogenesis of many diseases, great importance is attached to disorders in the immune system. In this regard, various methods are used to influence the normalization and increase in the activity of immune mechanisms. Previous studies have shown that in diabetes mellitus, complicated by diabetic foot, the disease occurs against the background of pronounced immunological disorders. A combined type of immune disorders is characteristic, including the simultaneous development of insufficiency of cellular and humoral immunity.

Objective

The purpose of this work is to study the effectiveness of separate and combined effects of low-intensity laser radiation and blood ozonation on the immunological reactivity of patients with diabetes mellitus complicated by diabetic foot.

Materials and methods

The study involved 40 patients with diabetes mellitus complicated by diabetic foot, divided into 3 groups. In the first observation group, laser therapy sessions were included in the complex treatment. Intravenous laser irradiation of blood was performed in 10 patients with the apparatus «Mulat» daily, the duration of the procedure was 20 minutes, in total 10 sessions. In the second group, blood ozonation was performed in 10 patients by intravenous infusion of ozonized saline solution 200 ml daily, in total 10 sessions per course. In the third group, intravenous laser blood irradiation and blood ozonation were used jointly in 20 patients. The immunological study included the immunophenotyping of CD antigens of immunocompetent cells using monoclonal antibodies and the determination of immunoglobulins. Blood sampling for research was carried out before treatment and 2-3 days after the course of treatment.

Results and discussion

When the methods of intravenous laser blood irradiation and blood ozonation were included in the complex treatment, an increase in the main immunological parameters was noted compared with the initial data before treatment. There was a significant increase in CD3, CD4, CD16, CD25, IgA

($p<0.05$) and a trend towards an increase in CD8, CD20, IgM ($p>0.05$). Moreover, the combined use of intravenous laser irradiation of blood and ozonized solutions had a more pronounced effect on the immunological reactivity of the body compared to the separate use of these methods. In this observation group, there was a significant increase in most immunological parameters in comparison with the initial data and in comparison with the indicators determined in the groups of separate use of intravenous laser blood irradiation and blood ozonation.

Conclusions

It has been established that diabetes mellitus complicated by diabetic foot occurs against the background of secondary immunodeficiency. When used separately in the complex treatment of low-intensity laser radiation and blood ozonation, an increase in the main indicators of the immune status was noted, but it was not possible to achieve normal values. The most pronounced effect on immunological reactivity was exerted by the simultaneous use of these methods. At the same time, there was a significant increase to normal values ($p<0.05$) in the number of lymphocytes, CD3, CD4, CD16, CD25, Ig A, and CD25 exceeded the reference values, Ig G remained initially above the norm.

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APPROACHES TO THE CORRECTION OF VITAMIN D DEFICIENCY

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Abstract. The literature review presents current data on vitamin D, describes the features of metabolism, biological and pharmacological properties of various vitamin D vitamers. Methods of vitamin formation in the human body are described, due to food intake and exposure to ultraviolet radiation. The mechanism of influence on phosphate-calcium metabolism, on intestinal, kidney and muscle cells is presented. The symptoms of vitamin D deficiency and ways of its correction are briefly described.

Keywords: vitamin D, ergocalciferol, cholecalciferol, calcium phosphate metabolism, medium-wave ultraviolet irradiation, vitamin D medication.

Vitamin D is a fat- soluble vitamin hormone that affects a wide range of physiological processes, including bone structure formation, immunomodulation, development of the nervous system, regulation of vascular tone and blood pressure [1]. The pool of vitamin D in the human body is formed from two sources – 20% comes in an alimentary way, 80% is synthesized in keratinocytes of the skin under the influence of ultraviolet light with a wavelength of 290-350 nm.

In the vitamin D group, the most active compounds are ergocalciferol (vitamin D2) and cholecalciferol (vitamin D3). Vitamin D coming from food sources, as a rule, is represented by two molecules[2, 3]:

– ergocalciferol (mainly from food of plant origin);

– colecalciferol (mainly from food of animal origin).

Vitamin D can be considered as a vitamin and as a hormone.

Under the influence of UV rays on the body, as a result of photoisomerization processes, vitamin D2 is formed from ergosterone, and the 7-dehydrocholesterol present in the skin turns into vitamin D3. The rays with a wavelength of 310-280 nm are the most active in this regard.

With the blood flow, it is transferred to the liver, where, after hydroxylation, it turns into 25-hydroxycholecalciferol.

As a vitamin, it affects the overall metabolism of calcium (Ca2+) and phosphate (HPO42-), maintains their plasma levels above the threshold value and increases calcium absorption in the small intestine, thus preventing the development of rickets and osteomalacia.

Calicitriol is considered as a hormone. It effects the cells of the intestine, kidneys and muscles. In the cells of the intestinal mucosa, vitamin D stimulates the synthesis of a carrier protein necessary for the transport of Ca. The effect of vitamin D on calcium phosphate metabolism and bone formation has been most well studied. In addition to vitamin D, calcium and phosphate ions, osteotropic macro- and microelements, hormones (primarily parathyroid hormone, PTH), fibroblast growth factor, tumor necrosis factor, prostaglandins and interleukins participate in this process. After the formation of a complex with a Ca-binding protein, it regulates the absorption of calcium and phosphate ions in the intestine and the formation of some organic compounds, i.e. it is a necessary component of calcium-phosphorus metabolism in the body.

Vitamin D is deposited mainly in adipose tissue. The main processes of vitamin D biotransformation occur in the skin, liver and kidneys. In the skin, under the influence of ultraviolet irradiation, vitamin D3 is formed from precursors. The rate of disappearance of the initial vitamin from the blood plasma is 19-25 hours, but when accumulated in tissues, the time of its stay in the body can be up to 6 months.

Vitamin D deficiency is connected with cardiovascular, neurological, metabolic, and oncological diseases. Moreover, for the implementation of extra-skeletal (non-calcemic) effects bigger doses of colecalciferol are required than for the manifestation of bone (calcemic) functions. In muscle tissue with vitamin D deficiency, the capture of Ca by the sarcoplasmic reticulum decreases, which is manifested by muscle weakness. The process of hormone formation is regulated by the body's need for Ca and P and is mediated by parathyroid hormone and P content in the blood.

The prescription of active metabolites of vitamin D and their analogues (alfacalcidol, calcitriol, paricalcitol) is recommended for patients with an established violation of vitamin D metabolism based on absolute and relative indications [4].

Treatment regimens of the maintenance therapy and prevention of vitamin D deficiency in children and adults have been developed and implemented in clinical practice. For the treatment and prevention of vitamin D deficiency, it is recommended to use colecalciferol in children, and in adults – colecalciferol for treatment and colecalciferol or ergocalciferol for prevention [4,5,6].

Along with pharmacological prescriptions, physical factors of rehabilitation are currently used.

There is a concept of «light starvation», or ultraviolet insufficiency. It is expressed in the predominance of the tone of the parasympathetic part of the autonomic nervous system, a decrease in the overall reactivity of the body and its immunity, the presence of vitamin D3 in the body in the required amount normalizes these processes.

In this case, for therapeutic and preventive purposes, it is recommended to use medium-wave ultraviolet irradiation. [7]

When using physical means of rehabilitation general and local methods of ultraviolet irradiation are applied. Three schemes of general medium-wave ultraviolet irradiation in suberythemic gradually increasing doses have been adopted: basic, accelerated and delayed. The duration of the irradiation course is 15-25 days.

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PSYCHOLOGICAL CHARACTERISTICS OF MOTHERS WITH CHILDREN WITH FREQUENT RESPIRATORY DISEASES

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Abstract. Rehabilitation of children with frequent respiratory diseases should be carried out within the framework of an interdisciplinary approach (according to WHO recommendations). In addition to biological and genetic risk factors for the development of the disease, it is necessary to study the social environment and psychological features of intra-family interaction. The study of anxiety in women with children with frequent respiratory diseases, starting from the period of pregnancy («Pregnant woman's relationship Test», I.V. Dobryakov), showed its high level, which does not decrease in the subsequent years of the child's development. The high correlation of the level of anxiety in women with a higher frequency, severity and duration of acute respiratory diseases in children dictates the need for psychological correction of the mother's condition, which is possible with the implementation of an integrated approach to the rehabilitation of frequently ill children.

Keywords: maternal anxiety, frequently ill children, rehabilitation

Along with the study of biological, genetic risk factors for the development of frequent respiratory diseases in young children, socio-psychological risk factors that determine the features of intra-family interaction are important. The study of the family as a whole, reflecting an interdisciplinary approach to the treatment and rehabilitation of children with frequent respiratory diseases, is an urgent task, the solution of which is associated with the preparation and implementation of an interdisciplinary wellness program for children with frequent respiratory diseases, with the inclusion in the program of psychological assistance to parents (mothers). The psychology of motherhood plays a decisive role in the formation of a child's health. The mother's parental attitudes reflect a woman's willingness to act to realize her ideas about the health of children and her requirements for the child. The expectations and assumptions of the mother: what the child should be, how it should develop, what qualities it should have, do not always correspond to the existing characteristics of the child. In the behavior and judgments of the mother, various components can be distinguished: behavioral, evaluative, cognitive, value-related, related to the perception of your child and yourself as a parent.

Objective

To study the psychological characteristics of mothers with children with frequent respiratory diseases in the dynamics of observation.

Materials and methods

Study of the psychological component of the gestational dominant (I.V.Dobryakov, «Test of pregnant woman's relationships») in women (n=36) with preschool children (3-6 years old) with frequent respiratory diseases, anamnestic data of the biological history of frequently ill children (n=42), Statistica 10.

Results and discussion

The study of the psychological component of the gestational dominant of mothers with children with frequent respiratory morbidity showed a high level of anxiety in 69% of women (n=29), correlating with the frequency of episodes of acute respiratory diseases in children (r=0.7). Mothers of «truly» frequently ill children (episodes of acute respiratory diseases more than 8 times a year), noted a history of anxiety for more than three years in 63% of cases (n=23). More than half of the highly anxious women (n=15, 65%) received courses of drug treatment during the last year (phytopreparations). Mothers of rarely ill children had lower rates of anxiety compared to mothers of «truly» frequently ill children (p=0.001). The level of anxiety in women was higher with a longer duration of the disease (p=0.001), in the presence of complications (p=0.001). From anamnestic data: asphyxia in childbirth (r=0.4), early transition to artificial feeding (r=0.6) correlated with a high level of anxiety. An interdisciplinary approach to the rehabilitation of children with frequent respiratory diseases involves the control and psychological correction of a high level of maternal anxiety.

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INTERDISCIPLINARY APPROACH TO THE ADAPTATION OF STUDENTS AT THE UNIVERSITY

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Abstract. The adaptation of first–year students to higher education is a complex process associated with significant changes in life. First-year students with a low level of neuropsychiatric stability are difficult to adapt. Among those surveyed under the Forecast program, a third of students have a borderline indicator indicating difficult adaptation. One of the most important tasks of the psychological service of the university is the diagnosis of adaptation disorders, identification of personal problems of students. The psychotherapeutic program, in which psychologists, psychotherapists, psychiatrists, teachers participate, includes diagnostics, psychocorrection, psychohygiena. The repeated study shows a positive trend at the end of the academic year (p=0.01).

Keywords: first-year students, adaptation, neuropsychic stability

Adaptation to the university environment is a mandatory link in the student's development of new knowledge, competencies, and new skills. Analysis of how the process of adaptation to an educational institution takes place is important from the beginning of the academic year. The initial period of study at the university is difficult for many students. First-year students are introduced to new approaches in education, different from secondary school education. It is important to quickly include former students in the educational process, their ability to adhere to the new conditions of education in higher education. Many factors are also important for effective adaptation: the age of a first-year student, the remoteness of the parents' place of residence, social conditions, nationality, psychological characteristics, the formation of which occurred during childhood under the influence of the microsocial environment – the child's family, then the teenager. It is known that students who come from another region are forced to significantly change their usual way of life, language, especially.

Objective

To study the level of neuropsychic stability of first-year students at the beginning and at the end of the academic year. To analyze the effectiveness of the psychocorrection program used for students with a low level of adaptation.

Materials and methods

The study of the neuropsychic stability of first-year students (n=293) in the dynamics of learning (at the beginning of the academic year and at the end of the academic year), using the program «Forecast». Analysis of the results of the effectiveness of the program of psychocorrection and psychotherapy: «Adaptation of first-year students to higher school», developed by specialists of the Center for psychological adaptation of the Medical Academy. Statistica 10.0.

Results and discussion

Among the examined first-year students, a high, good and satisfactory level of neuropsychiatric stability was observed in 215 people (73.3%). The observation group consisted of 78 people (26.6%), whose level of neuropsychiatric stability was close to the borderline indicators, the lowest indicators were 18% (14). The reduced mood background, which was noted by 63% of first-year students with unsatisfactory adaptation, was combined with a lack of success in educational activities (r=0.7), a lack of desire to study further (r=0.6), the formation of psychosomatic reactions (r=0.8) and diseases (r=0.5). More than 2/3 of all students with borderline adaptation indicators noted frequent headaches (several times a week), weakness and drowsiness, symptoms from the gastrointestinal tract, which

distinguished students of this group from freshmen with satisfactory and good adaptation (p=0.01). Psychocorrective individual and group work with students during the year was effective in 83% of cases (62). Comparing the results of repeated testing under the «Forecast» program, we can note a positive trend at the end of the academic year (p=0.01). Students with whom individual and group psychocorrection and psychotherapy were conducted showed satisfactory and good indicators of neuropsychiatric stability. Therefore, the study of neuropsychological stability at the beginning of the academic year is an important stage in identifying students with impaired adaptation.

The use of a psychocorrective program throughout the academic year, compiled in interdisciplinary interaction by psychologists, teachers, psychotherapists and psychiatrists and used both in individual and group work gives a significant effect (p=0.01), which is confirmed by a study in the dynamics of neuropsychiatric stability (at the end of the academic year).

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REPERFUSION THERAPY IN THE TREATMENT OF ISCHEMIC STROKE

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Abstract. The paper presents the results of a retrospective analysis of the case histories of 75 patients who were treated at the Amur Regional Clinical Hospital (ARCH) with a diagnosis of ischemic stroke (IS), who received complex treatment reperfusion therapy by intravenous systemic thrombolysis.

Keywords: systemic intravenous thrombolysis, ischemic stroke, reperfusion.

Stroke is one of the major health problems in the adult population and is the third leading cause of death and disability in developed countries. In Russia this problem is particularly acute. Mortality from ischemic stroke is 175 cases per 100,000 population per year. According to the National Stroke Association (NSA) 31% of stroke patients need special care, 20% cannot walk independently and only 8% can return to their previous full-fledged life [1]. In the treatment of stroke, it is customary to define basic (undifferentiated) therapy, which does not depends on the nature of the stroke (ischemic or hemorrhagic), and differentiated therapy, determined by the nature of the stroke. Basic stroke therapy is aimed at maintaining the basic vital functions of the body and includes providing adequate breathing, maintenance of blood circulation, control and correction of water and electrolyte disorders, reduction of cerebral edema, prevention and treatment of pneumonia. Specific treatment for ischemic stroke is reperfusion therapy. For this purpose, in the first hours of the disease (the therapeutic window is up to 4.5 hours), thrombolytic therapy is carried out aimed at restoring blood flow in the affected vessel. This makes it possible to prevent the development of irreversible brain damage or reduce its volume, i.e. minimize the severity of residual neurological deficit [2, 3, 4].

The aim of the study was to evaluate the effectiveness of thrombolytic therapy (TLT) in patients with ischemic stroke (IS).

Materials and methods

A retrospective analysis of 75 case histories of patients (49 men, 26 women) who were hospitalized

at the ARCH in 2022, department of neurology for patients with acute cerebrovascular accident (ACV) with a diagnosis of IS of various etiologies, who underwent TLT.

In total, in 2022, 1,034 patients with stroke were hospitalized at ARCH, among which 811 were with IS of various etiologies. Among these patients, 93 were hospitalized within the time interval of 4.5 hours from the onset of the development of neurological symptoms, but due to the combination of contraindications, TLT was not performed in 18 patients. The mean age of the patients was 63 ± 8.3 years. The average time from the onset of neurological symptoms to TLT was 190 minutes. The average assessment of the severity of IS at admission was carried out according to the NIHSS (National Institutes of Health Stroke Scale) and was 12 ± 4.1 points.

The method of systemic TLT included: the use of a thrombolytic agent - actilyse at a dose of 0.9 mg/kg with a maximum dose of 90 mg., 10% of the dose was administered as an intravenous bolus over 1 minute, 90% of the dose as an intravenous drip over one hour.

Results and discussion

Treatment outcomes were assessed on the Rankin scale by the end of inpatient treatment (Rankin score no more than 2 points), which is an indicator of independence in the patient's daily life. This result was achieved in 62.7% of patients, of which 72.3% received TLT within 3 hours from the onset of neurological symptoms. Also, during TLT, the presence of complications was assessed, in particular, the formation of a focus of hemorrhagic transformation. This kind of complication occurred in 7 patients, 6 of whom received TLT within the period from 3 to 4.5 hours from the onset of neurological symptoms, 4 patients developed asymptomatic hemorrhagic transformation.

Summing up the results of the study, it can be said that TLT in patients with IS is an effective and safe method of treatment with a good functional outcome, especially if TLT was performed in the earliest period. In general, the performance indicators for TLT in IS at ARCH are higher than the average in Russia, and are comparable with those of major international studies.

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EXHALED AIR ANALYSIS AS A DIAGNOSTIC METHOD FOR COMMUNITY-ACQUIRED PNEUMONIA AND PULMONARY TUBERCULOSIS

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Abstract. In clinical practice, physicians often face questions of differential diagnosis within a group of bronchopulmonary diseases. The similarity and recurrence of symptoms in respiratory diseases often leads to an incorrect diagnosis. This problem is especially relevant in cases where it is impossible to apply generally accepted methods of examination, for example, when examining children, pregnant women or extremely severe patients.

Keywords: community-acquired pneumonia, pulmonary, exhaled air analysis

A great deal of attention is now being paid to the development of non-invasive methods for the diagnosis of lung diseases. In particular, the composition of the air exhaled by a person and the possibility of using its analysis to diagnose respiratory pathology are actively studied. This is a new, relatively simple, non-invasive method not only for diagnosis, but also for monitoring the course of diseases. Analysis of the air exhaled by a person allows differentiation within a group of symptoms of similar diseases, for example, such as pneumonia and the infiltrative form of pulmonary tuberculosis.

Objective

The aim of the work is to carry out a comparative analysis of exhaled air of patients with pneumonia, pulmonary tuberculosis and healthy subjects using optical-acoustic spectroscopy as one of the most sensitive methods of gas analysis.

Materials and methods

The analysis of exhaled air was carried out on

an in-resonator optical-acoustic gas analyzer ILPA-1 based on a CO2 laser (manufactured by ElSiEsFasility Management CJSC, Novosibirsk) [1]. This device has a good time resolution, sufficient selectivity, allows you to most accurately record the absorption spectrum of gas samples in the wavelength range 9.2-10.8 μm. And it uses exhaled air directly, which does not require additional preparation.

50 people were examined, of which 20 were healthy, 10 patients with pulmonary tuberculosis and 20 with community-acquired pneumonia (CAP), whose age ranged from 18 to 65 years. All of them, regardless of gender and age, were divided into three groups: healthy faces, patients with pulmonary tuberculosis and CAP. To date, the available literature does not provide information on the sexual or age characteristics of the air exhaled by a person. Exhaled air samples were collected in the morning on an empty stomach, after rinsing with boiled water or saline. Smoking factor was excluded at least 6 hours before the study. Samples were collected in a 10 mL sterile glass tube with a dense sterile cotton-gauze stopper. The patient performed 1-2 calm exhalations into this tube. All patients were sampled under the same conditions. Air exhaled by a person is a complex gas mixture in which the release of individual gases and their comparison with specific markers of a particular disease is a rather difficult task [3]. In this situation, generalized criteria take an important role, which are based on the totality of many data and are sensitive even to small changes in the state of the object under study.

Results and discussion

For each study participant, mean values of integral estimates 1 and 2 in the two ranges used, respectively, were calculated based on 15 scans of the exhaled air spectrum. The calculations performed showed that the values of integral estimates do not obey the law of normal distribution, therefore, the median and quartiles were calculated (25% and 75%, respectively). Integral estimates of exhaled air absorption spectra of healthy people differ from integral estimates of patients with various bronchopulmonary diseases (in particular, CAP and tuberculosis) in both the first and second ranges used. Comparative analysis of the presented data showed that both the first and second spectrum bands can be used to diagnose community-acquired pneumonia and pulmonary tuberculosis.

To perform differential analysis between community-acquired pneumonia and pulmonary tuberculosis, threshold values of integral estimates were calculated, sensitivity and specificity of the method were assessed. The ROC analysis was used in the calculations, which was carried out only by the value of integral estimates 1.

Thus, if the patient has integral scores of 1 more than 1.42, then with an accuracy of 85%, he can be suspected of having pneumonia. Whereas if the value of integral estimates 1 is more than 2.26, then in 95% he will be diagnosed with pulmonary tuberculosis. Threshold values of integral assessments 1 indicating the sensitivity, specificity and accuracy of the method when comparing healthy individuals and patients with community-acquired pneumonia and pulmonary tuberculosis [4].

Conclusions

Differences in exhaled air absorption spectra between patients with CAP, pulmonary tuberculosis and healthy individuals were determined. Based on the obtained data, threshold values of integral estimates of the exhaled air absorption spectrum are calculated, which make it possible to carry out screening diagnostics in examined persons. A diagnostic model has been compiled that allows for primary screening in order to detect a number of diseases of the bronchopulmonary system (in particular, CAP, tuberculosis).

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APPROACHES TO DIAGNOSIS OF PULMONARY TUBERCULOSIS TAKING INTO ACCOUNT COMORBIDITY AT THE CURRENT STAGE

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Abstract. A retrospective analysis of patient records sent to the TB dispensary from other medical institutions to confirm the diagnosis of tuberculosis was carried out. Factors were identified that make it difficult to recognize pulmonary tuberculosis at the primary stage of medical care, the main possible causes of late and late diagnosis of tuberculosis in the general treatment network were analyzed.

Keywords: pulmonary tuberculosis, differential diagnosis

Objective

The aim of the work is to conduct a comparative analysis of the diagnosis of tuberculosis with at modern stages.

The issues of diagnosis of respiratory tuberculosis in therapeutic hospitals are relevant for modern pulmonology due to the high prevalence of the disease, possible difficulties in differential diagnosis. So, over the past 10 years, about half of patients with tuberculosis are detected by access to various medical institutions. These patients are hospitalized in emergency care mainly with a diagnosis of community-acquired pneumonia [3]. The main reasons for the untimely diagnosis of tuberculosis are: underestimation of the condition by patients and late contact with a doctor, lack of a standard approach to outpatient selection of diagnostic actions [2].

Materials and methods

An analysis of 60 patient case histories sent to the TB dispensary from other medical institutions to confirm the diagnosis of tuberculosis was carried out.

Results and discussion

A retrospective analysis of the case histories of patients with various clinical forms of tuberculosis indicates that the main reasons for the untimely and late diagnosis of tuberculosis were low phthisiatic alertness, underestimation of clinical and anamnestic, laboratory and radiological data, possible «masks» of the tuberculosis process.

Of the background conditions and comorbidities, chronic obstructive pulmonary disease with signs of ventilation disorders, coronary artery disease, arterial hypertension were more often found, creating the problem of comorbidity in the observed patients. It should be noted that, according to literature data, rates of respiratory tuberculosis among patients with alcoholism are many times higher than among the general population. Phthisiatic alertness should be shown in patients receiving systemic, especially with a history of previous TB or radiological signs of past TB infection. The clinical picture of the tuberculosis process in the lungs may be hidden under the clinic of background or concomitant disease. The bilateral process in the lungs was noted in almost half (47%) of the observed patients. Infiltrative tuberculosis is characterized by a predominant lesion of the apical and sixth segments. With lower lobe localization, tuberculosis occurs more often under the «mask» of pneumonia. When studying the catamnesis of patients transferred to the TB dispensary, it was noted that in most cases tuberculosis was confirmed, while some of them had a relapse of tuberculosis. The structure of clinical forms was dominated by: infiltrative, disseminated and fibrous-cavernous. It is also worth noting the low adherence of patients to treatment, non-compliance with the regimen and the timing of therapy. Of the patients with a confirmed diagnosis of tuberculosis, only 42% completed treatment, and some were discharged for violation of the regime or due to refusal to continue treatment. Among the patients who did not complete the full course of therapy, there were socially unadjusted persons, including non-working people of working age, suffering from alcoholism, staying in places of detention. Pneumonia was diagnosed in the group of patients with an unconfirmed diagnosis of tuberculosis after differential diagnosis, additional methods of investigation, observation over time, and the positive effect of the therapy. The nature of the course of the infectious nonspecific process can also be influenced by the frequency and nature of concomitant or background pathology. Generally, the presence of chronic obstructive pulmonary disease, chronic simple bronchitis, and alcohol abuse can make differential diagnostic search difficult, masking the clinical picture of pneumonia. Based on the analysis of the frequency of discrepancy between the initial and the diagnosis specified in the anti-tuberculosis institution in the differential diagnosis of cavity lung lesions, it was found that the highest frequency of discrepancy occurred in destructive pneumonia, mycobacteriosis of the lungs and lung cancer - 85.7%, 100.0% and

100.0%, respectively, against 60.8% of observations in destructive pulmonary tuberculosis ($p < 0.05$) [1]. It is determined that the leading factors that increase the likelihood of tuberculosis in a patient with respiratory symptoms are: male sex, lack of constant work, alcohol abuse, anemia, lung destruction. It increases the risk of tuberculosis incidence of alcohol abuse (61%), smoking (69%), the presence of respiratory pathology (66%) and the gastrointestinal tract (40%), which is consistent with the data of other researchers [3].

Conclusions

Thus, a similar clinical and radiological picture of inflammatory lung diseases of a specific and non-specific nature, limited possibilities of using invasive methods of examination of patients in an outpatient setting, pathomorphosis of tuberculosis and non-specific diseases makes it difficult to recognize tuberculosis at the primary stage of medical care.

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ADVANTAGES OF MODELING OXIDATIVE STRESS BY EXPOSURE TO ULTRAVIOLET RAYS

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Abstract. The article presents the results of testing the model of exposure to ultraviolet rays in comparison with the previously proven model of the effect of high temperatures on a warm-blooded organism. For the experiment, 4 groups of laboratory animals were formed, 30-36 rats each. The advantages of the model of formation of oxidative stress by ultraviolet irradiation are confirmed by a more pronounced accumulation of peroxidation products in the blood plasma and liver tissue of rats in comparison with animals subjected to hyperthermia.

Keywords: ultraviolet irradiation, hyperthermia, oxidative stress, peroxidation products, rats.

Previous studies at the Amur Medical Academy showed that an integral component of the pathogenesis of the stress reaction is the activation of lipid peroxidation processes with the formation of oxidative stress [1, 6, 8]. Therefore, the search for effective antioxidants and/or the establishment of antioxidant properties in known drugs remains an important direction in experimental pharmacology [2-5, 10]. Naturally, the pharmacologist faces the question of choosing the optimal model for the formation of oxidative stress [7, 9]. Comparative assessment of the approbation of the model of exposure to ultraviolet rays in comparison with the previously proven model of the effect of high temperatures on a warm-blooded organism, in our opinion, is of interest.

Objective

Comparative evaluation of the effectiveness of modeling oxidative stress by exposure to ultraviolet rays and high temperatures.

Materials and methods

Modeling of oxidative stress was carried out by exposure to ultraviolet rays daily for 7, 14, 21 days (exposure time - 3 minutes) in an ultraviolet chamber (control group 2, n = 35). As a comparison model, we used the model of oxidative stress formation by exposure to high temperatures, which was carried out daily for 7, 14, 21 days (exposure duration - 45 minutes) (control group 1, n = 36). The control was 2 intact groups, each with 30 animals under standard vivarium conditions. Animals were slaughtered by decapitation on days 7, 14, 21 of the experiment, 10-12 rats from intact and control groups. The intensity of lipid peroxidation processes was assessed by examining the content of diene conjugates, lipid hydroperoxides, and malondialdehyde in the blood plasma of animals according to the methods described earlier [1, 5, 7, 9]. Statistical processing of the results was carried out using the program Statistica v.10.0. In all

evaluation procedures, differences were considered statistically significant at $p<0.05$.

Results and discussion

The results of the study showed that exposure to ultraviolet rays and high temperatures has a pro-oxidant effect on a warm-blooded organism: peroxidation products accumulate in blood plasma relative to control (intact rats), in particular, diene conjugates by 24% (day 7), 26% (day 14) , 31% (21 days of the experiment) under conditions of hyperthermia, by 48%, 43%, 42%, respectively, under ultraviolet irradiation; lipid hydroperoxides - by 23%, 26%, 16% by the end of the first, second and third weeks of the experiment against the background of thermal exposure, by 53%, 48%, 40%, respectively, against the background of ultraviolet irradiation; malondialdehyde - by 39% (day 7), 39% (day 14), 32% (day 21 of the experiment) under hyperthermia conditions, by 61%, 48%, 40%, respectively, under ultraviolet irradiation.

Thus, the results of the experiment confirm the formation of oxidative stress under conditions of exposure to high temperatures and ultraviolet rays, and an earlier and more pronounced shift in the balance to the prooxidant side is recorded against the background of ultraviolet irradiation (already by the end of the first week of the experiment), which indicates the advantages of this model. reason to recommend ultraviolet irradiation of laboratory animals if it is necessary to create an experimental model of oxidative stress in a shorter time.

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POSSIBILITIES OF PHYTOCORRECTION OF NOISE LOAD ON THE ORGANISM IN THE EXPERIMENT

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Abstract. The possibility of phytocorrection of peroxidation processes under noise load on a warm-blooded organism by introducing an infusion of ivy budra grass (Glechoma hederacea L.) has been studied. It has been established that exposure to noise on laboratory animals is accompanied by the accumulation of lipid peroxidation products of biomembranes in blood plasma. The introduction of a liquid dosage form based on boudra under conditions of noise exposure prevents the formation of oxidative stress in a warm-blooded organism.

Keywords: noise load, Glechoma hederacea, peroxidation processes, products of lipid peroxidation.

The intensity of noise exposure to humans tends to increase annually due to the rapid pace of scientific and technological progress [3-5, 10, 11]. It is known that excessive acoustic load negatively affects not only the organ of hearing, but also through a shift in the balance in the homeostasis system, it negatively affects the cardiovascular, central and peripheral nervous systems, etc. [6]. Our previous studies have shown that the impact of noise on the body of laboratory animals induces lipid peroxidation processes against the background of a decrease in the activity of the antioxidant system. Naturally, this fact became the basis for the search for pharmacocorrectors of the above changes, in particular, among representatives of the Lamiaceae family, the presence of antioxidant activity under noise exposure was studied in the plant ivy bud (Glechoma hederacea) [8].

Objective

Study of the possibility of phytocorrection of lipid peroxidation processes under conditions of noise exposure by introducing an infusion of ivy-shaped budra in the experiment.

Materials and methods

Noise exposure was created by feeding a pre-recorded and reproduced sound (the sound of a running motorcycle engine) through the speakers with a sound pressure level of 95-105 dB. The activity of budra ivy infusion, prepared according to the generally accepted method [1], was studied on outbred male rats, which were divided into 3 groups of 30 animals each: in the intact group (1), the rats were kept under standard vivarium conditions; in the control group (2) the animals were exposed to noise daily for 60 minutes for 14 days; in the experimental group (3), animals were exposed to noise daily for 60 minutes for 14 days against the background of oral administration of budra herb infusion (5 ml/kg). After decapitation of rats (7 and 14 days of the experiment), the concentration of diene conjugates, lipid hydroperoxides, and malondialdehyde was determined in blood plasma according to the methods described in our previously published works [2, 7, 9]. Statistical processing of the results was carried out using «Statistica v.10.0» and Student's t-test, the critical significance level was taken equal to 0.05.

Results and discussion

The results of the experiment made it possible to state a statistically significant increase in the intensity of peroxidation processes under noise exposure: the concentration of diene conjugates increased by 42% compared with intact animals by the end of the first week of the experiment, by 45% by the end of the second; lipid hydroperoxides - by 47% (7, 14 days); malondialdehyde - by 50% and 47%, respectively. Phytocorrection of peroxidation processes under noise load by introducing boudra infusion made it possible to identify a trend towards positive dynamics on day 7 and statistically significantly reduced the concentration of lipid peroxidation products on day 14: the level of diene conjugates was lower than in the control by 19%, lipid hydroperoxides - by 16%, malondialdehyde - by 23%.

Thus, the use of boudra infusion against the background of noise exposure prevents the accumulation of primary and secondary peroxidation products, indicating the possibility of noise load phytocorrection.

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PRECLINICAL STUDY OF ANIS LOFANT INFUSION UNDER THE EXPOSURE OF ULTRAVIOLET IRRADIATION TO A WARM-BLOODED ORGANISM

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Abstract. The possibility of correcting peroxidation processes induced by ultraviolet irradiation by introducing infusion of anise (Lophanthus anisatus) was experimentally studied. It has been established that anise lofant infusion has an antioxidant effect. This is confirmed by a decrease in the concentration of lipid peroxidation products in the blood plasma of rats in comparison with similar parameters in the control.

Keywords: infusion, Lophanthus anisatus, lipid peroxidation, experiment, rats.

Currently, pharmacologists of the Amur Medical Academy are focusing their research on medicinal plants of the Lamiaceae family, in particular, anise lofanthus (Lophanthus anisatus). A wide range of biologically active substances in the chemical composition of the plant and a sufficient distribution area in the Amur region were the basis for studying the range of pharmacological activity of anise lofant [3-5, 8, 11].

Objective

Study of the activity of anise infusion under the influence of ultraviolet irradiation in the experiment.

Materials and methods

The activity of anise lofant prepared according to the generally accepted method [1] was studied on outbred male rats, which were divided into 3 groups of 30 animals each: in the intact group (1), the rats were kept under standard vivarium conditions; in the control group (2), the animals were exposed to ultraviolet radiation daily for 3 minutes for 14 days [6]; in the experimental group (3), the animals were exposed to ultraviolet irradiation daily for 3 minutes for 14 days against the background of oral administration of an infusion of lofant grass (5 ml/kg). After decapitation of rats (7 and 14 days of the experiment), the concentration of diene conjugates, lipid hydroperoxides, and malondialdehyde was determined in blood plasma according to the methods described in our previously published works [2, 7, 9, 10]. Statistical processing of the results was carried out using «Statistica v.10.0». Differences in quantitative indicators between groups were analyzed using Student's t-test, the critical significance level was taken equal to 0.05.

Results and discussion

The results of the experiment made it possible to register statistically significant changes in the values of indicators in the prooxidant system by the end of the first and second weeks of the experiment when exposed to ultraviolet rays. In the blood plasma of irradiated rats, the content of diene conjugates increased by 50% (day 7) and 62% (day 14), lipid hydroperoxides - by 62% and 54%, respectively, malondialdehyde - by 41% and 48%. The use of tincture under ultraviolet irradiation prevented the accumulation of lipid peroxidation products by the end of the second week of the experiment, which was reflected in a decrease in the concentration of diene conjugates by 22%, lipid hydroperoxides, by 28%, and malondialdehyde, by 24%. By the end of the first week of the experiment, a trend towards positive changes was registered, statistically significant only for lipid hydroperoxides. This confirms the insufficiency of the seven-day correction course with the introduction of herbal remedies. In general, the results of the study allow us to state the presence of antioxidant activity in the anise lofant, which is associated with a complex of biologically active substances, primarily flavonoids and vitamins, in the chemical composition of the plant.

Thus, the presence of antioxidant activity in anise tincture under ultraviolet irradiation suggests further preclinical studies in other model systems in order to expand the evidence base for the effectiveness of the herbal remedy.

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EPIDENIOLOGICAL AND CLINICAL PICTURE OF AMYOTROPHIC LATERAL SCLEROSIS IN THE AMUR REGION

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Abstract. Case histories of 54 patients diagnosed with amyotrophic lateral sclerosis (ALS) were analyzed. The morbidity level of urban and rural population, the age of the disease onset, as well as the origin features and variants of its course were determined.

Keywords: amyotrophic lateral sclerosis, morbidity, course variants.

Amyotrophic lateral sclerosis (ALS) is a neurodegenerative disorder due to upper and lower motor neuron degeneration which is inevitably progressive and fatal [1].

Objective: to determine some epidemiological and clinical features of ALS in the Amur Region.

Materials and methods

Case histories of 54 patients with determined ALS diagnosis (23 women and 31 men) being under the treatment in in-patient department of the Amur Regional Clinical Hospital from 2012 to 2022 were analyzed. The diagnosis was made according to diagnostic criteria of ALS based on anamnesis, clinical examination, laboratory data, the results of electrophysiological, CT/MRI of the brain as well as cervical and lumbar parts of the spinal cord, and the exclusion of other diseases with similar symptoms [1].

Results and discussion

ALS epidemiology. The ALS morbidity in the Amur Region ranges from 0.5 to 1.04 cases per 100000 people per year. It corresponds with the incidence of ALS in Europe and Central Asia: from 0.2 to 2.4 per 100000 populations [1]. There are 67% of cases (36 people) in cities and 33% of cases (18 people) in rural areas. The ratio is 2:1 respectively. Considering the part of urban and rural population in the region (68.8% and 31.2%), it can be concluded that the disease occurs with the same frequency among urban and rural residents of the Amur Region.

The average age of ALS onset was 59.37±1.33 years (from 28 to 83 years), in women – 60.9±1.42 years, in men – 58.20±1.38 years. Age-dependent incidence in the Amur Region is observed from 45 to 75 years (51 people). Besides, the morbidity is more often at the age of 55 to 75 years. Only 2 patients fell ill up to 45 years, and one patient – after 75 years. At the age up to 55 years men were ill more often (75%, 9 people) than women (25%, 3 people). The ratio of men and women is 3:1. In the age group from 55 to 75 years the incidence rates are equalized. There were 51% (20 people) of diseased men and 49% (19 people) of women. The ratio of men and women is 1:1.05.

According to the literature, age-dependent incidence increases up to the age of 80, with the highest morbidity from 55 to 75 years. Men fell ill more often [1,5].

Clinical forms and variants of ALS. Depending on the primary level of the lesion the following ALS onsets are distinguished: bulbar, cervical, and lumbar. Some authors also determine thoracic, diffusive and respiratory debuts. According to the severity of central (CMN) and peripheral motoneuron (PMN) subdivisions into ALS variants are used: classic – uniform lesion of both neurons, segmental-nuclear – predominant lesion of PMN, pyramidal – predominant lesion of CMN [1]. The results of ALS variants study are presented in the table.

The frequency of ALS variants at different debuts

Debut	Variant			
	total % / people	classic % / people	segmental-nuclear % / people	pyramidal % / people
Bulbar	20.4% / 11	9% / 1.	55% / 6	36% / 4
Cervical	20.4% / 11.	45.5% / 5.	45.5% / 5.	9% / 1
Lumbar	50% / 27	37% / 10	48% / 13	15% / 4.
Diffusive	9.2% / 5			

Thus, the lumbar debut is the most frequent in our patients. Bulbar and cervical onsets occur in the same percentage of cases, while the rarest one is diffusive. Segmental-nuclear variant is seen more often with any debut, especially with a lumbar one; meanwhile the pyramidal variant is rarer and is

observed only in 9 patients.

There is a clear predominance of men in the lumbar debut of ALS – 70% (19 people) and 30% (8 people) respectively. The cervical debut is more often diagnosed in women – 64% (7 people) and 36% (4 people) respectively. In other variants of the ALS onsets there were no significant differences in incidence by gender.

According to the literature, the service-thoracic form of ALS is more often recorded – 32-44% of cases. The lumbar-sacral form occurs in 32-40% of cases [2,3,4]. The frequency of other forms in our observations does not differ from the literal data.

Conclusion: The revealed epidemiological features: in general, the incidence rate, the onset age of the disease, and the predominant incidence of men coordinates with the literal data. As for clinical features it is possible to note the prevalence of patients with the lumbar debut of the disease and rare with the cervical one, and there is a vivid predominance of women in this form. With various forms of ALS debuts among our patients, the segmental-nuclear variant of the course of the disease is more common.

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HYPERTENSION IN NEPHROLOGICAL PATIENTS

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Abstract. Hypertension (AH) is both the cause and the consequence of chronic kidney disease (CKD). The article discusses the main causes of these syndromes in patients of the nephrology department of the Amur Regional Clinical Hospital. The incidence of CKD by stage among patients by nosology, their gender and age characteristics were analyzed. After analyzing the clinical and laboratory data, we can conclude that primary health care doctors need to pay attention to the decrease in the specific weight of the urine of patients during examination, including during preventive examinations, since this is an important sign of latent renal failure. Patients with low urine specific gravity need to maximize nephroprotective therapy to avoid progression of CKD and AH.

Keywords: chronic kidney disease, arterial hypertension, glomerular filtration rate, urine specific gravity

AH is a major modifiable risk factor for cardiovascular disease, stroke, and renal failure. Long-term and stable AH accelerates the progression of kidney disease to the end stage, and a progressive decrease in kidney function, on the contrary, contributes to an increase in blood pressure and a deterioration in its control. CKD is both a common cause of AH and a complication of uncontrolled AH. The interaction between AH and CKD is complex and increases the risk of adverse cardiovascular and cerebrovascular outcomes. The relevance of this problem is associated with an increase in the number of patients with AH and CKD worldwide and their high mortality. The bidirectional nature of the relationship between AH and CKD makes it promising to study these two conditions in order to slow down the rate of progression of renal and cardiac dysfunctions [1, 2].

Objective

Give clinical characteristics to patients with a combination of hypertension and CKD syndromes in a nephrological hospital.

Materials and methods

A retrospective analysis of 47 disease histories of patients with AH and CKD for March 2021 who were being treated in the nephrology department of the Amur Regional Clinical Hospital was carried out.

Results and discussion

The age composition of patients with CKD and AH was as follows: 18-29 years old - 3 patients (6%), namely: 1 man and 2 women, 30-59 years old - 20 patients (43%), namely: 14 women and 6 men, over 60 years old - 24 patients (51%), namely: 9 women and 15 men. The mean age of the patients was 56

years, which is within the able-bodied range. Of the 47 patients with CKD and AH, the number of men was 22 (47%), women - 25 (53%). Although in the Russian population, the incidence of AH, excluding CKD, prevails among men. Perhaps the prevalence of female persons in our study is explained by the fact that 5 people were with systemic lupus erythematosus, which is considered a «female» disease. In terms of the incidence of nosological forms, hospitalized patients with CKD and AH had the following diseases: essential AH - 17 people (36%), namely: 10 people had essential AH 3 stages and 7 people essential AH 2 stages; diabetes mellitus (DM) type 2 - 11 people (23%); chronic tubulointerstitial nephritis - 4 people (8%); autosomal dominant polycystic disease of adults, systemic lupus erythematosus, chronic glomerulonephritis - 5 people each (11%). Patients with essential AH and DM dominated, just these two nosology's are the main «providers» of patients for renal replacement therapy according to statistics. Stage CKD in the study patients occurred: stage 1 - in 4 people (8%), stage 2 - 5 people (11%), stage 3 - 16 people (34%), stage 4 - 14 people (30%), stage 5 - 8 people (17%). Mean age of patients was older in groups where CKD stage was higher. In all patients, the specific gravity of urine was reduced, the average specific gravity of urine was 1009, while the norm for the morning portion of urine was at least 1018. Increased protein content in urine was recorded in 38% of patients Increased creatinine levels were observed in 94% of patients. The incidence of reduced glomerular filtration rate was 90% of patients. During the analysis of the therapy of patients with CKD and AH, it was found that of the antihypertensive drugs used during the treatment in the hospital, calcium channel blockers prevailed, 44 patients (94%) took them. Combined antihypertensive therapy included angiotensin-converting enzyme inhibitors in 81% of cases, the remaining patients, if there were no contraindications, received sartans. Thus, the combination of AH and CKD syndromes was more common in patients with essential AH (36%) and type 2 DM (23%). Among the studied, there was a slight predominance of women (53%), the predominance of persons over 60 years of age was practically not observed (51%). Among the subjects, CKD stage 3 (34%) and stage 4 (30%) were more frequently detected. All patients had decreased urine specific gravity. Therefore, primary care physicians need to pay attention to the decrease in the urine specific gravity of patients during examination, including during preventive examinations, since this is an important sign of latent renal failure. Patients with low urine specific gravity need to maximize nephroprotective therapy to avoid progression of CKD and AH.

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BODY COMPOSITION AND NUTRITIONAL STATUS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE WITH COMPONENTS OF METABOLIC SYNDROME

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Abstract. The aim of the study was to study the body composition and nutritional status in the comorbid course of chronic obstructive pulmonary disease (COPD) and its relationship with biomarkers of adipose tissue. 78 patients with isolated and comorbid COPD were examined. The results of the conducted bioimpedance measurement indicate significant changes in the body composition and nutritional status in the comorbid course of COPD in the form of deterioration of protein metabolism and a decrease in the severity of skeletal muscles, aggravating the course and progression of this combined pathology. The results of the study showed a high incidence of vitamin D 25 (OH) deficiency in patients with comorbid COPD. The content of leptin and resistin increased compared to the isolated course of COPD.

Keywords: body composition, vitamin D 25 (OH), leptin.

Abdominal obesity is currently a chronic combined pathology in which the amount of adipose tissue increases and adipocyte dysfunction develops, leading to the development of metabolic disorders. The prevalence of obesity in patients with COPD according to studies varies from 10 to 50% [1, 2, 3]. To date, the nutritional status is a set of clinical, antrometric and laboratory indicators

characterizing the quantitative ratio of the patient's muscle and fat mass [2, 3]. It was found that despite the higher risk of developing metabolic syndrome in COPD patients compared to patients who do not suffer from this disease, only obesity is a component associated with the degree of bronchial obstruction [2]. The study of the compositional composition of the body and nutritional status in the comorbid course of COPD associated with the components of the metabolic syndrome will improve the methods of prevention and treatment of complications of this pathology.

Objective

To study the body composition and nutritional status in comorbid and isolated COPD by anthropometry and bioimpedance measurement methods and to evaluate their relationship with vitamin D 25 (OH), tumor necrosis factor-alpha (TNF-α), leptin, adiponectin.

Materials and methods

The 1st subgroup included 37 COPD patients aged 35 to 72 years of groups B and E according to the risk classification of adverse outcomes according to GOLD 2023 without components of the metabolic syndrome. The 2nd subgroup consisted of 41 COPD patients of groups B and E with abdominal obesity and other components of the metabolic syndrome. Bioimpedance measurement was performed using a body composition analyzer on a Medass device. The principle of this non-invasive study is based on the total electrical resistance of body tissues using a bioimpedance analyzer. Taking into account the age, height, waist and hip circumference of the patient, the body fat mass (fat), fat-free (lean) body mass (TM), and musculoskeletal mass were determined. The concentration of vitamin D 25 (OH) in the blood serum was determined using standard ELISA «DIAsource» Belgium kits. The tumor necrosis factor-alpha (TNF-α) was determined by the quantitative method using Biochemmack reagents. The control group (3rd group) included 19 healthy volunteers with normal anthropometric data. The concentration of leptin, resistin and adiponectin was studied in blood serum by enzyme immunoassay using standard ELISA, Mediagnost and ELISA Biovendor kits.

Results and discussion

In patients with comorbid COPD, the GI index significantly exceeded this indicator by 46.23% in isolated COPD. It is interesting to note that 24.3% of patients with isolated COPD of group E and 54.3% with comorbid COPD of group E showed a decrease in fat-free body weight by 21.7% and 37.8%, respectively, reflecting a deterioration in protein metabolism and the severity of skeletal muscles and a tendency to decrease the severity of skeletal muscle mass. Correlations were revealed in the comorbid course of COPD between the level of vitamin D 25 (OH) and the gastrointestinal tract ($r = -0.74$; $p<0.01$), as well as the indicator of tumor necrosis factor-alpha (TNF-α) and TM ($r = -0.78$; $p<0.001$). In the group of patients with comorbid COPD, correlations were found between the index of musculoskeletal body mass and the volume of exhaled air at maximum forcing in the first second (FEV1) - ($r = +0.74$; $p<0.01$). It was found that a decrease in nutritional status negatively affects the processes of bone remodulation, changes in the state of respiratory muscles [2], which contributes to a decrease in physical activity, a tendency to respiratory infection.

As the comorbid course of COPD progresses, the indicators assessing the musculoskeletal body mass decrease, the content of vitamin D 25 (OH) decreases, the indicators of leptin and resistin increase. The revealed correlations suggest the need for timely detection and correction of indicators of fat-free body weight, musculoskeletal body mass and vitamin D 25 (OH) concentration in order to prevent the development and progression of the comorbid course of COPD.

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A RARE CASE OF OBSERVATION OF PRIMARY (IDIOPATHIC) MYELOFIBROSIS, CLINICAL AND MORPHOLOGICAL COMPARISON

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Primary (idiopathic) myelofibrosis is currently understood as a clonal myeloproliferative disease characterized by proliferation of predominantly megakaryocytic and granulocytic elements in the bone marrow, associated with reactive proliferation of connective tissue in the bone marrow with the presence of foci of extramedullary hematopoiesis. The disease proceeds in stages, cyclically, with the presence of an initial prefibrotic stage, characterized by bone marrow hypercellularity with minimal reticular fibrosis; then comes the fibrotic stage, in which the bone marrow shows marked reticular or collagenous fibrosis, and often also osteomyelosclerosis. A characteristic feature of the fibrotic stage is the presence of erythrocytes in the form of a lacrimal drop (dacrocytes) in a peripheral blood smear. In primary myelofibrosis, hepato- and splenomegaly occurs, which worsens the course of the disease. It is known that the incidence of primary myelofibrosis ranges from 0.5 to 1.5 people per 100,000 population per year. Most often, myelofibrosis occurs in the seventh decade of life, both sexes are affected with approximately the same frequency. Rarely seen in children (1). Usually bone marrow and peripheral blood are involved in the process. The spleen and liver are the most common sites for extramedullary hematopoiesis, but lymph nodes, kidneys, adrenals, dura, gastrointestinal tract, lungs, pleura, breast, and skin are also possible sites. It is manifested by severe leukoerythroblastosis and a violation of the morphology of erythrocytes. The clinical picture in up to 30% of patients is asymptotic at diagnosis, and is found incidentally as splenomegaly on routine examination, also in association with anemia or thrombocytosis. Symptoms may include fatigue, dyspnea, weight loss, night sweats, low grade fever, and bleeding. Due to hyperuricemia, there may be gouty arthritis and kidney stones. Splenomegaly of varying severity occurs in 90% of patients, and can be massive, about 50% have hepatomegaly. The etiology is unknown.

Effects of benzene and ionizing radiation are sometimes reported, and rare cases of familial myelofibrosis occur. Morphology. The classic picture of idiopathic myelofibrosis is leukoerythroblastosis in a peripheral blood smear in combination with erythrocyte poikilocytosis, especially with the appearance of dacrocytes. Bone marrow biopsy shows marked fibrosis. But morphological findings differ significantly in different patients, depending on the stage of the disease: prefibrotic or fibrotic. The purpose of the study: to provide a case of detection of the disease in a 74-year-old man.

Materials and methods

Routine laboratory tests were used: clinical blood count, sternal punctate test, bone marrow trephine biopsy, PCR test, bone marrow cytogenetic test.

Results and discussion

In a patient, a 74-year-old man, a peripheral blood smear against the background of moderate leukocytosis (15.5x109/l) showed an increase in immature forms of granulocytes (myelocytes 5%, metamyelocytes 3%), the appearance of blasts in peripheral blood (4%). Severe thrombocytopenia (33x109/l) was noted. Anisocytosis of erythrocytes (2+), polychromatophilia (+), poikilocytosis (3+), basophilic granularity of erythrocytes was noted. A basophilic-eosinophilic association was revealed. Based on the pronounced changes in peripheral blood, the patient was recommended to consult a hematologist to rule out a systemic blood disease. For the differential diagnosis of myeloproliferative disease, a sternal puncture was performed with myelogram count. According to the myelogram: the bone marrow is normocellular, polymorphic in composition, with an increase in the number of blasts up to 6.8%, erythroid germ was 21%, the type of hematopoiesis is normoblastic, granulocytic germ is 57%, with a delay in the release of mature neutrophils from the bone marrow. Single megakaryocytes, myelogram data corresponded to a chronic myeloproliferative process. Performed cytogenetic study, PCR study The patient underwent trepanobiopsy of the ilium, with histological examination of the bone marrow. In the trepanobioptate of the ilium, histological examination of the bone marrow revealed pronounced cellular hyperplasia with the displacement of adipose tissue, megakaryocytosis, and cicatricial changes. Cytogenetic examination of the bone marrow revealed trisomy 8 in 100% of metaphases, which is a characteristic cytogenetic sign of myelofibrosis. PCR examination of peripheral blood for the determination of JAK-2 mutations was not detected. Differential diagnosis was carried out with other chronic myeloproliferative processes: CML was excluded due to the lack of detection of

the Philadelphia chromosome in the cytogenetic study. Taking into account the clinical data, the morphological picture of the peripheral blood, bone marrow, taking into account the data of the PCR study and cytogenetic study, the diagnosis of primary myelofibrosis was confirmed. The course of the disease in this patient is relatively stable, with no signs of tumor progression, blood counts returned to normal after the use of cytostatics (hydroxyurea), glucocorticoids (prednisolone), blood transfusions. The case described by us is characterized by a relatively stable course of the disease.

The data of the given clinical case show that the study of routine laboratory parameters is of great importance for the detection of a rather rare myeloproliferative disease.

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HEREDITARY HEMATOGENOUS THROMBOPHILIA

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Abstract The study involved 95 patients aged 17 to 50 years who had undergone pulmonary embolism (PE). In 40 patients - 42% (25 men, 15 women) identified markers of hereditary hematogenous thrombophilia. For the purpose of secondary prevention of thrombosis, such patients were prescribed dabigatran, rivaroxaban, apixaban. Appointment of adequate antithrombotic therapy contributes to the disease-free course.

Keywords: hereditary hematogenous thrombophilia, pulmonary embolism.

Thrombophilia is an unusual predisposition to thrombosis with an early age onset, a family history, a severity of thrombosis disproportionate to a known causative factor, and episodes of recurrent thrombosis [1]. The American College of Thoracic Physicians on Antithrombotic and Thrombolytic Therapy (2008) defined thrombophilia as the presence of one or more of the following: antithrombin deficiency, protein C and S deficiency, resistance to activated protein C, factor V Leiden mutation, prothrombin G20210A mutation, hyperhomocysteinemia, homozygous carriage of a thermolabile MTHFR variant, antiphospholipid antibodies, increased factor VIII activity, or reduced protein Z levels [2]. Mutations in the plasminogen activator inhibitor, PAI-1, play a significant role in pathological thrombosis [3]. One of the frequent clinical manifestations of hematogenous thrombophilia is pulmonary embolism [4].

Materials and methods

The study involved 95 patients aged 17 to 50 years who had undergone pulmonary embolism (PE).

Results and its discussion

In 40 patients - 42% (25 men, 15 women) the following markers of hematogenous thrombophilia were detected: F5 Leiden mutations in 20 patients, prothrombin F2 G20210A in 12, MTHFR in 15, antithrombin III deficiency in 4, protein C in 5, hyperhomocysteinemia in 20 , antiphospholipid syndrome in 9 patients (the study took into account only APS in combination with markers of hematogenous thrombophilia). Four patients had a mutation of one gene, in other cases a combined form of thrombophilia was diagnosed. In 32 cases, heredity was diagnosed for pathological thrombosis. In 12 women, the provoking factor was the intake of hormonal drugs. Pathology of the veins of the lower extremities was diagnosed in 25 cases. The age composition of the surveyed: 6 at the age of 17 - 20 years, 12: 21 - 30, 13: 31 - 40, 9: 41 - 50 years. In 10 at the time of diagnosis of thrombophilia, relapses of PE were already registered.

Treatment of an acute episode of PE was carried out in accordance with international and Russian national recommendations [5]. For the purpose of secondary prevention of thrombosis, drugs

dabigatran, rivaroxaban, apixaban were prescribed; for hyperhomocysteinemia, angiovit; for congenital deficiency of protein C and antithrombin III, their commercial preparations were used. For the purpose of secondary prevention of thrombosis, dabigatran (Pradaxa) was prescribed to 20 patients; duration of admission from 12 months to 11 years; the dose of the drug was selected individually from 150 to 300 mg per day. Rivaroxaban (Xarelto) was prescribed to 15 patients for 12 months to 8 years; the dose of the drug is 10-20 mg per day. The drug apixaban (Eliquis) was prescribed to 5 patients (30-50 years old), the duration of treatment was from 12 months. up to 6 years, dosage - 5-10 mg per day.

Only one patient after the appointment of dabigatran had a relapse of PE, due to low adherence to treatment. The rest had no recurrence of thrombotic complications.

When using dabigatran and apixaban, hemorrhagic complications were not diagnosed. 5 patients treated with rivaroxaban experienced minor epistaxis; in three cases they stopped when the dose was reduced from 20 to 15-10 mg, two patients were switched to dabigatran. No life-threatening bleeding was reported.

Conclusion

PE is often a clinical manifestation of hematogenous thrombophilia (42%). Therefore, young people with PE, especially recurrent PE, should be screened for markers of thrombophilia. Appointment of adequate antithrombotic therapy contributes to the disease-free course.

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SOLITARY PLASMOCYTOMA. FEATURES OF DIAGNOSIS AND TREATMENT

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Abstract. A brief report on modern methods of diagnosis and treatment of solitary plasmacytoma is given. Two cases of this pathology from the personal practice of the authors are given.

Keywords: solitary plasmacytoma, diagnosis, treatment.

Solitary plasmocytoma (SP) is a plasma cell tumor characterized by local proliferation of clonal plasma cells without other lesions in bones and soft tissues, and there are no signs of damage to or-gans and systems associated with plasma cell proliferation [1]. Currently, SP is considered as the ini-tial (early) stage of multiple myeloma [2]. In accordance with the criteria of the International Myeloma Working Group (IMWG) (2014), 2 variants of SP were identified: SP without the presence of clonal plasma cells in the bone marrow and SP with a low level of bone marrow involvement (up to 10 % of clonal plasma cells) [3]. When diagnosing SP, it is necessary to exclude the generalization of the pro-cess. To this end, the following diagnostic techniques should be performed: examination of the skele-ton using traditional radiography, magnetic resonance or computed tomography; morphological exam-ination of the punctate of the sternum and trepanobioptate of the ilium, the study of serum immuno-globulins by immunofixation, the determination of total protein, urea, creatinine, calcium in the blood serum, clinical analysis of urine. The diagnosis of solitary plasmacytoma is valid only in the presence of a single myeloma focus (confirmed by histological and immunohistochemical studies), without signs of generalization, monoclonal secretion and renal failure [4]. SP is a rare pathology.

If the aver-age annual incidence of multiple myeloma in European countries and in Russia is 1.2–3.2 per 100,000 population, then SP does not exceed 7% of the total number of myeloma cases [1]. SP can come from either bone (bony form) or soft tissue (extramedullary). In the treatment of SP, chemotherapy, as a rule, is not prescribed, radical surgical and/or radiation treatment is performed. In the future, patients are dynamically monitored to exclude the generalization of the process. In most cases, SP generalizes (goes into multiple myeloma). The prognosis for extramedullary plasmocytoma is worse than for bone.

Materials and methods

We present two cases of this pathology from the practice of the authors.

Results and discussion

Patient Sh., born in 1942 In 1995, a «tumor-like» formation appeared in the region of the up-per third of the sternum, gradually increasing in size. In March 1996, he turned to the regional onco-logical dispensary, where a puncture of the "tumor" of the sternum was performed, which by that time had reached a size of 5 × 5 cm. A large number of plasma cells were found in the punctate. An x-ray of the sternum in the upper third revealed bone tissue destruction measuring 5×5 cm. With suspicion of multiple myeloma, he was transferred to the hematology department of the Amur Regional Clinical Hospital (AOKB). No changes were found in the clinical analysis of blood. Indicators of total protein, calcium, phosphorus, creatinine, urea in the blood are also within the normal range. Clinical analysis of urine without pathology. A sternal puncture was performed below the «tumor» formation. Myelo-gram contains 1% of plasma cells. Histological examination of the trepanobioptate of the ilium also did not reveal signs of generalization of the myeloma process. X-ray examination and computed to-mography revealed no destruction of other flat bones. The content of serum immunoglobulins is not changed. Thus, the patient had one single myeloma focus, without monoclonal secretion - solitary plasmocytoma of the upper third of the sternum. The patient underwent a course of radiation therapy to the region of the upper third of the sternum, after which the plasmocytoma regressed. Since 1996, the patient has been under dynamic observation. There were no data for the generalization of myelo-ma until 2013. In 2013, he noted a pronounced pain syndrome in the spine and ribs. An x-ray exami-nation revealed multiple destructions characteristic of MM, and anemia in a clinical blood test. When performing a myelogram - 35% of plasma cells. When performing an immunological study by the method of immunofixation, myeloma G was diagnosed, free light chains of immunoglobulins were found in the urine. Diagnosis: multiple myeloma secreting P Ig G, stage IIIA. Treatment was carried out according to the VCD protocol (bortezomib, cyclophosphamide, dexamethasone), in 2014 a par-tial remission of MM was achieved, which persisted until 2017. at that time, the patient was over 70 years old and was not referred for auto-HSCT. In 2017, the disease recurred; he received treatment according to protocols containing Revlimid. A second partial remission was achieved, which lasted until 2019. He received treatment according to various protocols, but remission was not achieved. In 2020, a fatal outcome was ascertained when a new coronavirus infection COVID-19 was added.

Patient K., born in 1932 in 1998, a tumor formation appeared in the area of the right half of the neck, 6×5 cm in size, of a dense consistency. He turned to the general practitioner, the «tumor» was regarded as an increase in the cervical lymph nodes, and with suspicion of lymphogranulomato-sis, the patient was referred for a consultation with a hematologist at the regional advisory clinic. The hematologist, having examined the patient, expressed doubt that the «tumor» is a conglomerate of en-larged cervical lymph nodes. It has been suggested that there is a cyst in the neck, or some kind of tu-mor not associated with the lymph nodes. X-ray and ultrasound examination of the «tumor» showed that it is not associated with bones and is located in soft tissues. In the department of maxillofacial sur-gery, an operation was performed to remove this formation. Histological examination made it possible to make a diagnosis of plasmocytoma. The patient is fully examined in terms of possible generaliza-tion of the process. A sternal puncture and a trepanobiopsy of the ilium were performed - no evidence of a generalized bone marrow lesion was found. No changes were found in the clinical analysis of blood. The content of serum immunoglobulins is not changed. When performing X-ray examination and computed tomography, destruction of flat bones was not detected. Clinical analysis of urine with-out pathology. Indicators of total protein, calcium, phosphorus, creatinine, urea in the blood are also within the normal range. Since the plasmocytoma was completely removed during surgery, further cy-tostatic and radiation treatment was not performed. The patient was followed up dynamically. Since 2001, the patient has ceased to appear at the appointment with a hematologist, and there was no in-formation about him until 2005. In July 2005, the patient was admitted to the hospital in serious condi-tion. In the right cervical and supraclavicular region, a "tumor-like" formation of considerable size was determined, a tumor of the parietal bone on the right was visually determined with dimensions of 8 × 8 cm. they did

not reach such a significant size, the patient did not attach any importance to this. In a clinical blood test: anemia - hemoglobin - 67 g / l, erythrocytes - 2.5 × 1012 / l, thrombocytopenia - 90 × 109 / l, ESR acceleration - 75 mm / h. In a biochemical blood test: total protein - 65 g / l, creati-nine - 350 µmol / l, calcium - 3.2 mmol / l. In the analysis of urine - protein 6 g, during the standard test, the Bence-Jones protein fell out. No increase in serum immunoglobulins was detected. X-rays of the skull and ribs show multiple bone destruction. X-ray and ultrasound examination of the "tumor" in the cervical region on the right showed that it was not associated with bones and was located in soft tissues. An operative biopsy of a part of this formation was performed. Its histological structure turned out to be similar to that which was discovered 7 years ago (plasmocytoma). But, in the sternal punc-tate and trepanobioptate of the ilium, an increased percentage of plasma cells was not detected. In this case, there was a generalization of plasmocytoma. The patient was diagnosed with Multiple myeloma, multiple focal form, Bence-Jones immunochemical variant, stage IIIB. Complication of myeloma nephropathy, chronic renal failure. Kidney damage is an extremely poor prognostic factor in patients with myeloma. Therapeutic tactics in this situation was significantly limited. There was no persistent therapeutic effect. In 2006, a lethal outcome was stated. The immediate cause of death was progression of renal failure.

Conclusion

SP can come from either bone (osseous form) or soft tissue (extramedullary). The main method for diagnosing SP is histological and immunohistochemical examination of biopsy or surgical material. In the treatment of SP, chemotherapy, as a rule, is not prescribed, radical surgical and/or radiation treatment is performed. In the future, patients are dynamically monitored to exclude the generalization of the process. In most cases, SP is generalized - it passes into multiple myeloma. The prognosis for extramedullary plasmocytoma is worse than for bone.

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TO THE QUESTION OF THYROID CANCER AGAINST A BACKGROUND OF TOXIC GOITER

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Abstract. According to the literature the frequency of thyroid cancer with a combination of toxic forms of goiter has been steadily increasing (3, 4, 5) and ranges from 2,1 to 5,7%. Toxic adenomais the most dangerous in this respect amongtoxic forms of goiter (3, 5). The main causes of cancer growth against the background of toxic goiter are the overall growth of cancer pathology, long thyrostatic therapy of hyperthyroidism, improvement of diagnostics, etc. Against the background of toxic goiter the multicentric growth of carcinomas is observed in 21,3-22, % of cases. In the presence of thyroid cancer it is marked persistent severe course with a high propensity for recurrence of hyperthyroidism and insufficient effect of conservative therapy (1,2). Unfortunately, the cancer often against the background of exophthalmic goiter is revealed after the operation and obtaining diagnostic evaluation by histologists.

Keyword: cancer, toxic adenomais, diagnostic, treatment, histologists.

Obyective

Results of treatment for patients with thyroid cancerand toxic goiter

Materials and methods

There were studied results of treatment of 105 patients with toxic goiter who wereoperated at the clinic of general surgery of ASMA between 1990-2012 years. Among operated patients with toxic goiter there were 21 men (20%) and 84 (80%) women. The mean age was 48, 0 ±1,7 years. Disease duration with toxic goiter was 3, 2 ±1,2 years. Thyroid cancer against the background of toxic goiter was revealed in 8 (7,6%) patients.

Diagnostic algorithm included: assessment

of clinical symptoms, ultrasonography with fine-needle biopsy, thyroid scan, the level of thyroid and thyroid-stimulating hormone.

Results and discussion

Cancer against the background of toxic goiter before surgery was found in 3 patients, and in 5 - after morphological examination of resected gland. Among them there were two men, women -6. Cancer against the background of diffuse toxic goiter was found in one percent, against the background of toxic adenoma it was in 4 and in 3 against the background of multinodular toxic goiter.

In the presence of thyroid cancer thyrotoxicosis in the study group of patients was more severe compared with the total group of patients with toxic goiter. It should be noted that patients with carcinoma against the background of toxic goiter for a long time (mean 3,9 years) were treated by thyrotoxic drugs. The duration of conservative therapy have almost twice exceeded the rate in the total group of patients with toxic goiter. These data are consistent with popular opinion about the adverse effects of drugs on the epithelium of thyroid gland. Thus, the likelihood of developing of cancer of the thyroid gland against the background of toxic goiter increased respectively to the duration of hyperthyroidism and conservative treatment.

Indications for surgery were: relapse of hyperthyroidism, the inefficiency of conservative therapy, cancer against the background of toxic goiter. All patients were operated under general anesthesia. The volume of transactions was thyroidectomy.

Postoperative complications in patients operated with cancer against the background of toxic goiter were observed in 2 patients, both had hemi lateral paresis of larynx.

According to the morphological structure all tumors of the thyroid gland in operated patients were presented by highly differentiated adenocarcinomas. Follicular cancer was detected in 6 (75%) patients, which distinguished this group of patients from the group of thyroid cancer, where there was a marked predominance of papillary carcinomas.

Postoperatively, the patient underwent a course of radiotherapy. The patients were admitted to the 'D' registered, received L - thyroxine suppressive doses under control of TSH. 5-year survival rate of thyroid cancer patients against the background of toxic goiter was 95%.

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ACOUSTIC LOAD AND OXIDATIVE STRESS IN THE EXPERIMENT

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Abstract. The effect of acoustic load on a warm-blooded organism was studied in the experiment. It has been established that the exposure of rats to noise for 6 days for 1 hour daily leads to the formation of oxidative stress. This is confirmed by the accumulation of lipid peroxidation products and a decrease in the activity of the components of the antioxidant system in the blood of rats in comparison with similar parameters in intact animals.

Ke words: acoustic load, oxidative stress, products of lipid peroxidation, antioxidant system, experiment, rats.

The adverse effect of noise on the body is based on denaturation changes in cell membrane proteins, which potentiate the disruption of the structure of lipoprotein complexes against the background of an increase in the intensity of lipid peroxidation processes under conditions of a decrease in the activity of the antioxidant system [1, 5, 8, 11]. According to the literature data, exposure to noise on laboratory animals for an hour is accompanied by shifts in the balance of

the pro-antioxidant system in various tissues and changes in lipid-protein intermolecular interactions in the structure of the outer layer of the erythrocyte membrane, which predetermines the need to develop methods for the prevention and correction of noise exposure [4, 6 , 9, 10]. It is necessary to focus on the possibility of using acoustic loading in pharmacological studies as an experimental model for the formation of oxidative stress in a warm-blooded organism, in connection with which this experiment was carried out.

Objective

Study of the effect of acoustic load on the level of oxidative stress markers in the blood of laboratory animals.

Materials and methods

The experiment was carried out on 30 outbred male rats weighing 200–220 g for 7 days. The animals were divided into 2 groups: group 1 - intact group, the animals were kept under standard vivarium conditions; 2nd - control group, the animals were subjected to acoustic stress daily for 6 days with a sound pressure level of 95-105 dB and an exposure time of 1 hour. On the 7th day of the experiment, the animals were sacrificed by decapitation. The results were taken into account by the ratio of diene conjugates, lipid hydroperoxides, malondialdehyde, ceruloplasmin, vitamin E, catalase in the blood of rats according to the methods published earlier [2, 3, 5, 7], processed by standard parametric methods using Student's t-test.

Results and discussion

The results of the study showed that the content of diene conjugates in the blood of control animals subjected to acoustic stress is significantly higher by 40% relative to intact rats ($p<0.05$), lipid hydroperoxides - by 45% ($p<0.05$), malondialdehyde - by 49% ($p<0.05$), which indicates an increase in the intensity of peroxidation processes under noise exposure. Under these conditions, there was a decrease in the activity of the components of the antioxidant system in the blood of control animals in comparison with intact rats: the level of ceruloplasmin in animals of the control group was lower by 38% ($p<0.05$), vitamin E - by 21% ($p<0.05$), catalase activity - by 18% ($p<0.05$).

Thus, the prooxidant effect of acoustic load has been experimentally established, which is advisable to use when modeling oxidative stress in preclinical studies.

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PREGNANCY OUTCOMES IN WOMEN WITH A VELAMENTOUS CORD INSERTION WHO HAVE HAD COVID 19

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Abstract. In 15.3% of women who had a coronavirus infection with a diagnosed velamentous cord insertion, childbirth was premature. The 69.2% was delivered by C-section and 3.8% ended with intrapartum fetal death.

Keywords: coronavirus infection, umbilical cord pathology.

The mechanism of vascular damage in COVID-19 includes three main pathological mechanisms: vascular endothelial cell dysfunction, hyperinflammatory immune response, and hypercoagulation [1, 2]. Pregnant women show signs of maternal vascular malperfusion, especially abnormal or damaged maternal vessels and intervillous thrombi. According to the literature, 56% of pregnant women in the placenta affected by COVID-19 were diagnosed with chorangiosis, which is a sign of fetal vascular malperfusion, and 24% had maternal vascular anomalies [3]. An increase in vascular anomalies of the placenta was noted - a velamentous cord insertion, which leads to severe complications of pregnancy [4, 5].

The aim of our study was to study the outcomes of pregnancies in women who have had COVID 19 with a diagnosed velamentous cord insertion. The study included 26 pregnant women with a velamentous cord insertion. All patients had a mild form of COVID-19 without damage to the lung tissue. Velamentous cord insertion was diagnosed during pregnancy in 73%. Hypertensive disorders during pregnancy were diagnosed in 30.8%, which may indirectly indicate the presence of endothelial dysfunction in this cohort. Premature rupture of membranes was in 23.1%. 84.7% of women gave birth at term, 15.3% of women delivered prematurely. 30.8% of women gave birth through the natural birth canal, 69.2% by C-section, 77.8% of them with emergency conditions. Category 1 indications for delivery were: premature detachment of the placenta and fetal distress. In 3.8%, childbirth ended in intrapartum fetal death. According to the literature, velamentous cord insertion increases the risk of placenta previa (OR = 3.7, 95% CI = 3.1-4.6) and placental abruption (OR = 2.6, 95% CI = 2.1-3.2), there was also a high risk of delivery by emergency caesarean section (OR = 2.9, 95% CI = 2.4–3.8) [4]. Currently, there is a discussion about the impact of coronavirus infection on vascular anomalies, including those in the placenta, as well as its delayed impact, in particular, formed endothelial dysfunction, which requires further study. The study was carried out with the financial support of the Russian Science Foundation (agreement No. 23-25-00049 of 01/12/2023).

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CLINICAL AND EPIDEMIOLOGICAL FEATURES OF ACUTE VIRAL HEPATITIS IN THE AMUR REGION

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Abstract. Viral hepatitis remains a multifactorial medical and economic issue of both global health and individual states, including the Russian Federation (Russia), due to its high incidence, including among persons of working and child-bearing age, ubiquitousness, chronic and malignant process, as well as significant treatment costs.

Keywords: acute viral hepatitis, epidemiological situation, clinical features

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To study the clinical and epidemiological features of acute viral hepatitis in the Amur Region for the period 2020-2022.

Materials and methods

A retrospective analysis of the medical records (Form 003/y) of inpatients with acute viral hepatitis presented by the State Autonomous Healthcare Institution of the Amur Region "Amur Regional Infectious Diseases Hospital" and annual reports on infectious and parasitic diseases (Form No. 2) in the Amur Region for 2020-2022 was carried out.

Results and discussion

Over the past decades, there is a downward trend in the activity of the epidemic process of acute viral hepatitis (AVH) in the Russian Federation; in particular, in the Amur Region, the epidemiological situation per those nosologies is regarded as safe [1,2]. The incidence rates of AVH in the Amur Region, with account for its causative factor, are presented in Table 1.

Table 1. Incidence rates of acute viral hepatitis in the Amur Region in 2020-2022

Acute viral hepatitis	Morbidity per 100,000 population					
	2020		2021		2022	
	Amur Region	Russia	Amur Region	Russia	Amur Region	Russia
AHA	0.51	1.89	0.77	1.43	0.65	1.58
AHB	-	0.35	0.1	0.31	0.2	0.29
AHC	0.25	0.66	1.43	0.58	1.17	0.75

During the period under consideration, the incidence of acute hepatitis A (AHA) was lower than the average Russian level (by 3.7 times in 2020, by 46.3% in 2021, and by 59% in 2022). The incidence of acute hepatitis C (AHC) was generally higher than the average Russian level (by 3.5 times in 2021, 55.3% by 2022), however, in 2020 it was lower by 62.1%. The incidence of acute hepatitis B (AHB) was recorded at the sporadic level. Among the child population, there have not been any registered cases of this pathology for more than 10 years. In the etiological structure of AVH of 2020, the share of AHA was 66.7%, of AHC – 33.3%. In 2021, the share of AHA was 26.1%, of AHC – 69.6%, of AHB – 4.3%. In 2022, the share of AHA amounted to 32.1%, of AHC – to 56.3%, of AHB – to 12.5% [2]. The gender and age structure was distributed as follows: among all cases of AHV, 93.6% cases were registered in the adult population. The incidence in the preschool and school-age children was recorded in 2020 and 2021 (acute hepatitis A only). 57.1% cases of AHA were detected in women aged 17-30 and 30-55 years. AHC was diagnosed in men and women equally (50% both), more often in the age groups of 17-30 and 30-55 years. AHB was registered only in women, predominantly in the age group of 30-55 years. Elderly people with AVH accounted for 17% cases (mostly AHC). The share of urban residents was registered at 82.9%. In the clinical picture of acute viral hepatitis, a moderate course of the disease prevailed. 19.1% of patients had various multimorbid conditions (diabetes mellitus, bronchial asthma, hypertension). When detailing the epidemiological history, among the established transmission routes, invasive interventions of a non-medical nature and the consumption of raw unboiled water were most often named.

Conclusion

In summary, the epidemiological situation in terms of the AVH incidence in the Amur Region for the period 2020-2022 remains safe. However, there is an increase in registered AHC cases among

the adult population, both in men and women of working and reproductive age, with the share of the urban population being 82.9%. It should be noted that in the pediatric population, AHB cases have not been detected for more than 10 years. The clinical picture was dominated by a moderate course of the disease; 19.1% of patients had concomitant pathologies. In the epidemiological history, the main routes of transmission were invasive non-medical interventions and the use of raw unboiled water.

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RESEARCH OF ANTI-CANCER EFFECT OF TRADITIONAL CHINESE HERBAL MEDICINE BASED ON PRECISE TARGETED REGULATION OF TUMOR MICROENVIRONMENT BY EXOSOMES

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Abstract. Traditional Chinese herbal medicine and Polypill have been used long time for the treatment of tumor. However, due to the multi-component and multi target characteristics of traditional Chinese herbal medicine, the existing pharmacological research technology has not yet clarified the anticancer effective substances and mechanisms of traditional Chinese herbal medicine, and limits the clinical application and development of anticancer of traditional Chinese medicine. This article reviews the ways and functions of exocrine biogenesis, reveals the role and mechanism of exocrine regulation of tumor genesis and development under the tumor microenvironment conditions, and aims to explain how exocrine can be used as a carrier of anti-tumor drugs to tap anti-tumor effective substances of traditional Chinese medicine, and promote high-quality development of traditional Chinese medicine in inheritance and innovation

Keywords: exosomes, traditional chinese herbal medicine, tumor microenvironment, effective substances

Cancer is one of the diseases that seriously threatens human life. Its fatality rate is second only to cardiovascular diseases. Cancer has no obvious clinical symptoms in the early stage of its onset. Traditional Chinese medicine is commonly used in the prevention and treatment of cancer due to its multi-component and multi-target characteristics. However, due to the lack of effective research methods to elucidate the material basis and mechanism of the anticancer effect of traditional Chinese medicine, the application and development of its anticancer effect are greatly limited. Modern research shows that there are complex interactions between tumor derived exosomes and Tumor microenvironment. Exosomes are the communication medium between tumor cells and the outside world, which can transmit targeted signals for the process of tumor occurrence and development. At the same time, exosomes can be used as the targeting carrier of anticancer drugs, delivering anticancer drugs to the action target to play an anti-tumor role. Based on this, this article explores the application of exosomes in the clinical diagnosis and treatment of cancer, and the research strategy of exosomes as drug carriers to elucidate the anticancer substances and mechanisms of traditional Chinese medicine.

Complex interaction between exosomes and Tumor microenvironment

Tumor microenvironment (TME) is a complex dynamic change network composed of malignant tumor cells, stromal cells, various immune and inflammatory cells, fibroblasts, angiogenic factors, etc[1]. It is the internal environment for tumor growth, proliferation, invasion and metastasis. Tumor related mesenchymal stem cells, fibroblasts, immune cells and other cells interact in the Tumor microenvironment and activate/suppress related signal networks, thus controlling the occurrence and development of tumors. One way of communication between the Tumor microenvironment and other

tissues and organs is exosomes. Exosomes promote the initiation, metastasis and drug resistance of tumors through cell cell communication within the tumor microenvironment, including promoting the remodeling of the Tumor microenvironment, tumor angiogenesis, and migration, invasion, metastasis and drug resistance of tumor cells.

Application of exosomes in the study of anti-tumor mechanisms of traditional Chinese medicine

The theory of TCM diagnosis and treatment of diseases has the characteristics of holistic view and systematic view. TCM regards the body as a whole to study the balance and imbalance of the human body. It believes that if the body is in balance, it will be healthy. Otherwise, the disorder and imbalance of the body's metabolic network will inevitably lead to and prompt the emergence of certain diseases. The overall nature of tumor microenvironment microscopy is greatly similar to the holistic view of traditional Chinese medicine in diagnosing and treating diseases. Tumor development has characteristics such as long cycle, multiple targets, and easy metastasis[2]. Traditional Chinese herbal medicine has the characteristics of multi-component, multi-target and synergistic effect. Modern research shows that exosomes, as non-invasive biomarkers, are the information transmission medium between tumor cells and cells. Based on exosomes as the stable mechanism of regulating Tumor microenvironment, and the research on the anti-cancer mechanism of Chinese medicine carrier targeting the regulation of Tumor microenvironment, it is a new idea and method to explain the scientific connotation of Chinese medicine in the prevention and treatment of tumors.In the bacteriological laboratory of SAHE AR «Amur regional infectious hospital» 65 investigations were carried out during the period of 2012-2014 which made up 16,6% of all investigations conducted on the bacterial flora by means of ICM. Correlation of the investigations carried out for the three-year period made up: in 2012-43,1%, in 2013-29,2% and in 2014-27,7%. Positive tests on the detection of A and B toxins of the causative agent were registered in 2012 - in 10,7% of cases, in 2013 they were not registered and in 2014 they made up 11,1% of cases.

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RESEARCH PROGRESS ON PHARMACOLOGICAL EFFECTS AND MECHANISMS OF SCHASANDRIN A

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Abstract. Schisandrae Chinensis Fructus is the dry and mature fruit of Magnoliaceae plant Schisandrae Chinensis Fructus.It is sour,sweet and warm in taste.It has the effects of astringing,invigorating qi and promoting fluid,tonifying kidney and tranquilizing heart,and contains lignans,polysaccharides,volatile oils and other chemical components.Modern research shows that lignan in Schisandra are the main active components of the genus,such as schisandrin A,B,C,alcohol A,alcohol B,ester A and ester B.This paper reviews the monomer composition of alcohol A,which also known as Schisandrin,is a lignan extract has abundant biological activities.It has been found that Schisandrin A has a great effect on anti-depression,sedative and hypnotic effect,preservation of liver,hypoglycemic and anti-osteoporosis,etc.Moreover,its mechanisms are further elaborated,which can provide the theoretical basis for the development and clinical application of Sch's healthy products.

Keywords: Schisandrin A; pharmacological action; mechanism; review;effects

SchisandrinA(SA),also known as Schisandrin,is an active lignan extracted from the mature fruits of Schisandra chinensis(Turcz.) Baill.Schisandrin has a wide range of pharmacological activities and minor toxic and side effects.It is a commonly used drug in clinical practice.

In recent years,a large number of studies have been conducted on schisandrin at home and abroad,and it has been found that it has a significant protective effect on the central nervous system,especially in the treatment of neurodegenerative diseases,depression,anxiety,insomnia and cerebral ischemia-reperfusion injury. In addition,Schisandrin A can prevent diabetic vasculopathy and retinopathy by inhibiting the activity of related kinases,and it can be used in

the treatment of postmenopausal osteoporosis by taking advantage of the fact that it belongs to the natural oestrogen,and it also has hepatoprotective effects.

The aim of this paper is to summarise the progress of research on the pharmacological effects and mechanisms of Schisandrin A in domestic and international literature,and to lay a theoretical foundation for the development of new clinical drugs of Schisandrin A.

Objective

To explore the progress of pharmacological researches on Schisandrin A,which can provide a reference for the development and utilisation of sequestration.

Materials and methods

The pharmacological studies of Schisandrin A were reviewed in recent years by computer retrieval of CNKI,Pubmed and other databases.

Results and discussion

The pharmacological study of Schisandrin A was reviewed.It was found that Schisandrin A could treat Cardio-cerebrovascular disease and liver injury through related signal channels about anti-inflammatory and anti-oxidation actions,anti-osteoporosis activity through promoting the differentiation of osteoblast,prevent atherosclerosis through boosting the apoptosis of VSMC,etc. In recent years,the proposal of autophagy, "microorganism-brain-gut"axis concepts and the found of ATP6V0D1make the pharmacological mechanism of Schisandra more abundant.

As a result,this article summarizes the role of Schisandrin A in the treatment of different diseases,and expounds its possible regulatory signaling pathways,regulated genes,neurotransmitters and protein expression.It was noted that Schisandrin A has great effects on protecting the central nervous system,preservation of liver,hypoglycemic and other pharmacological effects,and its mechanism is constantly being excavated and improved.It is noteworthy that the above mechanisms do not exist independently,but are interrelated and interact with each other.The same mechanism may be involved in different diseases(such as PI3K / AKt signaling pathway has a certain regulatory role on Alzheimer Diseases(AD),Parkinson's Diseases(PD) and depression).In the future,it can provide more comprehensive ideas for related research.

In recent years,based on the traditional theory of "heart and small intestine being interior-exteriorly related",the researchers explored the effects of Schisandrin A on PD and AD.However,there is still a lack of literature research on the mechanism of Schisandrin A in PD,anxiety disorder,cerebral ischemia-reperfusion injury and other diseases. Therefore,the ' brain-gut axis ' mechanism of Schisandrin A can be further improved in the future.

In addition,this article mentions the contradiction between the sedative sleep and wake-promoting effects of Schisandrin A,and hopes that follow-up studies can be further confirmed.

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ACTIVE INGREDIENTS AND MECHANISM ON ANTIRHEUMATIC EFFECT OF *URTICA ANGUSTIFOLIA* FISCH. EX HORNEM

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Abstract. The result of anti rheumatic effect of active ingredient from Urtica angustifolia Fisch. ex Hornem(UA) and its related mechanism is presented in this paper. The experimental study on the anti rheumatoid arthritis in vivo of adjuvant arthritis model rats by the part with the highest content of total flavonoids in UA (i.e. the 50% ethanol eluting part enriched by macroporous resin) were carried out, and the main active ingredient of the anti RA effective part of UA and its mechanism of action in combination with network pharmacology and macromolecular docking technology were further explored. At the same time, the preliminary identification of the chemical components of the effective parts and quantitative analysis of the main components were completed. All these studies lay the experimental foundation for the in-depth study of the anti rheumatic effect of UA.

Keywords: *Urtica angustifolia*, anti rheumatoid effect, active ingredient, acting mechanisms, network pharmacology

UA is a perennial herb of the Urtica genus in the Urticaceae family. It is a commonly used folk medicine in China. Its medicinal history was first recorded in the Classic of Materia Medica and other ancient books. It has the effects of dispelling wind, calming convulsions, dissipating food and relieving constipation.

Urtica plants also was applicated in Russian Federation and other countries. In recent years, the pharmacological activities of Urtica plants have been extensively studied. It is found that most of them have anti-inflammatory and analgesic effects, anti prostatic hyperplasia, immune regulation and other pharmacological activities. Studies showed that the effective part of UA has significant anti-inflammatory and analgesic effects, but the research on its antirheumatic active ingredient and its mechanism has not been carried out in depth.

Therefore, based on the previous experimental basis of the research group, this paper mainly focuses on the 50% ethanol eluting part of UA and conducts pharmacodynamic research on it by establishing an AA rat model. At the same time, network pharmacology and macromolecular docking technology were used to speculate the active ingredient and its mechanism of action, and the results of the overall animal experiment were mutually verified to preliminarily determine the effective part. The chemical composition of the effective part of UA was preliminarily confirmed and quantitatively analyzed by UPLC/MS.

Objective

To study the anti-inflammatory effect of active ingredients and its related mechanisms of the part with the highest total flavonoid content from UA, which part is enriched with macroporous resin and eluted by 50% ethanol.

Materials and methods

The AA rat model was used to study the effect of 50% ethanol eluting part of UA with indexes of body weight change trend, toe swelling rate (inhibition rate), arthritis index, thymus and spleen index, TNF-α and IL-6 in serum. The network pharmacology was used to screen the antirheumatic active ingredient of UA and analyze the related pathways and the analysis results were verified by Macromolecular docking technology. UPLC-Q-TOF-MS/MS technology was used to quickly identify the chemical components and quantitative analysis was carried out on the main active components of them, including astragaloside, isoquercitrin, rutin and chlorogenic acid.

Results and discussion

From the 9th day of the pharmacodynamic experiment, there was a significant difference in the arthritis index of rats in the treatment group compared to the AA model group ($P<0.05$). And there was a significant difference in the immune organ index of rats in the TG treatment group and UA-H treatment group ($P<0.01$). Except for the UA-L group, the levels of IL-6 and TNF-α in all treatment groups were significantly decreased ($P<0.05$).The network pharmacology study showed that the active ingredient of UA are mainly rutin, 3,4-diphenyltetrahydrofuran, isoquercitrin, shikonin and chlorogenic acid. The key target proteins of RA include ALB, AKT1, EGFR, SRC, and CASP3. The main pathways are mitogen activated protein kinase signaling pathway, phosphatidylinositol 3-kinase signaling pathway and nuclear factor κB signal transduction, etc.

Using UPLC-Q-TOF-MS/MS technology, according to the retention time, secondary fragment ions, fragmentation rule and comparison with the literature, it was preliminarily determined that the

main chemical components were astragaloside (1.07 mg/g), isoquercitrin (15.07 mg/g), rutin (3.66 mg/g), chlorogenic acid (2.13 mg/g), ferulic acid, etc.

As a result, 50% ethanol elution site of UA was identified as an effective antirheumatic part. Preliminary analysis was conducted on its chemical composition, target points, and mechanism of action. It provides experimental basis for the in-depth research and further development and utilization of UA resources in Heilongjiang Province. In the future, the in vivo and in vitro test verification of active ingredient will be carried out to provide reference for the application and development of new preparations of UA.

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APPLICATION OF PCR ARRAY TECHNOLOGY TO STUDY THE MOLECULAR MECHANISM OF ZE XIE DECOCTION ON HYPERLIPIDEMIA MODEL MICE

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Abstract. Aiming at the advantages of the lipid-regulating effect of traditional Chinese medicine, this study selected Zexie Decoction as the main research object, used PCR Array, qPCR, Western Blot and other technologies to study its mechanism, and finally explored the upstream regulatory factor miRNA of the key target of lipid-regulating. The mechanism of Zexie Decoction on lipid metabolism network regulation was discussed from different levels of animal whole, protein and gene.

Keywords: Zexie Decoction, PCR Array,lipid-regulating

Hyperlipidemia is a pathological state in which abnormal lipid metabolism in the body leads to abnormal serum lipid and lipoprotein levels. Dyslipidemia is one of the most important risk factors for ASCVD. Therefore, effective prevention and treatment of hyperlipidemia is an important way to prevent cardiovascular diseases. In addition, hyperlipidemia, as a metabolic disease, can also induce a series of complex diseases such as hypertension, diabetes, fatty liver, etc. It is these complications that cause organ damage and harm, increase the fatality rate, and seriously affect the quality of life of patients.

Zexie Decoction is composed of Zexie and Alismatid rhizoma traditional Chinese medicine, which is beneficial to the effect of water removal, strengthening spleen and water treatment. They can play a total effect of strengthening spleen and turbidizing, and have a good effect of lowering blood lipids. The aim of this study is to explore the molecular mechanism of Zexie decoction in lowering lipid from different angles by using various advanced techniques.

Objective

To clarify the molecular mechanism of Zexie Decoction's lipid-regulating action from different levels of animal as a whole, protein and gene by using network pharmacology, PCR Array, qPCR, Western Blot and other techniques taking the classic prescription Ze xie Decoction as the research object and the hyperlipidemia mice as the model.

Materials and methods

90 KM mice were randomly divided into blank group (n=15) and high-fat group (n=75) after 7 days of adaptive feeding. Blank group mice were fed with basal diet, and high-fat group mice were fed with high-fat diet. It was confirmed that hyperlipidemia model mice were successfully established and used for subsequent experimental studies. The mice were randomly divided into 7 groups: model group, simvastatin group, high-dose group of Zexie Decoction, medium-dose group of Zexie Decoction, low-dose group of Zexie Decoction, Alismatid rhizoma group and Atractylodes rhizoma group.

Results and discussion

PCR Array was used to detect 90 target genes. The results showed that there were 5 undetected genes, which were CYP2c66, EGF, IL2, PTGS2

and MMP9. According to the Fold Change and P-value analysis, there were 44 reverse regulation genes in the Ze xie Decoction group compared with the model group. GO enrichment analysis was performed on 44 genes that were reversely regulated, and the results showed that 266 items (P <0.05) were obtained from GO functional enrichment analysis in DAVID, including 205 items of biological process (BP), 23 items of cell composition (CC) and 38 items of molecular function (MF). KEGG enrichment analysis was performed on 44 reverse-regulated genes, accounting for 77.00%, 8.70% and 14.30%, respectively. The results showed that 99 signaling pathways were screened by KEGG pathway enrichment analysis (P <0.05), among which the most significant pathways included: PI3K-Akt, insulin resistance, cancer, non-alcoholic fatty liver disease, TNF, HIF-1, MAPK signaling pathway, etc.

The results of qPCR and Western Blot showed that the expressions of PIK3CG, AKT1, IL-6 and ABCA1 genes were significantly down-regulated in Ze xie Decoction group, while the expressions of ABCG1 and CYP3A11 genes were up-regulated, with statistical significance (P <0.05, P <0.01). At the same time, the protein expression levels of PI3 Kinase P110 β, P-Akt (Ser473), P-gp and SREBP-1c were down-regulated, while the expression levels of CYP3A11 were up-regulated, with statistical significance (P <0.05, P <0.01).

The results of miR experiment showed that Ze xie Decoction could reverse regulate the levels of mir21-5p and mir122-5p (P <0.05, P <0.01), but had no significant effect on mir33-5P.

Zexie Decoction has a significant regulation effect on lipid metabolism in hyperlipidemia model mice, and can improve the liver damage caused by hyperlipidemia. Its lipid regulation effect may be related to the regulation of cholesterol metabolism and transport in vivo, and the effect of Zexie Decoction on lipid regulation is better than that of single drug. PCR chip combined with qPCR and WB showed that the lipid-regulating mechanism of ZieXie Decoction was closely related to miR21/PI3K/AKT/SREBP pathway.

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CLINICIAL OBSERVATION ON THE TREATMENT OF EARLY ANAL FISSURE BY TRADITIONAL CHINESE MEDICINE SITZ BATH COMBINED WITH TRADITIONAL CHINESE MEDICINE DIRECTIONAL DRUG PENETRATION THERAPY

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Abstract. Anal fissure is a common disease in anus and intestinal department, which causes great disturbance to patients' work and life due to its symptoms of bleeding and pain. In this paper, we observed and analysed the treatment effects, including the improvement of pain, of patients with early anal fissure in the outpatient clinics and wards of the Department of General Surgery of the Third Affiliated Hospital of Heilongjiang University of Chinese Medicine through the use of traditional Chinese medicine (TCM) sitz baths in conjunction with TCM directional transdermal therapy, with a view to providing clinical and theoretical bases for the treatment of early anal fissure.

Keywords; Early anal fissure, Chinese herbal sitz bath, Chinese directional drug delivery therapy, Pain, Ponstipation.

Anal fissure is a chronic disease in which the entire skin of the anal canal splits longitudinally and forms an infected ulcer, which is characterised by periodic anal pain, bleeding, constipation [1]. Chinese medicine believes that anal fissure is mostly due to yin deficiency and fluid deficiency or internal heat and intestinal dryness, resulting in constipation, defecation force to make the anal skin fissure, dampness and heat obstruction, dyeing and poison [2].According to clinical symptoms, anal fissure can be divided into acute fissure and chronic fissure. For acute anal fissure, early intervention and conservative treatment are extremely important to prevent acute anal fissure

from becoming chronic anal fissure.According to the dialectical typing of Chinese medicine, anal fissure can be divided into blood-heat and intestinal dryness type, Yin deficiency and fluid deficiency type, and Qi stagnation and blood stasis type.

Conservative treatment for early anal fissure in traditional medicine includes internal Chinese medicine, sitz bath, external application of Chinese medicine and acupuncture therapy. Chinese herbal fumigation uses the fluidity of the liquid to act directly on the lesion. It can effectively relieve deep muscle tension, reduce swelling and relieve pain [3].Compressing is an external treatment method of Chinese medicine that enables medicines to be applied directly to the affected area or designated acupoints for the treatment of diseases [4].In acupuncture, acupoints are stimulated to obtain qi, which stimulates blood flow and meridian circulation within the acupoints and produces the effect of dredging the meridians and opening up the channels [5].

Objectice

To observe the clinical effect of traditional Chinese medicine sitz bath combined with traditional Chinese medicine directional transdermal therapy in the treatment of early anal fissure, including the effect on pain and constipation, with a view to providing clinical and theoretical basis for early treatment.

Materials and methods

A total of 40 cases of early anal fissure patients who met the study criteria were included in this trial, and were randomly divided into 20 cases each in the treatment group and the control group. The control group used boric acid and zinc oxide ice tablet ointment, and the treatment group used traditional Chinese medicine sitz bath combined with traditional Chinese medicine directional drug delivery therapy,Chinese medicine sitz bath drug composition: honeysuckle, fengfeng, five times the seeds, wormwood, snakebeds, peony bark, safflower, Huanglian.The transdermal therapy acted on the large intestine yu, and the treatment period was 14 days in both cases.The trends of each TCM evidence score and VAS pain score before and after treatment were observed and recorded respectively.

Results and discussion

1. The TCM scores and VAS scores of the groups before and after treatment were analysed, and the scores of the treatment group decreased compared with those before treatment, with $P<0.05$, which was statistically significant; and the scores of the control group decreased compared with those before treatment, with $P<0.05$, which was statistically significant. Both groups have obvious effects on the symptoms accompanying early anal fissure.

2. Comparison between the two groups of the post-treatment points of each Chinese medicine syndrome, in the three aspects of pain, bleeding, wound healing, the effect of the treatment group is better than that of the control group, $P < 0.05$, statistically significant.

3. For the comparison of VAS scores between the two groups after treatment, the treatment group was better than the control group, $P < 0.05$, with statistical significance.6. Comparison of therapeutic efficacy: the total effective rate of the treatment group was 90%, and the total effective rate of the control group was 76.67%, and the treatment group was better than the control group, $P < 0.05$, with statistical significance.

The combination of traditional Chinese medicine sitz bath, traditional Chinese medicine directional transdermal therapy and boric acid-zinc oxide ice tablet ointment can effectively improve the symptoms of pain, bleeding and wound defect in early anal fissure. In improving pain, bleeding and wound healing, the effect of traditional Chinese medicine sitz bath combined with TCM directional drug delivery therapy was particularly significant.

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THE CLINICAL APPLICATION OFCROSS ELECTRO-NAPE-ACUPUNCTURE» THERAPY

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Abstract. With the rapid progress of western modern medicine, the scientific nature of Chinese traditional medicine has been verified to different degrees. In the new era, combining the traditional Chinese medical theory with the new knowledge and understanding of modern medicine, the «cross-electric needle» with academic innovation and clinical efficacy came into being.Our research group has found that «Cross electro-nape-acupuncture» has a clear effect on consciousness recovery, ventilator off-line, improving swallowing function, promoting cough reflex recovery and other directions, and a case of respiratory off-line after phrenic nerve resection was treated with cross electric acupuncture.

Keywords: Cross electro-nape-acupuncture, severe cerebrovascular disease, phrenic nerve injury

Nowadays, relying on the rapid development of neuroanatomy and neurology in modern medicine, the theory of acupuncture in traditional Chinese medicine has been supported by multiple theories such as traditional Chinese medicine and modern Western medicine, and has realized «walking on two legs». Dr. CAI Guofeng from Heilongjiang University of Chinese Medicine innovatively combined traditional acupuncture techniques with electrical stimulation and adopted a special connection method of positive and negative power sources to form a «Cross electro-nape-acupuncture» therapy [1]. The therapy selected Yifeng point and Fengchi point, and the electrode connection was cross-connected between positive and negative poles «Yifeng Point - Fengchi point», that is, the positive pole of one electrode line was connected to the left Yifeng point, the negative pole was connected to the right Fengchi point, and the other electrode line was connected to the right Yifeng point, and the negative pole was connected to the left Fengchi point. The treatment strengthens the curative effect of traditional acupuncture, the special electrode connection mode, the pulse acupuncture treatment instrument sends out a current, the current can only form a loop between the positive and negative poles of the same electrode line; The path of the current is characterized by the two characteristics of minimum resistance and minimum distance, so that the current maximizes from the center through the neck, which is composed of nerves, muscles, blood vessels and other tissues «cylindrical composite conductor» (Figure 1). The conductor center is the brain stem, which contains many nerve nuclei, nerve conduction pathways, etc., and the cross current passes through the brain cadre to the maximum extent, strengthening the therapeutic effect of the brain for patients with encephalopathy. «Cross electroacupuncture» has been applied in clinical practice for many years, and the therapeutic effect is clear. Under the continuous application and scientific research of many scholars, it has been confirmed that «cross electroacupuncture» has a clear effect in promoting the recovery of consciousness in patients with severe encephalopathy, ventilator offline [2], improving swallowing function, and promoting the recovery of cough reflex [3].

Classic case introduction

In this case, part of the invaded phrenic nerve on the right side was removed during radical surgery for thymic carcinoma, resulting in postoperative respiratory failure, ventilator dependence, and difficulty in extubation. Through this case analysis, the understanding of peripheral nerve injury during operation was clarified from the Angle of etiology and pathogenesis of traditional Chinese medicine, and it was innovatively proposed that such injury

Figure 1:Connecting method of "Cross electro-nape-acupuncture"

Figure 2: Key nodes of patient condition change

belonged to the category of «injury of tendon» of traditional Chinese medicine, and the «cross electric acupuncture» therapy was applied to this patient, and the patient successfully realized the ventilator offline before discharge. The key nodes of patients' disease transformation are shown in Figure 2.

Figure 3: Patient's condition at admission.

Figure 4: Patient intermittently offline.

Figure 5: Replacing the metal tracheostomy sleeve.

Figure 6: The patient removed the tracheotomy cannula

Fengchi Point and Yifeng points locate near medulla oblongata of the brain stem, and many scholars have studied the anatomy. Under these two points, there are facial nerve stem, glossopharyngeal nerve, vagus nerve, and respiratory center distributed in the medulla oblongata, and cough reflex center with defensive reflex. Cross electroacupuncture can directly apply current to the medulla bulbar of the brain stem, improve the respiratory excitement of patients, enhance the respiratory excitement of the uninjured diaphragm, and increase their ability to do work. At the same time, stimulate the medulla cough reflex, promote the cough movement, accelerate the lung to empty the accumulated sputum, promote the recovery of pulmonary infection and accelerate the process of ventilator off-line. Modern studies have shown that electrical stimulation can accelerate nerve regeneration by promoting a series of Schwann cells and nerve growth factor (NCF) activities. In addition, the «cross electric needle» added on both sides of the neck can transmit electrical stimulation through the phrenic nerve to the severed end of the phrenic nerve injury during surgery, promote the NCF receptor to move towards the cathode, so as to enrich the NCF at the broken end and induce the axon to grow forward from the broken end. Under the detection of many monitoring instruments, «cross electroacupuncture» has not caused arrhythmia in patients, and has a high safety.

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ANALYSIS OF PERCUTANEOUS LASER GASIFICATION DISC DECOMPRESSION COMBINED WITH NEEDLE THERAPY FOR LUMBAR DISC HERNIATION

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Abstract. Percutaneous laser disc decompression (PLDD) was first reported in surgical operations and clinical efficacy by Professor Choy and Ascher in the United States in 1987.In the early 1990s, the Third Affiliated Hospital of Peking University took the lead in introducing this technology, with obvious curative effect, and has become a minimally invasive therapy for the treatment of lumbar disc herniation in recent years. Russian medical expert Evenko ▪ Andre ▪ Valenjingonovic has a unique understanding of the application of low energy laser treatment of cervical spondylosis and lumbar disc herniation, and believes that the damage is small, the recovery is fast, does not affect the follow-up treatment, so it is easy to be accepted by patients. Acupuncture and knife therapy is a new way to treat diseases based on the «nine needle therapy» in traditional Chinese treatment methods combined with modern surgery theory. At the same time, acupuncture and knife therapy has the characteristics of traditional acupuncture theory, and has the effect of promoting blood circulation, removing blood stasis and dredging meridians. At the same time, it has the function of loosening adhesion and contracture lesions in modern surgical medicine, which is an effective combination of Chinese medicine and modern medicine.

Keywords: percutaneous laser disc decompression; needle knife therapy; lumbar disc herniation; low back pain; minimally invasive spine treatment

In the mechanism of many therapies of lumbar disc herniation, the «theory of internal disc pressure reduction» is recognized by the majority of scholars. PLDD technology uses the principle of volume elastic modulus of the nucleus pulposus, adopts minimally invasive puncture method to use laser fiber to insert into the diseased intervertebral disc, and uses laser burning to radiate and solidify the nucleus pulposus, so as to reduce the internal pressure of the intervertebral disc and relieve nerve stimulation and compression . Secondly, due to its photobiological effect, the laser reduces the pain substances in the intervertebral disc, plays the role of anti-inflammatory and analgesic effect, and effectively improves the inflammatory stimulation of inflammatory factors in the nucleus pulposus. In addition, the immune function of the whole body after the operation effectively suppressed the immune response of the juvenile disc. Due to the three main causes for the formation of lumbar push disc herniation, a good treatment effect has been achieved.

Acupuncture therapy is using the modern theory of orthopedics on the basis of dredging, cutting, release, artificial into local new trauma, forming fresh wounds, accelerate local blood vessel reconstruction and blood flow, to improve local blood, promote fibrin exudation, which can effectively alleviate inflammation, and speed up the platelet and lymphocytes to tissue repair. At the same time, according to the local mechanics of the human body, the compensatory activation of the compensation and repair function of the human body, relieve the high tension state around the diseased tissue, reduce the pulling force of muscles and fascia, restore the shape of the damaged tissue, so that the disturbed small joints can be adjusted, and the dynamic balance of the body can be restored, so as to reduce the pain .

Objective

Clinical efficacy and safety of percutaneous laser disc decompression combined with needle therapy in lumbar disc herniation.

Materials and methods

Thirty-six patients who met the diagnostic criteria of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine from September 2021 to November 2022 were collected, and were divided into PLDD group and combined treatment group using random number tables, with 18 patients in each group. The mean age of the PLDD group was 43.76 ± 6.06 years, duration was 8.24 ± 2.58 years, and the combined treatment group was 44.84 ± 6.83 and duration was 7.87 ± 3.44 years, and the two groups were not statistically significant (P> 0.05).

Using the MaCNab efficacy evaluation criteria, the scores of lumbar and leg pain, lower limb numbness, walking function, spinal deviation, paravertebral tenderness, straight leg elevation test, back extension force, and heel reflex before and after the PLDD group and the combination treatment group. The data were observed once in March and after treatment in June for statistical analysis.

Both groups received PLDD and underwent laser vaporization using a 980 nm semiconductor laser therapy machine (Youfortis, Italy). The laser energy and vaporization time were adjusted

according to the actual status of the patient. The combination therapy group was treated with needle knife therapy 2 days after PLDD.

Results and discussion

Pre-treatment score in the PLDD group was 21.14 ± 4.37,14.25 ± 4,04, p <0.05,22.21 ± 3.21,12.22 ± 3.04 after treatment, and P> 0.05, indicating statistical significance. The PLDD group scored 8.84 ± 3.26 and 4.69 ± 2.63, and the 3.6 score was 7.14 ± 2.56 and 4.35 ± 1.17. Forward efficacy was compared between the two groups at P> 0.05.

Therefore, precutaneous laser gasification disc decompression combined with needle knife therapy has a significant effect, which can effectively relieve the lumbar and leg pain, lower limb numbness and improve walking function of patients with lumbar disc herniation.

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RESEARCH AND PROGRESS OF OBESITY IN TRADITIONAL CHINESE MEDICINE

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Abstract. Obesity is a high risk factor of cardiovascular disease, type 2 diabetes and other diseases, which has a serious harm to human health. At present the treatment of Western medicine is mainly based on lifestyle intervention, while there is no individualized treatment for the etiology. In recent years more and more attention has been paid to traditional Chinese medicine (TCM) for its rich theory and remarkable curative effect in the treatment of obesity. From the perspective of traditional Chinese medicine, this paper reviews the research and progress in the etiology, pathogenesis and treatment of obesity, in order to provide a theoretical basis for the further development of traditional Chinese medicine treatment of obesity.

Keywords: Obesity; Traditional Chinese medicine; Treatment

Obesity is a chronic disease caused by excessive increase of human adipose tissue. As a high-risk factor for cardiovascular diseases, type 2 diabetes, cancer and other chronic diseases, its development and spread seriously threaten human health [1], and it is listed by the World Health Organization as one of the ten risk factors leading to the occurrence of diseases . Studies have shown that the number of obese adults in the world has exceeded 500 million [2], and the number of obese people with BMI in China reached 1 in 2009. 2.8 billion, making it the country with the largest number of obese people in the world [3]. The prevention of obesity is of great significance for improving the health level and quality of life of residents and relieving medical pressure. At present, the cause of obesity is still unclear. It is often affected by the comprehensive effects of biological factors, psychological factors and behavioral factors [4], and is closely related to unhealthy lifestyle [5-6] and genetic factors [7]. At present, lifestyle intervention combined with diet, exercise and behavior intervention is the basic treating plan for obesity, which can be combined with western medicine and surgery when necessary . However, the treatment of western drugs has obvious adverse reactions, and the cost of surgical treatment is high. The long-term efficacy of the two drugs is still controversial , and further discussion is needed in clinical application. In addition, there is a lack of individualized treatment for the causes, and it is difficult for patients to adhere to intervention measures to change their lifestyle for a long time . There is still a long way to go in the research and treatment of obesity. Traditional Chinese medicine

(TCM) has a long history of understanding of obesity. It emphasizes that treatment must be based on the original, and has various treatment methods with obvious effects and no obvious side effects. In recent years, TCM has played an increasingly important role in the treatment of obesity. In this paper, the understanding of obesity in traditional Chinese medicine and the research progress in obesity treatment are summarized, in order to provide the direction and theoretical basis for the future research on obesity.

Results and discussion

Traditional Chinese medicine has been exploring the etiology, pathogenesis and treatment of obesity from the perspectives of theory and practice, and has formed the understanding with disciplinary characteristics. The treatment of obesity with traditional Chinese medicine focuses on adjusting the function of viscera, restoring the secret state of Yin and Pingyang into the body, and fundamentally solving the causes of obesity, so it is important to maintain the curative effect and prevent and cure complications Have unique advantages. However, the effect of traditional Chinese medicine is slow and the course of treatment is long. The mechanism of the effect of traditional Chinese medicine still needs to be further explored. External treatment of traditional Chinese medicine has few side effects, low cost, diverse methods and obvious advantages in comprehensive efficacy, but no systematic treatment plan has been formed yet. Therefore, further research is needed in the treatment of obesity in order to maximize the potential and advantages of traditional Chinese medicine in the diagnosis and treatment of obesity. In addition, correcting abnormal diet, exercise, work and rest patterns, and promoting the formation of healthy living habits of obese patients also plays an important role in the treatment of traditional Chinese medicine, and is crucial to the maintenance of weight and the promotion of health status in the future. At present, western medicine has formed a relatively complete diet and exercise intervention program, but its program is more general and does not fully consider individual differences, so patients often difficult to adhere to a strict diet and exercise program. However, TCM treatment takes syndrome differentiation as the principle and fully considers the individual factors of patients. Some studies have combined TCM or acupuncture and lifestyle intervention to form a comprehensive treatment , has achieved remarkable curative effect, but this combination of Chinese and Western comprehensive treatment program has not been fully studied and applied. If traditional Chinese medicine and lifestyle intervention are systematically combined to complement each other's advantages, they may make greater contributions to the treatment of obesity.

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TO EXPLORE THE PATHOGENESIS OF HYPERURICEMIA NEPHROPATHY BASED ON MITOPHAGY

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Abstract. Hyperuricemia nephropathy is a common metabolic kidney disease, and mitophagy is an important part of its pathogenesis. This article reviews the effect of hyperuricemia on mitochondrial autophagy in renal tubular cells, and the dual role and potential mechanism of mitochondrial autophagy in hyperuricemia nephropathy. Mitophagy can not only remove damaged mitochondria and protect the kidneys, but also participate in kidney inflammation and fibrosis, aggravating kidney damage. The main mechanisms and regulatory pathways of mitochondrial autophagy are also described here, and interventions targeting mitochondrial autophagy may be beneficial in hyperuricemia nephropathy.

Keywords: hyperuricemia; Nephropathy; Mitophagy; PINK1/Parkin pathway; Autophagy receptors

Hyperuricemia nephropathy is a type of kidney damage caused by excessive levels of uric acid in the blood, including acute uric acid nephropathy, chronic urate nephropathy, and uric acid nephrolithiasis. The mechanism of hyperuricemia is mainly purine metabolism disorders leading to excessive uric acid production or decreased excretion, and common triggers include high-purine diet, malignant tumors, seizures, excessive exercise, etc. Hyperuricemia is not only an important risk factor for gout, but also closely related to a variety of cardiovascular, metabolic and tumor diseases, posing a serious threat to human health. Mitochondrial autophagy is a special autophagy process that refers to the process by which mitochondria are degraded by lysosomes through autophagosomes. Autophagy plays an important role in maintaining mitochondrial quality and function, regulating energy metabolism, and coping with oxidative stress. In recent years, more and more evidence has shown that mitophagy is closely related to the occurrence and development of hyperuricemia nephropathy.

Objective

To investigate the effects and effects of mitophagy in the pathogenesis of hyperuricemia nephropathy.

Materials and methods

This article reviews the pathogenesis of hyperuricemia nephropathy and the role of mitophagy by reviewing relevant literature. Literature search mainly uses the following databases and keywords: PubMed, Web of Science, CNKI, keywords: hyperuricemia, nephropathy, mitophagy, PINK1, Parkin, NIX, BNIP3, FUNDC1, etc. The search period ranged from 2010 to 2021, the language was limited to Chinese or English, and the type of article was limited to the original study or review. Preliminary screening was carried out according to the titles and abstracts of the articles, excluding those that were not relevant or duplicated with the topic, and then further screening was carried out according to the full text to exclude the low-quality or unreliable data, and finally the eligible documents were included for summary and analysis.

Results and discussion

Mitophagy may have a dual role in hyperuricemia nephropathy. On the one hand, mitophagy protects the kidneys from hyperuricemia by clearing damaged or underfunctioning mitochondria, preventing the worsening of mitochondrial dysfunction and oxidative stress. On the other hand, mitophagy may also be involved in the process of hyperuricemia-induced renal inflammation and fibrosis, activate the inflammatory response by releasing mitochondrial DNA and mitochondria-related molecular pattern recognition receptors, or lead to abnormalities in the number and morphology of mitochondria by affecting mitochondrial biogenesis and kinetic balance, thereby exacerbating kidney damage. Therefore, mitophagy may be a double-edged sword in hyperuricemia nephropathy, which requires precise regulation under different conditions. The mechanism of mitochondrial autophagy is mainly divided into ubiquitin-dependent and non-ubiquitin-dependent pathways, of which the PINK1/Parkin pathway is the most widely studied ubiquitin-dependent pathway. The non-ubiquitin-dependent pathway mainly involves some autophagy receptor proteins containing LC3 interacting regions, such as NIX, BNIP3, and FUNDC1.

Wang [1] By studying the therapeutic effect of the traditional Chinese medicine Simiaosan on mice with hyperuricemia, it was found that Simiaoshan can reduce blood uric acid levels, improve renal function and tissue structure, and reduce renal oxidative stress and inflammatory response. At the same time, Simiaoshan can inhibit mitochondrial autophagy and division by promoting mitochondrial fusion and biogenesis, thereby maintaining mitochondrial homeostasis and function. Ma[2]

revealed the molecular mechanism by which ceramides dephosphorylate AMPK by activating protein phosphoesterase PP2A in acute kidney injury caused by ischemia-reperfusion, leading to mitochondrial autophagy damage and tubular cell apoptosis. It provides new therapeutic ideas and targets for mitochondria-related diseases of the kidney.

Conclusion

Renal mitochondrial function and homeostasis are closely related to the occurrence and development of hyperuricemia nephropathy, and mitophagy is an important way to maintain mitochondrial quality and function, but may also be involved in the process of renal inflammation and fibrosis.

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SCALP ACUPUNCTURE PROTECTS AGAINST NEURONAL FERROPTOSIS BY ACTIVATING THE ANTIOXIDANT PATHWAY IN RAT MODELS OF INTRACRANIAL HAEMORRHAGE

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Abstract. Intracerebral haemorrhage (ICH) can be a catastrophic event; even if the initial stages of the pathology were well-managed, a number of patients experience varied residual neurological deficits following the insult. Ferroptosis is a recently identified type of cell demise which is tightly linked to the neurological impairment associated with ICH. In the current work, the prophylactic impact of scalp acupuncture (SA) therapy on autologous blood injection murine models of ICH was investigated in order to establish whether SA could mitigate the secondary damage arising following ICH by moderating ferroptosis. The pathophysiological mechanisms associated with this process were also explored. It can be surmised that intervention with SA enhanced recovery after ICH by triggering the antioxidant pathway, p62/Keap1/Nrf2, and causing FTH1 and GPX4 upregulation, factors that participate in diminishing excess iron and thus in mitigating lipid peroxidation insults arising from ferroptosis following ICH.

Keywords: intracerebral hemorrhage, scalp acupuncture, ferroptosis, P62,Nrf2,GPX4, FTH1

Intracerebral haemorrhage (ICH) is the aetiology underpinning approximately 8-15% of annual cerebrovascular accidents in the United States.Worldwide epidemiological statistics have indicated that 24.6 individuals per 100,000 experience ICH; these figures are even greater in Asian communities . Concerningly, the incidence of ICH is rising on a global scale.

The primary injury is due to the compression of brain tissue by the hematoma and an increase in the intracranial pressure(ICP).Secondary injury is contributed to edema, by inflammation, disruption of the blood-brain barrier (BBB), overproduction of free radicals such as glutamate-induced excitotoxicity, reactive oxygen species (ROS) and release of hemoglobin and iron from the clot.

In particular, contemporary studies have focused on the detailed analysis of iron metabolism alterations and antioxidant influences following ICH, together with ways in which to defer neuronal death by moderating intracellular metabolism and stimulating antioxidant factors.

Objective

The aim of the current work was to evaluate the impact of SA application on ferroptosis in a murine model of ICH and to elucidate the possible pathways

Materials and Methods

160 healthy male Sprague-Dawley rats were randomly split into 5 cohorts, each comprising 32 rats, i.e. control, sham, ICH model, SA therapy and the deferoxamine(DFX)groups, respectively. Each cohort was subdivided into four subsets of 8 rats . These rats underwent SA therapy using Baihui acupoint-penetrating-Qubin acupoint on a daily

basis.

Ludmila Belayev tests were utilised for the characterisation of neurological damage. Haematoxylin-eosin staining was employed in order to determine the cerebral impact of the induced ICH. Malondialdehyde (MDA) and iron titres in peri-haemorrhagic cerebral tissues were appraised using purchased assay kits. Transmission electron microscopy delineated mitochondrial appearances within nerve cell bodies from the area of haemorrhage. Western blotting techniques were utilised in order to assay the degree of protein expression of NeuN, p62, Nrf2, Keap1, GPX4and FTH1. The frequencies of Nrf2, GPX4 and FTH1 positive cells, respectively, were documented with immunohistochemical staining.

Results and discussion

In contrast to the ICH cohort, rats receiving SA therapy demonstrated heightened expression of p62 protein and reduced Keap1 protein expression on days 1 and 3, respectively, following ICH. Western blot data revealed a marked rise in Nrf2 titres in the immediate phase concomitant with the rise and fall in p62 and Keap1 concentrations, respectively. The rats receiving SA demonstrated a greater number of Nrf2-positive cells; nuclear accrual of Nrf2 was higher on days 1 and 3 following ICH . Concomitantly, the immunopositivity data with respect to GPX4 and FTH1 were in keeping with the changes in the Nrf2 titres. In the SA therapy rats, the prevalence of FTH1-positive cells was raised, and iron titres were diminished. Immunopositivity for GPX4 implied that GPX4 levels diminished 6 hours and 3 days following ICH but rose following therapy with SA. The results also demonstrated that therapy with SA after ICH mitigated MDA and iron sequestration, diminished the appearance of contracted mitochrondria with increased outer mitochondrial membrane diameter within the nerve cell bodies, and suppressed neuronal ferroptosis.

In summary, the current research recognised the part played by ferroptosis in a murine model of ICH and offered evidence to suggest that therapy with SA safeguards cerebral tissue against immediate ferroptosis lipid peroxidation damage via its action on the p62/Keap1/Nrf2 pathway antioxidant system, thus resulting in enhanced nuclear accrual of Nrf2. The prophylactic influence of SA may arise through a moderating effect on the engagement of the p62 and Keap1 proteins. This process may amplify FTH1 expression stimulating the use of surplus iron and triggering activity of the antioxidant enzyme, GPX4 which, in turn, augments oxidation product eradication. Moreover, SA therapy, in keeping with DFX, can lead to the removal of surplus iron, diminish the injury arising from lipid peroxidation and encourage the functional recovery of neurological impairment.

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CLINICAL EXPERIENCE IN THE TREATING MILD-TO-MODERATE DEPRESSION WITH THE «HE TIAO DU REN AN SHEN ACUPUCTURE»

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Abstract. Depression is a syndrome characterized by significant and persistent low mood, which highly affects the patient's physical and mental health, as well as sleep and quality of life, and can bring great pain to the patient and their family. Effectiveness of acupuncture in the treatment of depression is exact, and it has made progress in clinical and animal experiments, and it is a unique and advantageous treatment. The clinical efficacy of the «He Tiao Du Ren An Shen Acupuncture» in the treatment of mild-to-moderate depression is remarkable, and there is no adverse reaction.

Keywords: Depression, Mild-to-moderate, He Tiao Du Ren An Shen Acupuncture, Acupuncture, Clinical experience.

Depression is a condition caused by a variety of reasons and characterized by low mood as the main clinical feature, which manifests itself in the form of joylessness, feelings of self-blame, difficulty in concentrating, low desire to eat, and ideas of self-harm or even self-murder. The WHO

estimates that about 350 million people worldwide suffer from depression [1]. It is therefore urgent to prevent and control the disease, as well as to seek safe and effective treatments for depression. I followed the master of national medicine, Professor Sun Shentian, and combined with my own years of clinical practice summarized, the use of « He Tiao Du Ren An Shen Acupuncture» for the treatment of mild to moderate depression, and achieved good clinical efficacy, the report is as follows.

Objective

In order to enrich the therapeutic methods of acupuncture treatment for depression and improve the quality of patients' life, the clinical efficacy of the «He Tiao Du Ren An Shen Acupuncture» in the treatment of mild-to-moderate depression has been investigated.

Materials and methods

51 cases were all mild to moderate depression patients who attended the outpatient clinic of the Department of Acupuncture and Moxibustion of the First Hospital Affiliated to Heilongjiang University of Chinese Medicine from December 2020 to December 2021, and met the diagnostic criteria for depression in the Chinese Classification and Diagnostic Criteria for Mental Disorders (CCMD-3) [2]. Adopting the «He Tiao Du Ren An Shen Acupuncture», Baihui(DU20), Yintang(EX-HN3), Shenmen(HT7), Taichong(LR3), Neiguan(PC6), Danzhong(RN17), Shenting(DU24), Ningshen, Sun's Abdominal Area 1, and Zhongwan(RN12). Operating method: In the lying position, after routine sterilization, 0.30 mm×40 mm disposable acupuncture needles were used. Baihui is 30° angle diagonal stabbing into the needle about 15 mm; Yintang to pinch the local skin down 15 mm; Shenting upward flat stabbing 25~40 mm; Ning Shen point (i.e., is located in the Yintang point straight on the 2.0 cm, upward flat stabbing 25~40 mm, the inner canthus of the eye straight on the parallel in the needle on both sides of a point, a total of three points) are upward flat stabbing 25~40mm. Danzhong downward flat prick 15mm; Sun's «abdominal area» (i.e., 0.5 inches below the protrusion of the sword and the left and right side of the open 0.5 inches, a total of three points) downward flat prick 1.5 inches, and the skin angle of 15 °; Zhongwan downward flat prick 25~40 mm. After obtaining the qi, the acupoints of the Du meridian were applied with twisting tonic method; the acupoints located in the Ren meridian were applied with twisting diarrhea; the remaining acupoints, Shenmen, Taichong, and Neiguan, were directly stabbed for 15-25 mm, with flat tonic and flat diarrhea method. The rest of the acupuncture points Shenmen, Taichong, Neiguan were stabbed directly for 15-25 mm. each time the needle was performed for about 1 minute, every 10 minutes the needle was performed once, and the needle was left in the needle for 30 minutes. A course of 7 days of treatment, 6 consecutive days after acupuncture rest 1 day, a total of 4 courses of treatment for the evaluation of the efficacy of treatment. The HAMD score reduction rate was used as the criterion for efficacy assessment. Using the nimodipine method, the score reduction rate of each item = (pre-treatment score - post-treatment score) / pre-treatment score × 100%.

Results and discussion

The overall effective rate of treatment was 94.1%. Cured: HAMD score index ≥75%, 15cases; obvious effect: 50%≤HAMD score index75%, 23 cases; effective: 25%≤HAMD score index 50%,10 cases; ineffective: HAMD score index <25%, 3 cases. Chinese medicine believes that the etiology and pathogenesis of depression is stagnation of qi, internal organs, yin and yang, qi and blood imbalance caused by the disturbance of the spirit or the loss of nourishment of the spirit. Because of the clinical manifestations of the patients with depression, and the «yin quiet and yang agitation», so the depression is «yin evidence». The overall pathology of depression is the disorder of yin and yang qi and blood in the internal organs, yin and yang failure, the fundamental treatment is to tonify yang and diarrhea yin, in order to achieve the yin and yang and adjust the work. Hence, the «He Tiao Du Ren An Shen Acupuncture» starts from the harmonization of the Dudu and Ren meridians, through the use of twisting tonic and diarrhea to tonify the yang meridian and diarrhea of the yin meridian acupuncture techniques, and finally achieve and harmonization of yin and yang, yin and yang balance, and relief of depression and tranquility of the purpose. This method can effectively improve the patient's depressive symptoms, and the therapeutic effect is durable and stable without adverse reactions, worthy of clinical promotion.

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TREATMENT OF POSTHERPETIC NEURALGIA BY FIRE NEEDLE JOINT ZHIZHEN COMBINED WITH CIRCUMFERENTIAL FILIFORM STABBING MANIPULATION

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Abstract. Postherpetic neuralgia (PHN) is manifested as pain of various nature, even accompanied by impairment of emotion, sleep and quality of life.The current Western medicine treatment is mainly drug analgesia, but it has drug adverse reactions. The combination of filiform and fire needle in the treatment of PHN has such feature as excellent effect, little side effect and low cost. This paper describes the theoretical basis and clinical effect of this method, with the purpose of providing new schemes for the treatment of PHN.

Keywords: postherpetic neuralgia, fire needle,red-hot needling,circumferential stabbing,Zhizhen stabbing, acupoint selection

1 Recognizing PHN in Chinese medicine

Herpes zoster (HZ), also known as snake sores, is usually caused by virus invading the spinal ganglion, which causes herpetic skin disease in the corresponding nerve innervation areas accompanied by burning and cutting pain.When the pain persists for 1 month or more after the rash has healed, it is defined as postherpetic neuralgia (PHN) , and surveys show that about 9% to 34% of HZ patients have PHN[1] ,the most common complication of HZ.According to traditional chinese medicine,HZ is always caused by the accumulated liver meridian fire ,a prolong the condition leading to PHN.

2 Treatment Measures

A systematic evaluation found that acupuncture can relieve pain in patients with PHN [2]. Currently, there are a variety of therapeutic means, millimetre needles, fire needles, stabbing and cupping, etc. These are often combined in clinical use. The author discusses the theory and effect of filiform combined with fire needles.

2.1 Zhizhen combine with circumferential stabbing method

In the theory of meridians and collaterals,PHN belongs to the category of collateral diseases. «Zhizhen», also known as skin needling, is one the twelve ancient stabbing methods in the Huangdi Neijing. <Lingshu•Guanzhen>: «Zhizhen method,yin pi ci zhi», which is used to treat superficial collateral diseases.Circumferential stabbing method, developed from the ancient needling method of"Yang needling", is suitable for localized skin lesions. Operation, around the pain, from the edge of skin along the skin into a number of needles, with needle tip reaching the base of the herpes.

2.2 Red-hot needling method

Red-hot needling, also known as fire acupuncture, is one of the nine ancient stabbing methods, which is both with the stimulation of the needle and the effect of warmth. It dissipates stasis, and induces the evil to reach outside. Research[3] has found that comparing to Western medicine and ordinary acupuncture, fire needle can significantly reduce the VAS score of PHN patients, and has advantages in terms of immediate pain relief time and total effective rate. In addition, the incidence of adverse reactions is stable and the safety is high. During the operation, the fire needle pricks the painful area. Depending on the size of it, the fire needle dense or scattered needling method is used.

3 Clinical example

The patient, a 60-year-old female,was initially seen in June, 2023, she was diagnosed with HZ two months earlier, with herpes located in the left breast, the anterior axillary line in the mid-axillary line transverse to the 4th and 5th ribs, and in the armpit. Now she is left with herpes site the swelling and tingling pain in the hypochondrium, accompanied by symptoms of insomnia. Upon examination, it was found that the herpes area was scabbed in a dark purple red color,leathery skin surface, hard to the touch, and there were local nodules. Her tongue was pale with white greasy fur, and the sublingual veins were stagnant.The left pulse was dull and thin, and the right was stringy. The diagnosis was PHN, Qi stagnation and blood stasis syndrome . Acupuncture (6 times a week) was used as treatment. Acupuncture prescription:1 Herpes local: filiform needle Zhizhen needling around the twirling and reducing method combined with fire needle scattered needling method, alternate use every other day.2 Spinal nerve node center: filiform needle prick C3-T1 left Jiaji points.3 Purgation: Quchi, Hegu,extraordinary point-Longyan.After two weeks, there were several spots in the center of the herpes area where the red color faded and the skin tone appeared. After three weeks, sleep improved, the color continued to fade, pain decreased, and the

nodules disappeared. After four weeks, symptoms nearly cured.

4 Brief summary

The prolonged course of PHN is often due to the patient's lack of Zheng Qi and Blood , stagnation of dampness and heat toxins, resulting in local obstruction of qi, blockage of meridians."Filiform needle combined with fire needle" dredge local meridian,dissipate blood stasis and reduce pain,which has been clinically proven to be effective.

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INTRODUCTION TO PROFESSOR HE SUN'S EXPERIENCE IN TREATING OCULAR DISEASES FROM THE PERSPECTIVE OF LIVER DEPRESSION

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Abstract. According to traditional Chinese medicine (TCM) theory, the relationship between the liver and the eyes is considered extremely close. Liver depression syndrome, caused by emotional disturbances and mental depression, is recognized as one of the most crucial factors contributing to the development of ophthalmic disorders. With over 30 years of clinical experience, Professor He Sun has formulated an academic ideology for treating ocular diseases from the perspective of liver depression based on the fundamental principles of TCM, established the «Smoothing Liver Qi and Opening Orifice Method» for the treatment of complex ophthalmic conditions. with remarkable clinical outcomes. In this paper, we summarized her valuable insights and experiences, offering new perspectives for the treatment of ocular diseases.

Keywords: ocular diseases; liver depression; smoothing liver qi and opening orifice method; treatment based on syndrome differentiation

Ocular diseases caused by "Liver Depression"

In Traditional Chinese Medicine (TCM) theory, the relationship between the liver and the eyes is particularly significant. TCM holds that «eyes are the orifice of liver» and the smooth circulation of liver Qi, sufficient of liver blood, and unobstructed of liver meridian form the foundation for maintaining clear vision and normal eye function. Conversely, disruptions in these aspects may result in ocular diseases. With the increasing stress in modern lifestyles, negative emotions often affect the liver's ability to regulate Qi flow, leading to the manifestation of «Liver Depression» syndrome. Patients with such syndrome often experience physiological changes in the eyes and may even develop to ocular diseases. In clinical practice, emotional factors are commonly recognized as significant contributors to the onset of many ocular diseases. Anxiety, depression and other negative emotions can cause the closure of the chamber angles, constriction of retinal blood vessels, and disruptions in retinal blood supply, leading to the occurrence and progression of ocular disorders [1].

Professor He Sun advocates that dealing with ocular diseases caused by «Liver Depression» the foremost approach should involve «soothing the liver Qi». Long-term depression can cause stagnation of Qi, leading to inadequate nourishment of the eyes. Thus, by regulating and promoting the smooth circulation of liver Qi while improving the patient's emotional well-being, makes possible to restore the nourishing effect of Qi from organs to the eyes, ultimately facilitating the recovery of visual function. The meridians serve as channels for the circulation of Qi and blood, build a direct connection between the liver meridian and the eyes. «Opening orifice» not only entails opening the eye orifices but also involves unblocking the meridians, allowing the Qi and blood ascend to the eyes, thereby promoting clear vision. The «Smoothing Liver Qi and Opening Orifice Method» is precisely based on these principles, lead to significantly improved therapeutic effects in the treatment of ocular diseases related to "Liver Depression" [2].

Smoothing liver Qi and opening orifice method

Based on the «Smoothing Liver Qi and Opening Orifice Method» Professor He Sun has successively developed a series of formulas named "Tong Qiao Ming Mu 1, 2, 3 & 4", targeting eye traumas, optic neuritis, retinitis pigmentosa, and optic nerve atrophy caused by glaucoma. These formulas integrate pattern differentiation with disease identification, significantly enhancing the clinical efficacy of TCM in treating these conditions. Commonly used medicinal herbs include Chai Hu, Shi Chang Pu, Yu Jin, Xiang Fu, Lu Lu Tong, Mu Dan Pi, Quan Xie, Chuan Xiong, Dang Gu, Yan Hu Suo, Su Geng, and Ge Gen, etc. The combination of these herbs plays a synergistic role in smoothing the liver Qi, relieving depression, and improving vision by opening the orifices.

Acupuncture is a commonly employed therapeutic method in TCM. Professor He Sun has also established the «Smoothing Liver Qi and Opening Orifice Acupuncture Method» which mainly targets acupuncture points along the Foot Jueyin Liver Meridian and Foot Shaoyang Gallbladder Meridian, in combination with localized ocular acupoints and extraordinary meridians, which has demonstrated remarkable efficacy in treating various ocular diseases. Among the localized ocular acupoints is the "Qiu Hou" (posterior of the eyeball) point, considered an extraordinary meridian point which might be an extension of the Liver Meridian. A new invented acupoint "Qiao Ming" (Brighten the orifices) are derived from clinical experience and are located 0.5 cm above and 2 cm lateral to the external occipital protuberance, which corresponds to the visual cortex in the brain. Clinical studies have found that needling this area can improve visual acuity and average light sensitivity in patients with optic nerve atrophy, ameliorate visual field defects, and modify visual evoked potentials, may play a role in modulating the function of higher visual centers [3].

Summary and prospects

Psychological factors play a crucial role in the occurrence of ocular diseases. Professor He Sun attaches great importance to the unique characteristics of ocular diseases related to "Liver depression". While focusing on the etiology, she also considers the pathological changes during the disease development from various angles. By employing the combined approach of smoothing the liver Qi and opening the orifices, she considered both the syndromes and the symptoms, thus enhancing the clinical efficacy of TCM in treating ocular diseases.

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STUDY ON EFFECTIVE COMPONENTS AND POTENTIAL MECHANISM OF HANSHI YI FORMULA IN THE TREATMENT OF COVID-19 IN MILD PHASE

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Abstract. In this study, we used the network pharmacology platform to integrate various data, and with the help of molecular docking technology, we constructed the network-related information of 20 traditional Chinese medicines and 100 active components in the Han Shi Yi formula, as well as the targets, biological processes, and signaling pathways associated with them, based on the combination of Chinese and Western medicines in the therapeutic regimen. This study provides a reference to in-depth research on the multi-components, multi-targets, and multi-pathways involved in the Han Shi Yi formula in the treatment of COVID-19.

Keywords: COVID-19, Han Shi Yi formula, network pharmacology, molecular docking

Novel coronavirus pneumonia (COVID-19) is an acute respiratory infectious disease with rapid infection and high mortality caused by SARS-CoV-2. It has been found that the spiking protein on the

surface of the virus can be sheared into two isoforms, S1 and S2, by transmembrane serine protease 2 (TMPRSS2), and that the receptor-binding domain of S1 binds to angiotensin-converting enzyme 2 (ACE2) to cause a conformational change in S2, which forms a fusion of cellular membranes and virions that releases the viral genomes in the host cytoplasm. These genomes encode non-structural proteins (NSP) and structural proteins (SP), with the former containing NSP5, a 3C-like protease (3CL-pro), which shears the replicate peptides to form non-structural proteins. RNA-dependent RNA polymerase (RdRp), formed by NSP7, NSP8, and NSP12, is an important substance involved in the replication and transcription process of SARS-CoV-2.

In Chinese medicine, COVID-19 is categorized as an «epidemic disease», and according to the different phenotypes of clinical symptoms, it can be classified into mild, common, severe, and critical types. Mild forms of COVID-19 include cold dampness and dampness-heat in the lungs, with mild clinical symptoms, such as fever, malaise, cough, nausea and vomiting, etc. It was found that the Hanshi Yi Formula, composed of a variety of traditional Chinese medicines, was effective in preventing and treating the Cold-Damp Depressed Lung syndrome of COVID-19.

Objective

To explore the therapeutic mechanism of Hanshi Yi Formula in the treatment of COVID-19 based on network pharmacology and molecular docking.

Materials and methods

Chemical components and targets of drugs contained in Hanshi Yi Formula were obtained from TCMIP V2.0, TCMSP databases. Genecards, HPO, and other databases were used to search targets of disease and symptoms. After obtaining potential targets on the Venny2.1.0 platform, protein-protein interaction analysis was carried out in the STRING database. Topological values were used to screen out the core targets and construct the network diagram of «Traditional Chinese Medicine-Components-Targets-Diseases/Symptoms-Pathways» by Cytoscape 3.7.2 software. Autodock 1.5.6 software was used to dock the screened active components with targets, and the binding energy was predicted and analyzed visually.

Results and discussion

There are 241 and 163 intersection targets of drugs, diseases, and symptoms, and 77 and 55 core targets. The Han Shi Yi formula contains flavonoids, alkaloids, and other components. Among them, the effective components with a high degree can combine with the disease-specific targets. We found that many flavonoids can regulate the signal pathways related to immunity and inflammation through core targets such as IL6, TNF, and TP53, and treat mild COVID-19 from antivirus and anti-inflammation.

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RESEARCH ON STROKE SYNDROME DIFFERENTIATION MODEL BASED ON DEEP LEARNING

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Abstract. The high incidence, high mortality, high disability rate and high recurrence rate of stroke have seriously threatened human life and health, resulting in the double burden of life and economy. Traditional Chinese medicine (TCM) has a good effect in promoting the functional recovery of patients, however, there is no unified clinical evaluation system of traditional Chinese medicine, so it is difficult to be widely recognized and give full play to its advantages. TCM needs to inherit the essence, keep the integrity and innovate, so the artificial intelligence (AI) algorithm based on deep learning (DL), with TCM theory as the core and Zang Fu syndrome differentiation as the principle, constructs a clinical auxiliary syndrome differentiation classification model with TCM characteristics in the recovery period of stroke (ischemic stroke), so as to explore a new mode of traditional Chinese medicine diagnosis of stroke, in order to realize the modernization of TCM from the perspective of AI.

Keywords: stroke, syndrome differentiation model, TCM diagnosis, deep learning, artificial intelligence

Ischemic stroke accounts for about 70% -80% of the total incidence of stroke. Atherosclerosis is an important factor leading to stroke. The main clinical features are numbness and weakness of limbs, language disorders and other neurological deficits. According to recent literature, stroke has become the first cause of death in China. TCM has a good effect in the treatment of stroke. However, TCM tends to be personalized and empirical, which leads to the failure to form a unified clinical evaluation system, so it is difficult to be widely recognized and give full play to its advantages. AI leads the development of science and technology. If it is applied in the field of TCM and used to build a modern diagnosis and treatment system of TCM, it will be a good opportunity for the development of TCM. Therefore, to explore a new mode of TCM diagnosis of stroke, in order to enable the modernization of TCM from the perspective of AI.

Objective

Through the establishment of the case database of the recovery period of the meridians in stroke, and based on the multimodal data combined with the artificial intelligence algorithm of deep learning, the traditional Chinese medicine assisted visceral syndrome differentiation model is constructed, so as to explore the new mode of traditional Chinese medicine syndrome differentiation and diagnosis driven by traditional Chinese medicine information data, and explore new ideas for the prevention and treatment of stroke.

Materials and methods

All cases were from the patients in the recovery period of meridians in stroke patients in the First Affiliated Hospital of Heilongjiang University of traditional Chinese medicine, the Second Affiliated Hospital of Heilongjiang University of traditional Chinese medicine and the First Affiliated Hospital of Liaoning University of traditional Chinese medicine from September 2019 to February 2021.

1. Establish the case database

The subjects who met the inclusion criteria were collected through the TCM diagnostic information acquisition system, including face images, tongue images and pulse diagnosis information; Collect basic data and relevant TCM four diagnosis information through the case report form (CRF), set up personal folders based on the above data and conduct TCM visceral syndrome differentiation. Data cleaning and data preprocessing were carried out for the above information, and the case database of stroke (ischemic stroke) in the recovery period of meridians was established after integration.

2. Construction of TCM assisted syndrome differentiation model

After data annotation in the case database, the training set and test set were randomly divided into 8:2 according to the subject ID number. The multi-modal data model was established by using face image, tongue image and CRF to predict the classification of Zang Fu syndrome types. At the same time, the face image, tongue image and CRF were used to predict the TCM syndrome types of single modal data. ResNet18 model was used for face image, VGG16 model was used for tongue image, and fully connected neural network model was used for CRF. Multimodal model is to splice the output of each modal model into a vector and fuse it through the full connection layer.

Results and discussion

Results of syndrome differentiation: 117 cases were caused by obstruction of collaterals by wind and phlegm, 82 cases were caused by phlegm-heat excess syndrome, 96 cases by Yin deficiency wind syndrome, and 205 cases by qi deficiency of blood stasis.

The accuracy rate of the syndrome discrimination model were as follows: 81.00% for facial images,

85.80% for tongue images, and CRF86.25%, multimodal «face + tongue + CRF» 89.00%; Sensitivities were 79.20% for facial images, 81.07% for tongue images, and CRF 87.45%, multimodal «face + tongue + CRF» 88.25%; The specificities were as follows: 81.20% for facial images, 82.86% for tongue images, and CRF 89.10%, multimodal «face + tongue + CRF» 89.75%; The AUC values were 0.8050 for the face image, 0.8135 for the tongue image, and CRF 0.8401, multimodal « face + tongue + CRF « 0.8725.

The above results show that the TCM assisted syndrome differentiation model based on multimodal data constructed by ResNet18, VGG16 and fully connected neural network model based on deep learning has high accuracy in the recovery period of meridians and collaterals in stroke (ischemic stroke), which can be used for the classification diagnosis and prediction of TCM syndrome types. The prediction results of the multimodal data model are slightly better than those of the single modal data model.

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PREPARATION TECHNOLOGY OF REFERENCE SUBSTANCE OF JINSHUI LIUJUN DECOCTION AND QUALITY STANDARD RESEARCH

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Abstract. Jinshui Liujun Decoction comes from Volume 51 of Jingyue Quanshu in Ming Dynasty.The prescription consists of seven traditional Chinese medicines, including angelica sinensis, prepared rehmannia root, dried tangerine peel, pinellia tuber, poria cocos, liquorice (roasted) and ginger. The main functions of Jinshui Liujun Decoction are regulating lung and kidney, relieving cough and phlegm, and relieving nausea. It is often used to treat respiratory diseases such as cough, asthma and chronic bronchitis. This prescription is made from Erchen decoction, which is still widely used in modern clinical practice. According to the opinions of classical famous prescriptions and the requirements of guiding principles, the reference substance of Jinshui Liujun decoction was studied in this paper, which laid the foundation for the next preparation. In this paper, the literature review, the preparation technology of Jinshui Liujun decoction reference substance and the quality standard of Jinshui Liujun decoction reference substance were studied.

Keywords: Jinshui Liujun decoction; Reference substance; Treatment methods; Preparation technology; quality standard

By consulting literature and ancient books, the source, prescription, clinical application, pharmacological effects, chemical components and pharmacological effects of the classic Jinshui Liujun Decoction were summarized, which provided theoretical support for the research on the preparation technology and quality standard of Jinshui Liujun Decoction.

Objective

To study the literature review, preparation technology and quality standard of the reference substance of Jinshui Liujun Decoction, a famous classic prescription, and to innovate its treatment and use.

Materials and methods

Traditional decoction was prepared by the method recorded in ancient books, and the extraction rate, extract content and contents of ferulic acid, verbascoside, hesperidin, ammonium glycyrrhizinate and 6- gingerol were determined. The best soaking time of Jinshui Liujun decoction was determined by single factor investigation. The water addition, extraction times and extraction time were investigated by L9(34) orthogonal test, and the most suitable extraction scheme was determined. The best concentration and drying conditions were determined by investigating the temperature and pressure of concentration and drying, and compared with the traditional decoction, all indexes were higher than the traditional decoction. The preparation process of Jinshui Liujun decoction reference substance was finally determined by verification test. Radix Angelicae Sinensis, Radix Rehmanniae

Preparata, Pericarpium Citri Tangerinae, Radix Glycyrrhizae and Rhizoma Zingiberis Recens in the prescription were identified by TLC, and ferulic acid, verbascoside, hesperidin, ammonium glycyrrhizinate and 6- gingerol were determined by HPLC. The established content determination method was investigated by methodology, and the final quality standard was determined through the content determination of 15 batches of samples.

Results and discussion

In this paper, the origin, prescription, clinical application and pharmacological effects of Jinshui Liujun Decoction were introduced in detail, and the chemical components and pharmacological effects of single medicinal materials were also summarized. From these reviews, it can be seen that Jinshui Liujun Decoction has good curative effect on respiratory diseases, and its clinical references are very extensive, which has far-reaching significance for the research of this subject. This topic is the basic research on the transformation of Jinshui Liujun Decoction from decoction to granular dosage form, and it also plays an active role in the research and development of new drugs.

Conclusion

Jinshui Liujun Decoction is a pure Chinese medicine preparation, with little toxic and side effects and definite curative effect, so it is of certain significance to study on it. In this subject, although the best extraction technology and quality standard of Jinshui Liujun Decoction have been determined, there are still many problems, for example, some medicinal materials have not established TLC and content determination standards, and the molding and quality standards of granules have not been studied. There is still a long way to go before the thorough study of the classic Jinshui Liujun Decoction, and further efforts are needed.

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THE EFFECT OF EXTRACT OF EXORCIZE PESTICIDE SACHET ON THE CYTOTOXICITY AND MRNA EXPRESSION OF NK CELLS

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Abstract. This article takes the prescription of exorcize pesticide sachet(PES), a master of Chinese medicine, as an example during the prevention and control of COVID-19.To study the «dual effect» of exorcize pesticide sachets on epidemic prevention, namely «immune intervention promoting effect» and «virus intervention inhibiting effect».The study aims to verify the promoting effect of immune intervention by examining the cytotoxicity and mRNA expression of exorcize pesticide sachet extract on NK cells.

Keywords: Extract of exorcize pesticide sachet;NK cells;K562 cells;TNF-α; Perforin; IFN-γ ; GZMB;

Objective

To verify the promoting effect of immune intervention by examining the cytotoxicity and mRNA expression of exorcize pesticide sachet extract on NK cells.

Materials and methods

Through previous research, we have learned that PES can promote the immune function of the body. The expression levels of TNF-α, Perforin, IFN-γ and GZMB mRNA at different time points after drug intervention were investigated in NK-92MI cells. Based on the results, 75:1, 50:1, 25:1, 12.5:1, 6.25:1, 3.125:1 Killing effect of K562 cells at different effect target ratio. Combined with killing effect and mRNA expression, the activity of effector protein was indirectly reflected.

Results and discussion

In order to verify proteomics information, one of the NK cell active pathways was selected for in vitro culture verification, and the results suggested that: Significantly promoting NK-92MI cell proliferation with volatile oil extract of Exorcize Pestilence

Sachet Nk-92mi cells are significantly more capable of killing k-562 cells when it is pretreated with different concentrations of Exorcize Pestilence Sachet volatile oil extract for 72h at 75:1, 50:1, 25:1, 12.5:1, 6.25:1 and 3.125:1 respectively.

Low and medium dose of Exorcize Pestilence Sachet volatiles promote the expression of TNF-α gene related to NK cytotoxicity for 12h, 24h and 48h (P< 0.01). The expression of TNF-α in high dose group was enhanced in a concentration-dependent manner (P<0.01) after 6h, 12h, 24h and 48h treatment (P<0.01).

Low dose Exorcize Pestilence Sachet volatiles for 12h, 24h and 48h promote the expression of perforin, a gene associated with NK cytotoxicity (P<0.01 or P<0.05) The expression of perforin, a gene related to NK cytotoxicity, was enhanced in a concentration-dependent manner (P<0.01) after 6h, 12h, 24h and 48h treatment with medium and high doses of essential oil extract of PES.

Low and medium dose Exorcize Pestilence Sachet volatile oil extract promotes the expression of IFN-γ gene related to NK cytotoxicity for 12h, 24h and 48h (P<0.01) In the high-dose group, the expression of IFN-γ was enhanced in a concentration-dependent manner (P<0.01) after treatment for 6h, 12h, 24h and 48h.

The expression of NK cytotoxic efficacy-related gene GZMB could be promoted in the low-dose group for 24h and 48h (P<0.01), and in the medium-dose and high-dose groups for 6h, 12h, 24h and 48h (P<0.01 or P<0.05). The expression was enhanced in a concentration-dependent manner (P<0.01).

Thus, PES intervention has the effect of promoting proliferation, increasing related mRNA content, and increasing lethality on NK-92MI cells.

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PREPARATION AND CHARACTERIZATION OF GRAPHENE OXIDE AS A PHARMACEUTICAL CARRIER

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Abstract. In this paper, the preparation method of graphene oxide material which meets the requirements of drug carrier is studied, and the five-day oxidation method is emphatically discussed. The results show that the yield of graphene oxide prepared by five-day oxidation method is 110.12%.Infrared detection shows that the sample has -OH absorption peak at 3416.30cm-1, and -COOH C=O at 1734.01 and 1622.03cm-1.The stretching vibration peak shows that there is a C-O-C stretching vibration at 1086.07cm-1, which proves that GO is connected with a large number of oxygen-containing groups, which makes graphene oxide easy to mix with water. The molecules form hydrogen bonds, which shows good water solubility. In addition, in the preparation process, the problems of small process safety factor and oxidation degree existing in the traditional method are avoided. The problem of low grade and the like is solved, and the problem that graphene is changed from orderly stacking to disorderly stacking due to too small particle size of graphene is solved. The results show that the five-day oxidation system. Preparation method is an excellent reparation method of graphene oxide.

Keywords: Graphene oxide, prepare, surface features, pharmaceutical carrier, material, water solubility

In this paper, the preparation method of graphene oxide was innovated, which took five days. Graphene oxide was prepared by oxidation, and infrared, ultraviolet and electron microscopy were used. The instrument focuses on the properties of graphene oxide samples. This method of the surface modification of graphene oxide is enhanced, and its active sites are increased. Adding and improving the stability. Graphene oxide prepared by five-day oxidation method Can be widely used in pharmacy, medicine and other fields , and can pass π-π Anti-tumor drugs are loaded by stacking or electrostatic action .

Objective

To study the suitable preparation method of graphene oxide to achieve high quality drug carriers.

Materials and methods

1. Yield and Form Initial Quality and Preparation of Graphite. The quality of GO products was compared, and the morphological characteristics

were observed and calculated Yield. The formula used is yield = output/input ×100%.

2. Particle size analysis Take GO products and redissolve them with deionized water, and use

Particle size measured by particle size analyzer (n=3).

3. UV analysis is carried out in the wavelength range of 200~400nm.Full-wavelength scanning, ultraviolet absorption characteristics of GO samples and GO standards Peak comparison.

4. Take appropriate amount of graphite, GO standard and GO sample for infrared analysis. Products, respectively, made into KBr tablets, infrared scanning analysis.

5. Transmission electron microscope analysis adopts Japan Electronics Corporation 200kV. Field emission JEM-2100 transmission electron microscope, for nano-scale GO Characterized by the microscopic morphology. According to the different gray levels in the photos,we can see the lamellar morphology of GO, and we can roughly analyze GO from another angle.The number of layers and their relative thickness can be used to evaluate the quality of the preparation method Condition.

6. Determination and analysis of carboxyl content After the carboxyl content can be determined,organic compounds connected by amidation or esterification in ontinuous reaction. The number of small molecules, polymers and biomacromolecules. This part of the experiment is adopted.The content of carboxyl group was determined by dialysis and back titration.

Results and discussion

In this paper, samples were prepared and characterized by five-day oxidation method.It is safe and highly oxidized. It can be seen that the dispersion of GO product is brown.Color and freeze-dried powder are brown loose sheets with slightly wrinkled microstructure.Flake type, the average yield is 110.12%, and the average particle size is in147.40nm.The yield is increased and the morphology is stable by ultraviolet spectrophotometer

The characteristic peak of GO sample is more obvious than that of GO standard, and it is oxidized. Analysis by infrared spectrometer shows that it is at 3416.30,C-O and C=O appeared at 1734.0, 1622.03 and 1082.07cm-1.The characteristic absorption peak shows that the oxidation degree is high and there are a lot of oxygen-containing groups on the surface group, for the future as a pharmaceutical carrier material to provide a solid foundation.

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CLINICAL STUDY ON THE TREATMENT OF POST-ISCHEMIC STROKE DEPRESSION BASED ON THE THEORY OF"FIVE VISCERA HIDING GOD"BY THUMB-TACK NEEDLING FOR SUBCUTANEOUS EMBEDDING IN BACK-SHU POINTS OF FIVE-ZANG

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Abstract. Post-stroke depression (PSD),as a common syndrome of concurrent emotional disorders after stroke, is mainly manifested by lack of pleasure, low mood and lack of interest.About 20%-40% of stroke patients evolve PSD [1].As the application of acupuncture in PSD becomes more and more in-depth, thumb-tack needling for subcutaneous embedding is gradually applied to this disease. The aim of this study is to observe the effect of thumb-tack needling for subcutaneous embedding at Back-shu points of five zang on post-stroke depression (PSD) through a clinical trial, to explore the efficacy and safety of thumb-tack needling for subcutaneous embedding at back-shu points under the guide of «viscera and symptom theory», and to compare the therapeutic effects of bilateral thumb-tack needling for subcutaneous embedding at back-shu points, unilateral thumb-tack needling for subcutaneous embedding at back-shu points and non-acupoints on the back.

Keywords: ischemic stroke;post- stroke depression (PSD); Back-shu points of five zang;thumb-tack needling for subcutaneous embedding;Five viscera hiding God

The essence of the skin and acupoint theory of traditional acupuncture and moxibustion can be extracted by pressing the thumb-tack needling for subcutaneous embedding to enrich the effect of channeling channels and collaterals, regulating internal organs, harmonizing Yin and Yang,

regulating wei qi and expelling qi and blood. Modern studies have also shown that acupuncture can stimulate the neuro-endocrine-immune network system to accelerate local blood flow and activate the immune response. Back Shu point is back waist bearing five viscera and six fu Qi.

PSD can be pathogenic to the five organs, and the disease has a recurring trend.

Applying the humb-tack needling for subcutaneous embedding treatment to Back-shu points of five viscera, then the liver qi is dispersed, the spleen is flourishing, the mind is calm, the essence qi is filled, the qi machinery is smooth, the brain is full, and the combined effect is conducive to the relief of PSD depressive symptoms. In addition, adhering to the principle of «staying quiet for a long time», thumb-tack needling for subcutaneous embedding provides long-term benign stimulation to the body in a stable, gentle and persistent manner, and has outstanding advantages in stabilizing the condition and reducing repetition [2].

Objective

The aim of this study is to observe the effect of thumb-tack needling for subcutaneous embedding at Back-shu points of five zang on post-stroke depression (PSD) through a clinical trial under the guide of «five viscera hiding god «.

Materials and methods

According to the criteria of diagnosis, inclusion and exclusion, 60 patients with PSD were selected from the rehabilitation ward of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine as qualified subjects, and were randomly divided into bilateral back Shu point group(bilateral thumb-tack needling for subcutaneous embedding), unilateral back Shu point group(unilateral thumb-tack needling for subcutaneous embedding) and back non-point group(Back-shu points of five zang outward side open about 1.5cm to 2cm) by random number table method, with 20 cases each.

All PSD subjects in the three groups received thumb-tack needling for subcutaneous embedding treatment 3 times a week (every Monday, Wednesday and Friday), and 4 weeks was a course of treatment.HAMD score and Mini-Mental State Examination (MMSE) score were performed for each subject before treatment and after treatment, and all possible adverse events were recorded in detail during the whole course of treatment.

Results and discussion

After 4 weeks of treatment, the total effective rate of the bilateral back-shu point group was 82 %, the total effective rate of the unilateral back-shu point group was 75 %, and the total effective rate of the back non-point group was 50 %. There were no adverse events during the whole course of treatment, so the thumb-tack needling for subcutaneous embedding therapy can be regarded as a safe treatment for PSD.

Based on the treatment of PSD with «Five viscera hiding God» , the clinical effect of thumb-tack needling for subcutaneous embedding at back-shu points of five zang is ideal in improving the depression state of patients after ischemic stroke. The unilateral and bilateral acupoints of back-shu points are equivalent in terms of curative effect, which has obvious advantages over non-acupoints on the back.

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CLINICAL OBSERVATION OF ELECTROACUPUNCTURE AT CERVICAL JIAJI POINTS COMBINED WITH ALPROSTADIL ON CERVICAL SPONDYLOSIS OF VERTEBRAL ARTERY TYPE AND ITS EFFECT ON HEMORHEOLOGY

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Abstract. To observe the clinical efficacy of electroacupuncture at Cervical Jiaji points combined with alprostadil in the treatment of cervical spondylosis of vertebral artery type and its effect on hemorheology. Methods: 108 patients with CSA were randomly divided into observation group and control group, with 54 cases in each group. The control group was treated with alprostadil; The observation group was treated with electroacupuncture at Jiaji points at the same time.The indexes of hemorheology were observed before and after treatment, and the clinical efficacy and safety were evaluated. Results: After treatment, the average blood flow velocities of HBV, LBV, PV and PF decreased significantly (P<0.05), and the observation group was better than the control group (P<0.05). Conclusion: Electroacupuncture at Cervical Jiaji points combined with alprostadil has a significant clinical effect on cervical spondylosis of vertebral artery type. It can effectively improve the hemorheology of vertebral basilar artery, which is worthy of further popularization.

Keywords: Electroacupuncture; Cervical Jiaji Points; Alprostadil; Cervical spondylosis of vertebral artery type; Hemorheology

Cervical spondylosis of vertebral artery type (CSA) accounts for approximately 20% -30% of the incidence of cervical spondylosis [1]. Its main cause is degenerative changes in cervical tissue, where cervical blood vessels are stimulated or even compressed by intervertebral discs, resulting in insufficient blood supply to the vertebrobasilar artery, leading to a series of symptoms such as paroxysmal dizziness, tinnitus, or nausea. Rotating the neck can induce or worsen symptoms, and in severe cases, unconscious sudden collapse may occur. In recent years, with the rapid increase in the number of mental workers, people have been working at the desk for a long time and the changes in their lifestyle, resulting in an increase in the incidence rate year by year, and the incidence gradually shows a younger trend, which seriously affects the work and quality of life of patients [2].

Objective

The efficacy of acupuncture intervention and prostaglandin in the treatment of CSA has been confirmed in clinical studies. In this study, electroacupuncture at cervical Jiaji point combined with prostaglandin was used to treat vertebral artery type cervical spondylosis, with significant therapeutic effects. The following report is presented.

Materials and methods

A total of 108 patients were selected from the acupuncture and moxibustion Department of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine, who were definitely diagnosed as CSA. On the basis of the control group, electroacupuncture was given to the cervical Jiaji acupoints. Acupoints were selected: a 0.5 inch cervical Jiaji acupoint was opened next to the C3~C6 spinous process. Using 0.40 mm × A 40 mm disposable sterile acupuncture and moxibustion needle was inserted 20~25 mm straight into the needle. After getting qi, the method of flat reinforcing and reducing was applied. The needle was twirled rapidly at a speed of more than 200 r/min for 1~2 min at each point. Using the SDZ-II electronic acupuncture therapy instrument, the same acupoints on both sides were connected to the positive and negative electrodes of the electroacupuncture The needle was left for 30 minutes, once a day, and the treatment lasted for 14 days. Before and after treatment, 4mL of fasting elbow venous blood was extracted from the patient, and whole blood high shear viscosity (HBV), whole blood low shear viscosity (LBV), plasma viscosity (PV), and fibrinogen (PF) levels were measured.

Results and discussion

There was no statistically significant difference between the two groups of patients before treatment (P>0.05). After treatment, HBV, LBV, PV, and PF in both groups were significantly reduced (P<0.05), and the observation group was lower than the control group (P<0.05).

Table Comparison of Hemorheology between two groups of cervical spondylosis of vertebral artery type patients ($\bar{x} \pm s$)

Group	N	Time	HBV/(mPa·s)	LBV/(mPa·s)	PV/(mPa·s)	PF/(g/L)
Observation group	54	Before treatment	6.45±1.41	12.03±2.76	2.06±0.32	4.55±0.74
		After treatment	4.33±0.76[1, 2]	7.92±2.63[1, 2]	1.46±0.25[1, 2]	3.86±0.63[1, 2]
Control group	54	Before treatment	6.51±1.36	11.96±2.94	2.13±0.38	4.62±0.71
		After treatment	5.28±0.92[1]	10.22±2.55[1]	1.81±0.27[1]	4.21±0.68[1]

Note: compared with the same group before treatment, [1] P<0.05; Compared with the control group after treatment, [2] P<0.05

Acupuncture can dredge the meridians, promote blood circulation and qi circulation, and relieve pain, which is one of the commonly used external treatments for CSA. The main causes of CSA are insufficient blood supply from the vertebral basilar artery, ischemia in the area of the Vestibular nerve nucleus, and acupuncture regulates the physiological curvature of patients, thus reducing the mechanical pressure of the uncinate vertebral joint on the cervical blood vessels; At the same time, acupuncture can regulate the stimulation of various factors on the cervical Sympathetic nervous system plexus. The cervical Jiaji acupoint is a unique acupoint outside the meridian, adjacent to the governor meridian and bladder meridian.

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ACUPUNCTURE THERAPY AND SEQUELAE OF PELVIC INFLAMMATORY DISEASE

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Abstract. The sequelae of pelvic inflammatory diseases are a group of upper genital tract infectious diseases commonly seen in women in the reproductive period, which are common in women in the sexually active period. Spid procrastination is difficult to heal.If the disease is not treated in a timely manner, it often leads to infertility, tubal pregnancy, chronic pelvic pain, and other diseases.Acupuncture and moxibustion, as a traditional treatment of Chinese medicine, is simple and has no side effects. SPID can be treated safely and effectively by stimulating acupoints to clear the viscera and meridians, improve meridian circulation, and alleviate pelvic symptoms.

Keywords: Acupuncture, sequelae of pelvic inflammatory, Chronic pelvic pain

It is a disease that occurs within the pelvic cavity, with lower abdominal and lumbosacral pain as the main symptoms, often accompanied by symptoms such as dysmenorrhea and sexual intercourse pain.Epidemiological studies have found that the incidence rate of this disease is increasing year by year, and it has become one of the most common diseases among women in childbearing period.

Western medicine often uses a combination of multiple antibiotics for treatment, but the efficacy is average and prone to recurrence, and may cause damage to the liver and kidneys. Surgery can easily cause postoperative pelvic adhesions and worsen the condition.Acupuncture and moxibustion belongs to the external treatment of traditional Chinese medicine, and acupuncture and moxibustion treatment can activate blood and dredge collaterals, clear heat and remove dampness, remove blood stasis and relieve pain by stimulating various acupoints.

Objective

If acute pelvic inflammatory disease misses the optimal treatment opportunity or is not treated thoroughly, it gradually evolves into chronic pelvic inflammatory disease as the patient's condition changes,bringing many inconveniences to women's daily life.Traditional Chinese medicine acupuncture

and moxibustion therapy can also give play to its own characteristics of mild and long-term treatment according to the chronic characteristics of the disease, so it has a good effect on chronic pelvic inflammatory disease.

Materials and methods

The main mechanism of acupuncture and moxibustion therapy is Acupuncture combined with moxibustion has the function of activating collaterals, while moxibustion has the function of warming and tonifying the airways the role of.Acupuncture stimulates local acupoints, stimulates the corresponding nerves in the pelvic floor, inhibits or reduces pain transmission, and thus achieves analgesic effects.

The Zusanli acupoint selected for acupuncture and moxibustion treatment is the stomach meridian acupoint, which has the effect of invigorating the spleen and drying dampness.The Three Yin Intersection is the gathering place of the three Yin meridians, which has the functions of promoting Qi, dispelling dampness, and nourishing Yin. Uterine acupoints can dissipate blood stasis, unblock collaterals, warm the uterus, and dissipate cold.Qihai acupoints nourish qi and warm yang, dissipate blood stasis and unblock collaterals.The Zhongji acupoint dispels cold and dampness, and absorbs kidney qi.

Results and discussion

When combined with various acupoints, it can directly reach the diseased area, achieving the effects of warming the middle, dispersing cold, resolving blood stasis, and relieving pain. At the same time, combined with moxibustion treatment, it can directly reach the diseased area, warm and unblock blood vessels, and warm Yang.

In addition, there are many acupuncture and moxibustion treatments for chronic pelvic inflammatory disease, including filiform needle acupuncture, warm needle therapy, and moxibustion treatment. Choosing acupuncture and moxibustion methods that are suitable for the patient's symptoms is conducive to the recovery of the patient's condition.

Acupuncture and moxibustion has a significant therapeutic effect on CPP caused by pelvic adhesion, which can effectively relieve patients' pain and improve their clinical symptoms and improve their quality of life.

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THE IMPACT OF LIFESTYLE ON GYNECOLOGICAL DISEASES

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Abstract. Lifestyle disorders refer to physical or psychological illnesses caused by unhealthy lifestyles. The common diseases are obesity, hypertension, coronary heart disease, stroke and other cardio cerebral vascular disease, as well as diabetes, some malignant tumors and some non infectious chronic diseases. The characteristic of lifestyle diseases is slow development and difficult to cure. And its harm is also diverse, and lifestyle diseases have become the number one killer of humanity, with 67% of deaths caused by lifestyle diseases in China.

Keywords: gynecological diseases, lifestyle, gynecology

The Classic of Internal Medicine - On Innocence in Ancient Times «states:» In ancient times, people who knew it were based on yin and yang, and were harmonious with martial arts. They ate and drank regularly, lived regularly, and did not work recklessly. Therefore, their form was consistent with their gods, and they lived to the end of their days. They passed away at the age of a hundred years... Sometimes, when evil wind was avoided, they were indifferent and nihilistic, and true qi followed them. Their spirit was kept within, and their illness was always safe.

Objective

By contemplating and exploring gynecology in cold regions, we can predict the direction of disease development, prevent diseases before they occur, alleviate women's suffering, and effectively save medical resources, reduce medical costs, and avoid excessive medical treatment. There is also a saying in the Classic of the Inner Canon: On the Innocence of the Ancients'. Today's people are not like this. They use wine as their slurry, recklessness as their constant, drunkenness as their way of entering the room, desire to exhaust their essence, and dissipation as their true nature. They do not know how to hold it full, but occasionally control their gods, and strive to be quick in their hearts, contrary to life and happiness. As a result, they decline after half a century.» The ancients also listed these incorrect lifestyles one by one, warning future generations.

Materials and methods

Common mistakes in lifestyle include the following aspects, wading in the rain and eating raw and cold food, and staying up late and not sleeping, excessive eye use. Below are the corrections and adjustments to the wrong lifestyle for health preservation.

Results and discussion

Sudden cooling and improper cold prevention measures; being exposed to rain and water for a long time in a humid and cold environment. Living in a cold and cool place for a long time, women's clothing is light and thin; Wash clothes with cold water during menstruation, and touch cold objects with both hands. Cold pathogenic factors invade through the skin's striate and enter along the meridians. External cold pathogenic factors trigger internal cold pathogenic factors, leading to illness. The acquired cold can be caused by factors such as a preference for cold food, blind weight loss, thin clothing, frequent abortions, staying up late, lack of exercise, and high life pressure. Inappropriate dietary intake can deplete the body's positive energy over time, resulting in insufficient yang qi, a tendency towards coldness, and a decline in yin and yang. When the positive energy is not enough to resist the evil energy, wait for the opportunity to take action. Cong Shi emphasized the importance of heavy insulation, suitable for cold and heat, which can to some extent prevent the invasion of cold pathogens and lead to the occurrence of diseases.

He Mengyao said, 'When a person is lying down, they belong to Yang, sleep belongs to Yin, Yang leads outside and kisses up, and Yin leads inside and kisses down. When they are lying down, blood belongs to Yin and calms down, and the five internal organs are all inside. The liver and kidneys are located below, which is the place where blood is stored. When they say that the liver and kidneys are suitable, what is it? When the liver and kidneys are moving, they are still stored, and when they are still moving, it is known that they are still stored. Therefore, it is said that storage is also received by the liver. In addition, «people lie on the blood and belong to the liver. The liver can see when it receives blood, the foot can walk when it receives blood, the palm can grasp when it receives blood, and the finger can absorb when it receives blood.» Therefore, a long time of vision can damage blood. Women are born with the liver. If they do not know how to control it, it will lead to various gynecological diseases, such as Uterine fibroid, Endometriosis, etc.

PCOS and dietary disorders are mutually causal, with a strong body and imbalanced fluid metabolism, which can easily lead to the accumulation of phlegm and blood stasis in the meridians and other areas, leading to the occurrence of diseases. There are many studies on infertility and Menstrual disorder of obese women in traditional Chinese medicine. From various studies, it can be seen that the ancient Chinese medicine for obese women usually caused phlegm and dampness endogenous due to weakness of the spleen and kidney, which led to the obstruction of the uterus, the blockage of Chong and Ren, and the failure of menstruation, which led to the obstruction of qi and blood circulation, the formation of blood stasis over time, the combination of phlegm and blood stasis, which caused ovarian enlargement, ovulation difficulties, and the inability to conceive.

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NEW STRATEGY FOR DEMENTIA TREATMENT - ACUPUNCTURE REHABILITATION METHOD RESEARCH PROGRESS

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Abstract. Dementia, a chronic progressive brain disease, seriously affects patients' quality of life and social functioning. As a comprehensive rehabilitation program, the Acupuncture Rehabilitation Method (ARM) combines Chinese acupuncture and modern medical rehabilitation techniques, and is based on holistic and evidence-based rehabilitation, making up for the shortcomings of acupuncture treatment in neurorehabilitation. Clinical practice in recent years has shown that ARM is more effective than traditional rehabilitation in improving functional impairment in dementia patients, demonstrating the potential and prospect of the ARM in the treatment of dementia. This article mainly focuses on the principle and mechanism of action of ARM in the treatment of dementia diseases.

Keywords: Dementia, Acupuncture Rehabilitation Method, Cognitive Function, Mechanisms

1. ARM Overview

ARM is a method of treating cerebral origin diseases by combining cephalic acupoint plexus stabbing with modern rehabilitation methods. This method was proposed by Prof. Tang Qiang1 and has been used by other medical practitioners. Its core guiding principle is «synchronization of acupuncture and rehabilitation, dynamic treatment, and holistic rehabilitation». Its core idea is to synchronize head acupuncture with modern rehabilitation in time and space, and to set dynamic rehabilitation goals according to the patient's condition in order to achieve the effect of holistic rehabilitation.

2. Application and mechanism of action of ARM in dementia treatment

ARM has a positive effect on the improvement of dementia-related cognitive functions. In ARM treatment of cognitive dysfunction, the cephalic stimulation areas are mainly selected from the frontal, parietal, and pre-parietal regions, while the cognitive function training focuses on the training of executive power, attention, and hand-eye coordination, among others. According to Tang Qiang2 et al, ARM can significantly promote cognitive recovery after stroke, improve patients' memory, and comprehension, and reduce plasma cortical levels.

As an integrative treatment, ARM provides patients with a safe, non-pharmacological option to effectively ameliorate the effects of depression, anxiety, and behavioral abnormalities by regulating physical and mental functions. Chen Jing3 et al. found that ARM can adjust the body's energy balance and promote blood circulation and normal function of the nervous system by stimulating specific acupoints. Meanwhile, ARM can also regulate neurotransmitters in the brain related to mood and anxiety and alleviate depressive symptoms, thus improving the psychological state of patients.

Dementia is often accompanied by the onset and development of neuroinflammation. Studies4 have shown that ARM can regulate the balance of the immune system and neurotransmitters when stimulating the cephalic acupressure plexus, reduce the release of inflammatory mediators, and promote the release of antioxidant substances and the scavenging of reactive oxygen species, thus reducing the damage of inflammation and oxidative stress on brain cells and neurons, and maintaining the stable state of the nervous system.

Good blood circulation is essential for the normal functioning of the brain. When stimulating the cephalic acupoint plexus, ARM promotes vasodilatation of the blood vessels in the head and neck, improves oxygen supply to the brain, increases oxygenation, and thus improves microcirculation and increases the supply of blood to the areas of the brain and nervous system. This improved effect helps to increase the oxygen and nutrient supply to the brain cells and promotes the recovery of brain function and the rehabilitation process of dementia patients.

Relevant basic research5 has proved that ARM may improve the survival environment of neurons, attenuate apoptosis, and promote the recovery of neurological function by promoting the phosphorylation of AKT and CREB, the downstream molecules of the PI3K/AKT/CREB signaling pathway, and up-regulating the expression of the proteins of p-AKT, p-CREB, and Bcl-2; and regulating the expression of the integrin αvβ3 and VEGF proteins, which can promote the neurovascularization and repair of blood vessels, and improve the blood supply, so as to improve cognitive function of patients with dementia.

In summary, ARM plays a role in improving the cerebral ischemic environment and attenuating apoptosis through multiple mechanisms, which promotes the recovery of neurological function and shows good results in the treatment of dementia. With further research and practice, the theory and application program of ARM will be further improved and expanded, and it is also expected to play a role in the treatment of other diseases.

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ACUPOINT EMBEDDING TO TREAT SPASTIC HEMIPLEGIA AFTER STROKE

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Abstract. Stroke is a common clinical cerebrovascular disease, with high morbidity, disability, mortality and high risk of recurrence.According to the theory of TCM acupuncture, acupoint embedding therapy uses absorbable surgical suture to produce lasting acupoint stimulation in the human body as an extension of acupuncture treatment. It has the effect of long-term acupuncture, can adjust the balance of Yin and Yang, and make the body adjust inside and outside. It is a traditional TCM treatment method.

Keywords: acupoint embedding, spastic hemiplegia, stroke

In recent years, although the survival rate of stroke patients has improved, most of them will leave different degrees of dysfunction, which aggravates the difficulty of rehabilitation training and treatment, and seriously affects the quality of life of patients. Increased muscle tension of the affected side of the limb is the most common limb motor dysfunction, accounting for about 80% of the dysfunction. Most of these patients have upper limb flexor muscle and lower limb extensor muscle spasm as the main manifestations, which specifically show clinical symptoms such as increased tension of the affected limb muscle, high movement resistance and poor balance and coordination of the affected limb. Effective prevention and control of spasm is the key to improve the efficacy of rehabilitation, and also the difficulty in clinical research. Previous studies have shown that the effect of acupoint line embedding therapy in the increase of muscle tone after stroke is positive, which can effectively improve the body movement function and improve the daily living ability of patients.

Objective

In recent years, a large number of studies, especially in clinical studies, have confirmed that acupoint embedding has a positive effect in improving the daily living ability, the degree of limb spasm and limb motor function of patients with stroke hemiplegia, and has made a significant contribution to improving the state of limb spasm after stroke. The reports of acupuncture treatment of limb spasm after stroke in recent years are reviewed in order to promote the modern research on the treatment of acupoint line embedding therapy in traditional Chinese medicine.

Materials and methods

In terms of increased muscle tension in recovery period after stroke, acupoint embedding therapy for respiration reinforcement and reduction can improve the clinical symptoms, relieve the degree of spasm, and improve the motor function and ability of daily living [1]. Acupoint embedding combined with neuromuscular electrical stimulation can significantly reduce muscle tension of upper limb spasm after stroke, it can improve limb motor function and promote rehabilitation process [2].The mechanism of acupoint embedding in improving limb spasm after cerebral ischemia-reperfusion may be related to the increase of GS expression in rat brain. Scalp acupuncture penetrating acupuncture from Baihui and Taiyang combined with Yangming meridian acupoint embedding therapy on spastic hemiplegia after stroke has a significant clinical effect, can obviously promote the recovery of limb

function, improve the hemiplegia and improve the clinical effect [3].Both acupoint embedding therapy and baclofen can relieve upper arm flexor spasm after stroke, but there is no significant difference between acupoint catgut embedding and baclofen. The antagonistic muscle groups of acupoints of acupuncture can be significantly improving hemiplegic limb spasticity after stroke, and in improving the clinical neurological deficit, improve motor function and activity of daily living is also good results, and clinical application [4].

Results and discussion

Acupoint embedding can «regulate qi and blood, smooth ying and wei». Through the search of relevant literature in recent years, the acupoints of spastic hemiplegia are most common in the upper limbs: Jianyu (LI15), Binao (LI14), Quchi(LI11), Waiguan (SJ5), Shousanli (LI10), Hegu(LI4), lower limbs: Xuehai (SP10), Weizhong (BL40), Chengshan (BL57), Yanglingquan (GB34), Yinlingquan (SP9), Zusanli (ST36), Sanyinjiao (SP6), Taichong (LR3), the treatment of spastic hemiplegia after stroke is a safe and effective green therapy, which will be more conducive to improving the curative effect of spastic hemiplegia after stroke and the promotion and application of acupoint line embedding therapy for spastic hemiplegia after stroke. Acupoint line embedding can not only stimulate the acupoints, but also leave the line for a long time, which has the advantages of short operation time, long duration, and high intensity of acupoint stimulation. In this study, the author applied acupoint embedding in the study of stroke spastic hemiplegia, aiming to provide a reference for the treatment of this disease.

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TRANSCRANIAL REPEATED ELECTRICAL STIMULATION OF THE HALO AUDITORY AREA TREATMENT CLINICAL EFFECT OF VESTIBULAR MIGRAINE

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Abstract. To observe the effect of transcranial repeated electrical stimulation in the treatment of vestibular head (Vestibular Migraine, VM), based on the traditional acupuncture treatment, transcranial repeated electrical stimulation, to provide new clinical ideas and new methods for acupuncture treatment of VM. Transcranial repeated electrical stimulation in the auditory halo area is more effective than the conventional acupuncture group.

Keywords: Vestibular migraine; transcranial repetitive stimulation; electric acupuncture; focal head acupuncture halo hearing area; clinical study

The concept of vestibular migraine (VM) was first proposed by the Boenheim in 1917, but it failed to attract academic attention at that time. This incidence is high, accounting for about 7% [1] vertigo clinic, is one of the important causes of vertigo. At present, this disease has become a research hotspot in the field of headache and vertigo at home and abroad [2].[3,4] Nowadays, triptan and opioids are used for acute phase, β blockers, antiepileptic and antidepressant drugs are used for prevention. However, these drugs are prone to toxic side effects, and can not control the recurrence, may produce drug dependence, the formation of drug overuse headache, and then aggravate the condition. Its important future research trend is to improve the clinical efficacy, accurate diagnosis and effective prevention and treatment. As a traditional advantage method of prevention and treatment of diseases in traditional Chinese medicine, acupuncture has a unique treatment of this disease. We applied transcranial repeated electrical stimulation of the auditory area

to treat this disease and achieved very good effect. The study will therefore be reported as follows.

Objective

To compare and observe the efficacy of transcranial repetitive electrical stimulation of the halo area in the treatment of vestibular migraine (VM) (hepato-positive hyperactivity), and to provide new clinical ideas and methods for the treatment of VM by acupuncture.

Methods

A total of 69 patients who met the diagnostic criteria for VM were randomly divided into control group and treatment group. In both groups, the basic treatment of flunarizine hydrochloride capsules was taken orally, and acupuncture acupuncture in the control group was treated with acupuncture points such as stun area, wind pool, Neiguan, Baihui, Fenglong, Taichong and Xingjian, and the needle was left for 30min after acupuncture was pricked. In the treatment group, on the basis of acupoint extraction in the control group, the transcranial repeat manoeuvre combined with electroacupuncture stimulation in the bilateral halo area was performed: that is, the transcranial repetitive stimulation manoeuvre in the halo area was connected to Changzhou INTI KWD-808I multifunctional pulse electrotherapy instrument after 2~3min, using continuous wave, frequency 100Hz, and then transcranial repetitive stimulation manoeuvre for 2~3min before needle initiation after 30min of power-on. Both groups were treated once a day, continuous injection for 6 days, rest for 1 day, 7 days as a course of treatment, a total of 2 courses of treatment. The scoring system, vertigo disorder scale, and visual analogue rating scale of the two groups were recorded before and after treatment to evaluate the difference in efficacy.

Results and discussion

The scoring system, vertigo disorder scale score and visual analogue scale scores of the two groups after treatment were better than those before treatment ($P<0.05$), and the data of the post-treatment treatment group were better than those of the control group ($P<0.05$), and the differences were statistically significant; 2. Comparison of clinical efficacy before and after treatment between the two groups: 8 cases were basically cured in the treatment group, 19 cases were effective, 6 cases were effective, 2 cases were ineffective, and the total effective rate was 94.29%; In the control group, 2 cases were basically cured, 10 cases were effective, 14 cases were effective, 8 cases were ineffective, and the total effective rate was 76.47%; The difference between the two groups was statistically significant ($P<0.05$). The results showed that the degree of vertigo in the treatment group and the control group after treatment was significantly reduced compared with before treatment, and the efficacy of the treatment group was significantly better than that of the control group.

Conclusion

Transcranial repetitive electrical stimulation and conventional acupuncture in the treatment of vestibular migraine have achieved good clinical efficacy, and the DARS score, DHI score and VAS score after treatment are significantly lower than those before treatment. 2. The treatment of vestibular migraine by transcranial repetitive electrical stimulation of the auditory area can significantly improve the patient's dizziness symptoms and headache degree, shorten the time of vertigo attack, and improve the quality of life and work of patients.

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CLINICAL OBSERVATION OF MANIPULATION OF MASSAGE AND RECTIFICATION COMBINED WITH CORE MUSCLE TRAINING IN THE TREATMENT OF ADOLESCENT IDIOPATHIC SCOLIOSIS

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Abstract. This clinic observation aimed to evaluate the clinical outcome of integrated treatment combined with core muscle training in adolescent idiopathic scoliosis. The 43 patients were recruited and divided into groups A, B and C.Manipulation of massage and rectification and core muscle training were used for treatment. There were significant differences in Cobb Angle among the three groups (Agroup16cases;Bgroup19cases;Cgroup8cases) (P<0.01).It is an effective method to treat adolescent idiopathic scoliosis using integrated treatment of manipulation of massage and rectification and core muscle training.

Keywords: manipulation; massage; rectification;core muscle training; adolescent idiopathic scoliosis

Adolescent idiopathic Scoliosis (AIS) is a three-dimensional deformity that characterized by an upper curvature of the coronal plane of the spine, sagittal imbalance and rotation in the transverse position[1] in the adolescents, witch the incidence is 2% to 3% [2].Adolescents grow faster, and the incidence of this disease increases from 10% to 15% per year [3], not only affect the body shape of children, but also cause spinal motor dysfunction, pelvic tilt, cardiopulmonary dysfunction and other diseases[4].Early detection, manipulation and physical therapy can achieve effective orthosis and avoid surgical treatment.

Subjects and methods

45 adolescent patients were initially diagnosed with scoliosis in the Rehabilitation Center of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine. During the treatment, 2 cases fell off, so 43 cases were included. The average age was 12.81±3.10 years from 7 to 18 years old. There were 21 males and 22 females. All the teenagers were allocated into three groups according to the growth and development. Children aged 7-12 who were at the rapid growth stage were allocated into group A; Children aged 13-15 who were in slow growth period were allocated into group B; Children aged 16 to 18 years old who were at a relatively stable stage were allocated into group C.

Manipulation of massage and rectification

This treatment is divided into two parts, the first part of traditional Chinese medicine massage, rubbing, shaking and other methods to loosen adhesion, relax muscles.

The second part is the spine rectification of massage: First, the atlantoaxial joint is rectified and the vision is adjusted so that the head is in a neutral position. Secondly, C3-C7 was treated with rotational positioning manipulation to correct cervical lateral flexion. Thirdly, the thoracic vertebra sequence was adjusted by thoracic compression method and supine thoracic compression method, and the thoracic traction method was used to improve the situation of the thoracic vertebra. Lumbar oblique manipulation was used to adjust T12-S1 joint sequence. The fourth part, prone position lower limb extension method combined with the press to correct the pelvic tilt. Finally, the whole spine was adjusted according to the direction of scoliosis and the torsion angle of the vertebral body by using a chiropractic gun.

Core muscle Training

This part included bridge exercise and four-point return training, 5 minutes for one group. Then carried out the breathing training, using abdominal breathing for 5 minutes as a group, training 1-2 groups, in order to improve spinal stability.

Results and discussion

After treatment, there were significant differences in Cobb angle among the three groups (P<0.01).

In this study, TCM spine reconstruction combined with core muscle training has got a satisfactory clinical efficacy in the treatment of adolescent idiopathic scoliosis. Manipulation in Traditional Chinese Medicine can reduce abnormal angle of the vertebral body under the intervention of external forces. Core muscle training is to help patients internally restore the flexibility and stability of the trunk muscle group to maintain the mechanical balance of the spine. Moreover, this treatment only needs to be treated once or twice a week for 20-30min each time, which reduces the burden on the children and their parents, time and cost greatly, and is worthy of further promotion.

Conclusion

It is an effective method to treat adolescent idiopathic scoliosis with integrated treatment of Chinese medicine spinal rehabilitation and core muscle training. Early intervention is more effective.

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ACUPUNCTURE-REHABILITATION THERAPY IMPROVED STROKE PATIENT'S SYMPTOMS IN NORTHEAST ASIA

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Abstract. Traditional Chinese medicine is the treasure of ancient Chinese science and the key to the treasure house of Chinese civilization[1]. The World Health Assembly will include Traditional Chinese medicine in the 11th edition of the Global Medical Outline in 2019. Acupuncture is an important part of Chinese medicine. Cities in Northeast China and the Far East of Russia belong to the cold region of Northeast Asia, and the incidence of stroke is high. Such geographical characteristics undoubtedly bring more challenges to stroke rehabilitation. To improve the therapeutic effects of rehabilitation after stroke, we reviewed through China National Knowledge Infrastructure and Wan fang databases the acupuncture-rehabilitation therapy (ART) and its effects on stroke patients in Northeast Asia and found that ART has a positive effect on post-stroke patients.

Keywords: acupuncture-rehabilitation therapy; Northeast Asia; stroke

Objective

To explore the effects of ART on stoke, intestinal flora and inflammatory factors in stroke patients. In northeast part of China, the winter temperature is low, the temperature difference is large, there are many cold waves, and the wind speed is strong. The incidence and mortality of acute cerebral vascular diseases, such as stroke, are significantly higher than those in other areas. Rehabilitation therapy or acupuncture therapy alone has not produced satisfactory results. However, it was reported that ART can systematically improve various functional disorders such as motor, sensory, speech and swallowing after stroke, with a total effective rate of 94.67% [2]. In order to find the effects of ART on stroke patients in Northeast Asia, in this study, we searched two databases, China National Knowledge Infrastructure (CNKI) and Wan fang and analyzed the results.

Materials and methods

We searched the databases of CNKI and Wan Fang in recent 10 years with "acupuncture-rehabilitation therapy", "stroke" and "Northeast Asia" as keywords to collect data of acupuncture-rehabilitation effects on stroke and the intestinal flora of stroke patients in Northeast Asia. Outcome measures include intestinal flora, inflammatory factors (including IL-23, IL-17, IL-6, and TNF-α), motor function, quality of life, and verbal function. SPSS26.0 software was used for this study.

Results and discussion

63 articles were collected, but 6 randomized controlled trial (RCT) articles [3]~[8]met our inclusion criteria and included in our study. Their results show that ART groups are significantly superior to acupuncture alone and to rehabilitation alone groups ($P < 0.05$) in the improvement of intestinal flora, inflammatory factors, motor function, quality of life, and verbal function. As for acupuncture, it appears that cluster needling of scalp point with long needles initiated by Professor Tang qiang of our university produced best effects.

Traditional Chinese medicine (TCM) believes that stroke has a complex pathological process. Wind and fire pathogens, phlegm turbidity and blood stasis are the main pathological factors, which can ascend, harass and impair the brain. Acupuncture can expel these pathological factors and activate blood. Modern medicine has proved that acupuncture therapy has various mechanisms

of action on cerebral ischemia [9]. Acupuncture can directly dilate blood vessels, promote oxygen metabolism and improve cerebral blood circulation, reducing secondary damage to brain cell morphology and function.

ART has become one of the important components in the treatment of stroke in TCM. Acupuncture therapy has exerted a profound influence on the northeast areas of China and other surrounding countries and regions, especially in the border cities of China and Russia.

There are many studies related to the treatment of stroke patients with ART, among which Zhang Li [8] analyzed the Effect of ART on Muscle Tension and Motor Function in Patients with Post-Stroke Lower Limb Spasm. We found in our studies that ART can significantly restore motor function of stroke patients, ART can effectively improve muscle tone and motor function in stroke patients with lower limb spasm.

China's northeast and Russia's Far East cities are the cold northeast Asia regions. Chinese experts have studied the relationship between daytime temperature and stroke incidence in 16 cities in China from 2007 to 2013. The results show that low temperature climate is closely related to the occurrence and mortality of stroke, and mostly involves men and the elderly.

Conclusion

ART has a positive effect on post-stroke patients. It can improve inflammatory factors, motor function, quality of life, and verbal function, helping improve the total effective rate of treatment and improve the prognosis of patients. Due to the similarities of geopolitical factors, ART can be promoted in Blagoveshchensk and other Russian regions.

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CLINICAL OBSERVATION ON POINT INJECTION BY DANHONG INJECTION COMBINED WITH 1064NMQ-SWITCHED LASER IN THE TREATMENT OF MELASMA

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Abstract. To observe the clinical efficacy of Danhong injection combined with Q-switched laser in the treatment of facial Melasma. Sixty-four patients with facial Melasma were selected from the beauty department of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine, and randomly divided into two groups. The control group was treated with acupoint injection of Danhong injection, while the observation group was treated with 1064nm Q-switched laser on the basis of the control group. Before and after treatment, VISIA skin detector image analysis was used to evaluate patient related indicators, and SOFT 5.5 skin detector was used to detect skin properties. The treatment effects of the two groups were observed. There was no significant difference in VISIA skin image scores between the two groups of patients before treatment (P>0.05). After treatment, the symptoms of both groups of patients were significantly improved, and the therapeutic effect of the observation group was better than that of the control group (P<0.05). After treatment, the observation group was significantly better than the control group and before treatment in all indicators (P<0.05).

Keywords: Melasma, acupoint injection, 1064nm Q-switched laser, Danhong injection

Melasma, also known as «lather spots» and «liver spots», is a common acquired pigmented skin disease. In clinical practice, it is mainly manifested as symmetrical butterfly shaped plaques, distributed in the cheek, orbit, forehead and other parts, and the color is light brown, dark brown or light black. Modern medicine believes that the pathogenesis of Melasma is not clear, but relevant literature points out that the high level of estrogen in blood is the main reason for Melasma [1-2] At present, Laser treatment of facial pigmentation is increasingly widespread. The author used acupoint injection of Danhong injection, combined with 1064nm Q-switched laser to treat facial Melasma, and achieved good clinical therapeutic effect.

Objective

To observe the clinical efficacy of acupoint injection of Danhong injection combined with 1064nm Q-switched laser in the treatment of facial Melasma.

Materials

Danhong Injection (Beitong BuChang GuoyaoZhunzi Z20026866), 5ml syringe (Jierui GuoxieZhunzi 20163141593), 1064nm Q-switched laser therapy instrument (laser therapy instrument, Wuhan Qizhi Laser Technology Co., Ltd.)

Method

Control group: Patients lie flat, disinfect the acupoints that need to be injected with iodophor three times, extract 5mL of Danhong injection with a 5mL syringe twice, a total of 10ml, and inject Ganshu, Pishu, Shenshu, Guanyuan, Qihai, Zusanli, Quchi, Hegu, etc. Each time, 10 acupoints were selected basing on disease differentiation, with 1mL of each acupoint pressed for a moment; Once a week, 4 weeks is a course of treatment, with a total of 3 courses of treatment [3].

Observation group: patients were treated with laser method on the basis of treatment in the control group: patients' faces were treated with low energy 1064nm Q-switched laser therapeutic apparatus. The spot diameter was 6mm, the frequency was 5~10Hz, and the wave width was 5~15ns. And the treatment was stopped when the patients' faces were slightly red. The above treatment is given once every 4 weeks as a course of treatment, with a total of 3 courses of treatment.

Results and Discussion

After treatment, the symptoms of both groups of patients were significantly improved, and the therapeutic effect of the observation group was better than that of the control group (P<0.05). After treatment, the observation group was significantly better than the control group and before treatment in all indicators (P<0.05).

According to the principles of no blood stasis, no spots, no spots for prolonged illness, the method of promoting blood circulation and resolving blood stasis runs through the entire process. Danshen and Honghua have the effect of promoting blood circulation and resolving stasis. Acupoint injection is based on traditional meridian theory and uses modern techniques to purify drugs, allowing drugs to enter the meridians and stimulate the acupoints. The dual effects of drugs and acupoints are used to achieve the goal of treating diseases. At present, Using 1064nm Q-switched laser to treat Melasma can effectively penetrate the skin of patients to a certain extent, and the light beam can quickly reach the subcutaneous pigment mass of the body to promote the absorption of pigment mass, which has a certain effect on most pigmented skin diseases.

Conclusion

In this study, acupoint injection of Danhong injection combined with 1064nm Q-switched laser

has a good clinical effect on repairing the skin barrier function of patients with Melasma, improving the pigmentation of patients, and improving the skin texture of patients, which is worthy of clinical promotion.

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RESEARCH PROGRESS ON THE INTERVENTION OF TRADITIONAL CHINESE MEDICINE IN ADOLESCENT SLEEP FROM THE PERSPECTIVE OF CHINESE TRADITONAL CULTURE

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Abstract. Health Preservation Techniques in Traditional Chinese Medicine (TCM) mainly include Baduanjin, Five-Animal Exercises, Tai Chi, Yi Jin Jing and so on. The sleep of college students is related to the growth of college students and has become one of the hot topics in higher education in recent years. In recent years, through many practical studies, it has been found that the TCM Health Preservation Techniques has features and advantages that cannot be ignored in the process of influencing college students' sleep and health care. However, there are many problems in TCM Health Preservation Techniques, such as a wide variety, small sample size, short intervention time and lack of treatment mechanism. This paper reviews the research progress of Baduanjin, Five-Animal Exercises, Tai Chi, Yi Jin Jing and other special techniques on the sleep of college students.

Keywords: Traditional Chinese Medicine Health Preservation Techniques; sleep; Baduanjin, Five-Animal Exercises; Tai Chi; Yi Jin Jing

Traditional Chinese Medicine Health Preservation Techniques is a valuable and excellent intangible cultural heritage in China. It is a kind of physical and mental exercise guiding exercise produced under the guidance of traditional Chinese medicine health rehabilitation and basic theories of traditional Chinese medicine. It mainly includes traditional health maintenance and health care techniques such as the Baduanjin, Five-Animal Exercises, Tai Chi , Yi Jin Jing and other special techniques. Insomnia, Chinese medicine called «sleepless», «inability to close eyes», «inability of supination» and so on. According to statistics, 15%-38% of college students have varying degrees of sleep disorders. The incidence of the disease is increasing year by year, younger, easy to repeat, the trend of increasing co morbidity. It is easy to cause anxiety, depression or fear in college students, and even mental illness, resulting in obvious decline in cognitive function, which seriously affects the quality of life of college students. In recent years, as the country vigorously develops the cause of traditional Chinese medicine, the concept of «health care» and «preventive treatment of disease» has gradually gained popularity, and the Traditional Chinese Medicine Health Preservation Techniques has caused extensive discussion among many scholars in improving the sleep quality of college students.

Baduanjin is one of the most widely spread and influential health care methods in China. It originates from the idea of «preventive treating no disease» in traditional Chinese medicine. It mainly regulates the operation of Qi and blood of the human meridians through body guidance, improves the function of viscera, and achieves the effect of fitness and disease treatment.

Tai Chi is a very representative and excellent boxing in traditional Chinese martial arts. The formation process is perfectly integrated with the theory of Yin and Yang, the theory of the five elements, the theory of meridians and collaterals, and the theory of guided vomiting. Tai Chi makes the body and mind in a balanced and harmonious state because of its characteristics of combination of static and static, slow and gentle, soothing and so on.

Five-Animal Exercises is a set of traditional health exercises developed by the famous doctor Hua Tuo in the Eastern Han Dynasty, who carefully studied the living habits of five animals: tiger, deer, bear, ape and bird. In summary, Five-Animal

Exercises have the advantages of rich content, simple and easy to learn, and remarkable fitness effect.

«Healthy Qigong · Yi Jin Jing» is a kind of exercise method to strengthen the body and strength in the fitness Qigong, «Yi» means to change, improve and enhance, «jin» refers to the muscles, meridians and muscles, and «Jing» has the meaning of guide and method. Hence, Yi Jin Jing exercise is mainly through the use of some specific methods to exercise the body, promote the movement of human qi and blood, enhance the strength of the limbs and improve the physiological functions of various tissues and organs of the human body.

In recent years, with the vigorous development of the cause of traditional Chinese medicine, the concept of «health care» and «treatment of disease» has gradually gained popularity, and traditional Chinese medicine exercises have caused widespread discussion in improving the sleep quality of college students with insomnia. TCM Health Preservation Techniques is a kind of self-regulation process to assist the healthy qi, improve the state of the body and take the initiative, play the role of «self-repair» of the human body. Traditional TCM exercises such as Baduanjin, Tai Chi, Five-Animal Exercises and Yi Jinjing are one of the important methods to cure insomnia. College students through the continuous practice of these health exercises can not only improve insomnia, but also enhance their immunity, enhance their perseverance.

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INTRODUCTION OF SIGNALING PATHWAYS IN THE TREATMENT OF TENNIS ELBOW WITH FIRE ACUPUNCTURE

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Abstracts. Tennis elbow is a common symptom of elbow pain, and its main pathophysiologic mechanisms involve inflammatory responses and abnormal signaling pathways. Fire Needle Therapy accelerates the recovery of tennis elbow by modulating inflammatory signaling pathways, relieving pain and inflammatory symptoms, and promoting the repair and regeneration process of muscles and tendons.

Keywords: fire needle, tennis elbow, signaling pathway

Tennis elbow is a common elbow disorder, mainly characterized by elbow pain and dysfunction, which seriously affects the quality of life of patients. Traditional treatments include physical therapy, medication and surgery, but the effect is limited. In recent years, fire acupuncture treatment has received widespread attention as an emerging treatment method.

Objective

Fire needle therapy relieves pain and promotes muscle and ligament repair by stimulating specific acupoints, improving local blood circulation, and regulating inflammatory response and neuroimmune function.

Materials and Methods

This article was searched on the China Knowledge Network database using the keywords «fire acupuncture therapy», «tennis elbow» and «signaling pathway». The literature included must be published from 2010 to the present and related to the signaling pathway of fire-acupuncture therapy for tennis elbow.

Results and Discussion

The signaling pathways in the treatment of tennis elbow with fire-acupuncture mainly include inflammatory response, neuroimmune regulation and tissue repair.

1. Inflammatory response pathway:

Fire needle therapy regulates the inflammatory response and reduces pain and swelling by stimulating acupoints. It has been found that fire acupuncture treatment can reduce the expression

of inflammatory mediators, such as TNF-α, IL-1β and IL-6, and inhibit the activation of inflammatory cells and the excessive release of inflammatory responses. In addition, fire-needle therapy is able to regulate inflammation-related signaling pathways, such as the NF-κB pathway and the MAPK pathway, to inhibit the occurrence and development of inflammatory responses. [1]

2. Neuroimmunomodulatory pathway:

Fire needle therapy regulates the neuroimmune function and reduces pain and spasm by stimulating acupuncture points. It has been found that fire acupuncture treatment reduces the release of neurotransmitters, such as glutamate and nitrite, reducing neuronal excitability and the occurrence of spasms. In addition, fire-needle therapy is able to regulate neurotransmitter-related signaling pathways, such as the GABA pathway and the 5-HT pathway, and regulate the balance of neuroimmune function. [2]

3. Tissue repair pathway:

Fire needle therapy promotes tissue repair and regeneration by stimulating acupuncture points. It has been found that fire acupuncture treatment can increase blood flow and oxygen supply, promoting the generation of new blood vessels and tissue repair. In addition, fire needle therapy is able to regulate signaling pathways related to cell proliferation and differentiation, such as the VEGF pathway and the Wnt/β-catenin pathway, which promotes the repair and regeneration of muscles and ligaments. [3]

Conclusion

The signaling pathways of fire-needle therapy for tennis elbow mainly include three aspects: inflammatory response, neuroimmune regulation and tissue repair. By regulating these signaling pathways, fire needle therapy relieves pain and promotes tissue repair, thus achieving the effect of treating tennis elbow. However, there are relatively few studies on the signaling pathways of fire-acupuncture therapy for tennis elbow, and further studies are needed to clarify its mechanism of action and clinical application value.

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RESEARCH PROGRESS IN INNOVATION OF TRADITIONAL CHINESE MEDICINE DIAGNOSIS

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Abstract. This article introduces the innovative progress of Traditional Chinese Medicine (TCM) diagnosis research. By reviewing relevant literature reports in the past three years, we organized and analyzed the new progress in the research of TCM diagnosis. According to the analysis, we found that the innovative diagnosis research of traditional Chinese medicine mainly focused on the diagnosis method research, syndrome research, technology and equipment research, in addition to the scale research and Knowledge graph construction, and was connected with Precision medicine. The research needs further deepening and optimization.

Keywords: TCM diagnosis, innovation research, summary

The development of TCM should adhere to basing on the tradition and making innovations. The innovation of TCM diagnosis is an important component.

Objective

By collecting and screening the relevant literature on the research on innovative diagnosis of TCM, this paper analyzed and summarized the current situation, excepting to be helpful to show the innovative diagnosis of TCM.

Materials and methods

This article focuses on the China National Knowledge Infrastructure (CNKI) Chinese academic journal full-text database and published

related works as the main sources of information. Through intensive reading and screening of the retrieved literature, it reviews the latest research progress in the field of TCM diagnostics.

Results and discussion

In summary, TCM diagnostic research has achieved many innovative developments. The research mainly involves research on diagnostic methods, syndromes, and technical equipment. (1)The innovation of diagnostic research fully reflects the application of intelligent technology. (2)Syndrome research includes epidemiological investigation of syndromes, standardization of syndromes, and animal models of syndromes. (3)The clinical application of traditional Chinese medicine diagnostic technology equipment research involves tongue diagnostic equipment, thermal infrared imaging, meridian detection equipment, and joint application of multiple equipments.

In addition, the development of the scale and the construction of the Knowledge graph are important ways for the modernization and standardization of TCM. And the thinking mode of TCM diagnosis and treatment based on syndrome differentiation, measures based on three factors and prevention of disease has gradually been found to be similar to that of western Precision medicine, which is an opportunity for TCM quantification and internationalization.

Conclusion

Innovative research in TCM diagnosis mainly focuses on diagnostic methods, syndromes, and technical equipment. In addition, there are the development of the scale and the construction of the Knowledge graph, and diagnostic thinking model of TCM under Precision medicine. However, there are still various problems that require in-depth research and optimization.

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STUDY ON THE MECHANISM OF THE EFFECT OF MOXA TUBES ON CAROTID ATHEROSCLEROSIS IN RATS WITH PHLEGM AND BLOOD STASIS COMBINATION

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Abstract. Atherosclerosis (AS) is a chronic inflammatory disease with high morbidity and mortality worldwide and is the pathological basis of cardiovascular and cerebrovascular diseases [1].The pathogenesis of AS involves activation of pro-inflammatory signalling pathways, expression of cytokines/chemokines, and increased oxidative stress [2]. In Chinese medicine identification theory, atherosclerosis belongs to the inversion of the symptoms, this deficiency and the other, i.e., the heart, spleen and kidney are mostly deficient, so it is appropriate to diagnose and treat it with the therapy of benefiting the qi and activating the blood.

Keywords: Moxa tube acupuncture therapy; phlegm and stasis type; carotid atherosclerosis; traditional Chinese medicine; rats

Objective

To investigate the mechanism of the effect of moxa needle on carotid artery atherosclerosis with phlegm and stasis in rats.

Materials and methods

Rats were modelled for carotid artery atherosclerosis with phlegm and stasis by the «needle-control and wire-embolism method», and were randomly divided into a model group, an acupuncture group and an ai-tube-acupuncture group after successful modelling, the model group was not treated and routinely reared, while the acupuncture group underwent acupuncture on the Hundred Hippocampus acupoints and acupoints 4 mm to the left and right of the side, and the ai-tube-acupuncture group underwent ai-tube-acupuncture treatment by combining Fengchi acupoints and blood-supplying points on both sides on top of the acupuncture[3]. In the acupuncture group, acupuncture was performed on the Baihui point and points 4 mm to the left and right, while in the ai-tube-acupuncture group, ai-tube-acupuncture was combined with the selection of the Fengchi point and the blood-supplying point on both sides. Statistical analyses were performed on the neurological and behavioural functions of the rats in each group at 7 and 14 d before and 14 d after treatment; the results of the positive expression of FGF-2 and NCAM mRNA were statistically analysed at 14 d after treatment; and the results of the brain tissue of rats in each group were analysed at 7 and 14 d after treatment. Brdu+/NeuN+ and Dil+/Brdu+/GFAP+ cell counts in the brain tissues of rats in each group at 7 and 14 d after treatment.

Results and discussion

After 7 d and 14 d of treatment, the ayurvedic needle group was superior to the model group and the acupuncture group in terms of neurological function scores, behavioural function scores, and the expression of Dil+ /Brdu+ /NeuN+, Dil+ /Brdu+ /GFAP+ cell counts in the brain tissues of the rats under the confocal laser microscope ($P < 0.05$ or $P < 0.01$); after 14 d of treatment, the FGF-2, FGF-2 and FGFAP cell counts of the rats in the ayurvedic needle group were measured by the fluorescence quantitative PCR. After 14 d of treatment, fluorescence quantitative PCR was used to detect the expression of FGF-2 and NCAM mRNA, and the ai-tube needle group was superior to the model group and the acupuncture group ($P < 0.05$ or $P < 0.01$). Conclusion:Ai tube needle therapy not only can promote the recovery of nerve and behavioural functions in rats with carotid atherosclerosis of phlegm and stasis type, but also can promote the proliferation and differentiation of neural stem cells and reduce the damage of nerve cells.

Ai tube needle, is the Heilongjiang University of Traditional Chinese Medicine Professor Zhou Haichun based on the traditional theory of warm acupuncture and moxibustion, the traditional form of warm acupuncture and moxibustion to improve, the formation of a new treatment, has now been awarded a utility model patent (Authorised Publication No.: CN 216985680 U). T. Needling and moxibustion are combined with each other, and the heat generated by burning moxa stimulates acupoints, which improves the body's qi and blood and promotes blood circulation, thus reducing tissue pain and spasm; in addition, moxibustion can enhance the body's immune system, strengthen the body's ability to scavenge oxygen free radicals, and prevent the excessive release of oxygen free radicals, reduce cell damage, and improve blood circulation by exerting anti-inflammatory and antioxidant effects [4]. At the same time, acupuncture points can also promote the endogenous regulation of the organism, exerting the efficacy of raising Yang and lifting the trap, warming the meridians and channels, as well as relaxing the meridians

and channels, removing blood stasis and activating blood circulation. The matching of the two makes the benefits of benefiting qi and expelling blood stasis and activating blood circulation complement each other [5].

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PROGRESS IN ACUPUNCTURE AND MOXIBUSTION TREATMENT OF MELASMA

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Abstract. Melasma is a kind of yellowish brown or dark brown patches on the skin. With the progress of the disease, the pigment is becoming more and more calm, and the color gradually deepens, which seriously affects the beauty. As a common and frequently occurring disease in clinical practice, this disease has a long course and no conscious symptoms. In recent years, acupuncture therapy, as a widely accepted treatment method, has been widely observed in clinical practice and has definite therapeutic effects. On the basis of acupuncture, various auxiliary therapies are combined to enhance the therapeutic effect. This method is safe, simple, effective, and can prevent the occurrence of diseases. In this way, acupuncture and moxibustion can play a role in adjusting the balance of yin and yang, regulating body immunity and improving endocrine. On the basis of a large number of literature studies, this paper summarizes the treatment of Melasma by acupuncture and moxibustion in recent years.

Keywords: Melasma; Acupuncture and moxibustion; Clinical treatment

Objective

Melasma is a common acquired pigmentation dermatosis in clinic, which is mainly manifested as facial pigmentation dermatosis. It is often symmetrically distributed on the forehead, cheeks, etc. It mostly presents yellowish brown patches, no scales, no itching, and clear boundaries [1]. The pathogenesis of Melasma is attributed to the increase of Tyrosinase activity in the body, which ultimately leads to the increase of melanin secretion, mainly due to the damage of oxygen free radicals and the dysfunction of the Endocrine system, which determines the cause of the formation of color spots. The occurrence of Melasma is mainly related to the deficiency of zang fu organs, the operation of channels and collaterals, and the poor blood circulation. The disease location is mainly in the liver, spleen, and kidney [2]. The standard of TCM dialectical classification of Melasma is not completely unified, and different physicians have their own classification methods. Now, acupuncture and moxibustion is usually used to treat various diseases, including Melasma. It has been considered as an extremely effective method to treat Melasma.

Materials and methods

In clinical practice, blood letting puncture and cupping therapy were used to treat Melasma. The patient's lung shu, heart shu, spleen shu, liver shu, and kidney shu were taken. The scattered needling method (circular needling with the local center of the back shu point as the center) was used. The local disinfection was carried out with a sterilized cotton ball, and then the blood collection needle was scattered for 15 times. (Cups of different sizes were selected according to the patient's own constitution and location). The cupping intensity should be within the patient's tolerance range, and the cupping time should be 12-15 minutes, After local swelling and skin turning purple, lift the jar and wipe it clean with a disinfectant cotton ball. As is well known, the Backshu acupoint corresponds to the human organs, so acupuncture at the corresponding Backshu acupoint can regulate the qi and blood of the meridians and the yin and yang of the organs, thereby achieving a benign regulation. Clinically,

auricular points were applied to treat female Melasma. The auricular points selected were lung, heart, endocrine, liver, spleen, kidney and internal genitalia. For patients with weak spleen and stomach, Zhongwan and Spleen Shu points can be added. In addition, there is point injection therapy. The Active ingredient of compound angelica injection are angelica, chuanxiong and safflower extracts. Angelica has the function of enriching blood and activating blood circulation; Red flower promotes blood circulation, unblocks meridians, and dissipates blood stasis; Chuanxiong has the effect of promoting blood circulation, promoting qi circulation, and dispelling wind. The combination of acupuncture and medicine can make the meridians unobstructed, Qi and blood abundant, and enhance the appearance, achieving the effect of freckle removal and beauty. Choose bilateral Zusanli and bilateral Sanyin as the basic acupoints. For patients with liver qi stagnation, acupoints and liver shu should be selected; For those with spleen deficiency and excessive dampness, acupoints such as Spleen Shu and Yin Ling Quan should be used; During treatment, 1mL of compound Angelica injection was injected into each acupoint, resulting in a very significant effect. Catgut embedding is to embed absorbable Catgut at the acupoint, and Catgut can play a role in continuous acupoint stimulation; In addition, it stimulates the immune response of the human body, achieving the effect of adjusting the balance of yin and yang in the human body. Choosing Fei Shu, Pi Shu, Gan Shu, Shen Shu, Xin Shu, Zu San Li, and San Yin Jiao has a significant effect and can adjust the organs and balance yin and yang.

Results and discussion

Melasma has many treatment methods and different curative effects. Both Chinese and western medicine have their own advantages. Western medicine has the disadvantage of treating symptoms but not the root cause, so the treatment is easy to recur, and long-term use of drugs may have adverse drug reactions; However, a hundred schools of traditional Chinese medicine have come together, each with their own insights and rich clinical experience. Due to the lack of long-term efficacy, it is difficult to accurately evaluate clinical efficacy. The clinical treatment of Melasma should effectively combine traditional Chinese medicine with western medicine in order to better study and treat Melasma.

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ANALYSIS OF MEDICATION PATTERNS IN THE TREATMENT OF RHEUMATOID ARTHRITIS WITH YANG DEFICIENCY BASED ON THE THEORY OF CONSTITUTION

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Abstract. Rheumatoid arthritis (RA) is an autoimmune disease, often characterized by symptoms such as swelling and pain in the joints around the body, and belongs to the category of «bi disease» in traditional Chinese medicine. Physical phenomenon is an important manifestation of human life activities. This paper collected the case data of the outpatient and inpatient department, analyzed the characteristics of the prescription, and summarized the medication law of rheumatoid arthritis with yang deficiency based on the constitution theory, in order to provide ideas for clinical medication.

Keywords: constitution theory; medication patterns; rheumatoid arthritis; physical constitution; yang deficiency substance

Rheumatoid arthritis (RA) is a systemic autoimmune disease with erosive arthritis as its main manifestation. It is characterized by symmetrical and persistent Polyarthritis, mainly involving small joints such as hands and wrists, which is mainly characterized by pain, swelling and decreased function of the involved joints [1]. Constitution is an inherent and relatively stable characteristic of individuals in terms of morphological structure and functional activities, formed by innate inheritance and acquired factors, and is related to psychological personality [2].

Objective

To collect basic information and prescriptions from RA patients who meet the inclusion criteria, analyze and summarize the medication patterns for treating RA patients with yang deficiency, in order to provide medication ideas for clinical treatment of RA.

Materials and Methods

The selected cases were all from the patients diagnosed as rheumatoid arthritis in the outpatient and inpatient departments of the Rheumatology Department of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine from December 2021 to January 2023. Select patients with Yang deficiency syndrome who meet the 2010 ACR/EULAR classification diagnostic criteria and related inclusion criteria for RA, and collect basic patient information. Summarize all the obtained information and establish an Excel database. Standardize the collected prescription Chinese medicine names and import them into the «Traditional Chinese Medicine Inheritance Calculation Platform (V3.0)» to obtain analysis results, summarize the medication patterns for treating Yang deficiency rheumatoid arthritis.

Results and Discussion

By using the «Four Qi Analysis» module to analyze 96 prescriptions of traditional Chinese medicine for patients with Yang deficiency, warm drugs are used the most frequently, up to 628 times (37.92%), and can play a role in warming and tonifying yang qi, warming the kidney and liver, and warming the meridians and promoting blood circulation. Secondly, there were 460 times (27.78%) of sedative drugs, which played a role in regulating yin and yang and calming the medication properties. By analyzing 96 prescriptions of traditional Chinese medicine for patients with yang deficiency using the «Five Flavors Analysis» module, sweet flavored drugs are used the most frequently, up to 890 times (34.00%), playing a role in tonifying the middle and benefiting qi, and relieving pain slowly. The second is the bitter medicine 840 times (32.09%), which mainly plays a role in dryness and dampness.96 prescriptions of traditional Chinese medicine were analyzed using the «Meridian Analysis» module, and the results showed: 818 times for liver meridians (17.85%), 808 times for spleen meridians (17.63%), and 698 times for kidney meridians (15.23%). The prescription covers 137 herbs in total, and the top 5 herbs in frequency are Poria cocos, Cinnamomum cassia, vinegar Corydalis yanhusuo, liquorice and achyranthes bidentata. The 'Function Analysis' module was used on 137 traditional Chinese medicines with 96 prescriptions. The first three types of drugs are tonifying deficiency, dispelling wind and dampness, and promoting blood circulation and resolving blood stasis. Statistical analysis was conducted on 96 prescriptions using the 'medication mode' module, with a support level of 29 and a confidence level of 0.9. The drug combination with the highest frequency was vinegar corydalis tuber and poria cocos, followed by poria cocos and cinnamon twigs. Based on clinical practice, the commonly used drug pair is poria cocos and cassia twig. The core drug combination is vinegar corydalis tuber, liquorice, radix achyranthis bidentatae and mistletoe.

Conclusion

Patients with yang deficiency RA commonly use warm and mild drugs from the perspective of the four qi, and sweet drugs are the most commonly used in the five flavors. The main meridians of the drugs are the liver, spleen, and kidney meridians. The commonly used drugs are tonic, wind dampness dispelling, blood activating and stasis removing. The commonly used drugs are poria cocos, cinnamon twigs, vinegar corydalis tuber, liquorice, achyranthes bidentata, the commonly used drug pairs are poria cocos and cinnamon twigs, and the core drug combination is vinegar corydalis tuber, liquorice, radix achyranthis bidentatae and mistletoe.

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ANALYSIS OF TRADITIONAL CHINESE MEDICINE SYNDROME DISTRIBUTION AND RELATED FACTORS IN PATIENTS WITH CORONARY HEART DISEASE COMPLICATED WITH ANXIETY

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Abstract. Coronary Atherosclerosis heart disease (CHD), referred to as coronary heart disease (CHD), is the number one killer seriously endangering human health. In clinical practice, the Case fatality rate rate of coronary heart disease ranks first in the world, and shows an obvious upward trend. The age of onset is younger. At the same time, with the acceleration of the pace of life and the increase of social pressure, the relationship between cardiovascular disease and psychosocial disease is increasingly close, The abnormality of «double heart» has attracted wide attention. Research shows that psychological intervention can effectively reduce the mortality of cardiovascular disease by improving anxiety symptoms[1]. Western medicine treatment is to give antianxiety drugs on the basis of conventional treatment such as crown enlargement, anticoagulation, anti plate, and myocardial nutrition. Although these drugs can alleviate physical anxiety in a short period of time, the adverse reactions caused by their side effects can not be ignored. In contrast, traditional Chinese medicine treatment of this disease has the characteristics of small side effects, good patient compliance, and ideal treatment effect[2]. Therefore, from the perspective of Traditional Chinese medicine, it is of certain significance to study the distribution of TCM syndrome types and related factors of coronary heart disease with anxiety state for improving the clinical efficacy of traditional Chinese medicine.

Keywords: Coronary heart disease; Anxiety state; raditional Chinese Medicine Syndrome; Qi deficiency; Blood stasis

Objective

Through a retrospective analysis of 241 patients with coronary heart disease combined with anxiety state, the distribution characteristics of traditional Chinese medicine syndromes and related factors were explored.

Materials and methods

We selected 241 patients with coronary heart disease and anxiety status admitted to our hospital from January 2020 to December 2021 as the research subjects, collected clinical data of the patients, established a database, and conducted statistical analysis on the data to summarize the distribution patterns of traditional Chinese medicine syndromes in the patients.

Results and discussion

The distribution of TCM syndromes in 241 patients with coronary heart disease combined with anxiety state is Qi deficiency and blood stasis syndrome, heart kidney non intersection syndrome, Qi stagnation and phlegm stagnation syndrome, Qi stagnation and blood stasis syndrome, and Qi stagnation and heat transformation syndrome. Most of them are middle-aged and elderly people over 60 years old. The incidence rate of women is higher than that of men. The average course of disease is 5.9 years. The longest hospitalization is 31 days, with an average of 13.18 days. The incidence is mainly concentrated in autumn and winter. The related causes are related to hyperlipidemia, hypertension and smoking ($P<0.05$). From the distribution of traditional Chinese medicine syndromes, the main syndrome types are Qi deficiency and blood stasis syndrome>Heart kidney disharmony syndrome>Qi stagnation and phlegm stagnation syndrome.

As a result, patients with coronary heart disease combined with anxiety are mainly middle-aged and elderly women; Qi deficiency and blood stasis syndrome is the main syndrome type; Long duration of illness and hospitalization; The incidence is closely related to hyperlipidemia, hypertension, and smoking, and active intervention should be taken.

The distribution results of traditional Chinese medicine syndrome types in this study show that the main types are Qi deficiency and blood stasis syndrome, heart kidney disharmony syndrome, and Qi stagnation and phlegm stagnation syndrome. However, the highest proportion is Qi deficiency and blood stasis syndrome (53.94%). Therefore, we can preliminarily summarize that patients with coronary heart disease combined with anxiety state are mostly characterized by Qi deficiency, with blood stasis, phlegm turbidity, and Qi stagnation as the criteria, and Qi and blood imbalance running through the entire process. Based on a comprehensive analysis of the course of disease, tongue pulse, and related accompanying diseases, mild anxiety patients have a relatively long course of disease and more accompanying diseases and related risk factors. Prolonged illness can easily consume qi, and qi deficiency can lead to blood circulation stagnation, while mental and psychological loss can lead to anxiety and emotional tension, with the main focus being on deficiency of the original qi. Severe anxiety patients, on the other hand, are mainly characterized by evidence of phlegm and fire, and have a short course of disease. Due to excessive consideration of the disease in the early stages, the spleen is damaged, resulting in the loss of health and vitality of the spleen. Phlegm turbidity

is generated internally, and qi stagnation and phlegm obstruction turn into fire over time, leading to the occurrence of severe anxiety. Therefore, in treatment, it is necessary to distinguish the severity in order to have a targeted approach to tonifying deficiency and reducing excess.

Conclusions

To sum up, the incidence rate of coronary heart disease with anxiety state is high, and both affect each other. Anxiety seriously affects the prognosis of patients with coronary heart disease. Therefore, in the clinical diagnosis and treatment process, it is necessary to strengthen the understanding of the heart rate of patients with coronary heart disease evaluate the physical state, adopt timely psychological counseling and targeted medication treatment, and leverage the advantages of traditional Chinese medicine in treating «dual heart disease». This study also preliminarily summarized the distribution of syndrome types in patients with coronary heart disease combined with anxiety state, and found that qi deficiency and blood stasis are the main syndrome types of coronary heart disease patients with anxiety state. Age, gender, course of disease, hypertension, hyperlipidemia, smoking, and alcohol consumption are related risk factors. The research results suggest that active intervention in risk factors should be taken in clinical diagnosis and treatment, providing some reference for early medication and psychological intervention to prevent and treat this disease.

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RESEARCH PROGRESS ON THE LAW OF TRADITIONAL CHINESE MEDICINE FOR ACNE VULGARIS

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Abstract. The etiology of acne is complex, recurrent attacks, prolonged and long-term, the incidence increases year by year, and has a certain impact on appearance, psychology and mood. Studies have shown that TCM has great advantages in treating acne and reducing the recurrence rate, and the use of TCM treatment to achieve the treatment goal of relieving acne and reducing recurrence by adjusting the yin and yang balance and endocrine metabolism of the body's internal environment. Traditional Chinese medicine has formed a unique advantage in the treatment of acne due to its small adverse effects and obvious curative effect. Therefore, this study will review the effective treatment of acne vulgaris.

Keywords: Acne; Traditional Chinese medicine; Medication rules; Research progress

Acne is a chronic inflammatory skin disease that occurs in adolescence, mainly involving the sebaceous units of the hair follicles of the face, with acne, papules, pustules, nodules, cysts, scars as the main clinical manifestations, skin lesions are more common on the cheeks, forehead and jaw, and can also involve the trunk, such as the chest and back. The records of acne in ancient Chinese medicine books are mostly called «acne» and «facial burn», which belong to the category of sores.

Objective

Based on the literature research, the research progress of traditional Chinese medicine medication for acne vulgaris was summarized, in order to provide reference for subsequent traditional Chinese medicine and research on acne.

Materials and methods

Through the literature retrieval method, the literature on the clinical experience of traditional Chinese medicine in the treatment of acne in the past 20 years was reviewed, and the effective traditional Chinese medicines for acne vulgaris were summarized.

Results and discussion

1 Clear heat Chinese medicine

Through reading the literature, it is found that the clinical treatment of acne is mainly based on antipyretic drugs, which have good effects on lung meridian fever, spleen and stomach humid heat and other types. Among them, the more commonly used Chinese medicines mainly include skullcap, forsythia, honeysuckle, red peony, dandelion, peony peel and raw ground yellow. Skullcap has a bitter taste, cold nature, good at clearing heat and

dampness, ephemeral fire and detoxification, the best at clearing the heat of lung meridian qi, with anti-inflammatory, antiviral, antioxidant, antibacterial and other effects. Forsythia is slightly cold, bitter taste, the effect of clearing heat and detoxification, can eliminate carbuncles and disperse knots, the anti-inflammatory and antioxidant effects of lignans and phenylethanol glycosides in forsythia make it have the effect of clearing heat, and the detoxification effect benefits from the antibacterial and antiviral effects of its components. Purple flower-wild chrysanthemum-dandelion are all commonly used in surgery to treat carbuncles and carbuncles as antipyretic and detoxifying drugs, and the five-flavor disinfectant drink commonly used in clinical treatment of boils is based on this group of drugs

2 Chinese medicine for cough and phlegm relief

Clinical studies have shown that traditional Chinese medicines such as loquat leaf, mulberry white bark, soaphorn thorn, and Qingbanxia can effectively treat pulmonary acne with wind and fever. Loquat leaf - mulberry white skin in loquat leaf bitter cold, clear lung heat and stomach fire, modern pharmacological research has found that loquat leaf has anti-inflammatory, antioxidant effect, the study found that loquat leaf triterpenic acid compounds have inhibitory effect on Propionibacterium acnes, some compounds also have anti-allergic and anti-inflammatory activities. Mulberry white pi gan cold force slow, clear the lungs and reduce the fire, loquat clear lung drink is even more used as a king to treat pulmonary acne.

3 Chinese medicine for deficiency

Tonic medicine to angelica, white art, licorice and licorice accounted for a large proportion, although licorice also has the effect of clearing heat and detoxification, but the combination of more often use its harmonizing medicines, licorice chemical composition is more complex, the efficacy is extensive, with anti-inflammatory, antidepressant, liver protection and other effects.

4 Water permeability agent

Poria, coix seed, Yin Chen, Ze diarrhea are commonly used in the treatment of acne vulgaris is commonly used water wetting Chinese medicine, acne onset wet evil often accompanied by heat evil invasion of the human body, so the use of water wetting Chinese medicine can effectively relieve the discomfort symptoms of acne.

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RESEARCH PROGRESS OF TCM TREATMENT OF INTERMENSTRUAL BLEEDING

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Abstract. Intermenstrual bleeding is a common disease in women, the cause of which is complicated, and there is a certain difficulty in clinical treatment.Western medicine often uses estrogen and other drugs to treat, but the side effects are obvious and difficult to cure.TCM treatment of intermenstrual bleeding has attracted much attention because of its unique theoretical system and treatment method based on syndrome differentiation.The purpose of this article is to review the research progress of TCM treatment of intermenstrual bleeding, including the understanding of etiology and pathogenesis, TCM treatment, acupuncture therapy and clinical effect.Through the summary of the existing literature, the aim is to provide reference and inspiration for TCM treatment of intermenstrual bleeding.

Keywords: Intermenstrual bleeding; TCM; Syndrome differentiation; Etiology and pathogenesis; Acupuncture therapy

Intermenstrual bleeding is one of the common diseases in women, which brings mental and physical troubles to patients, and even affects fertility and quality of life.Because the history of mid-menstrual bleeding is hidden, and the amount of blood loss is small or only manifested as blood streaks in the leucorrhea, many patients often do not pay attention to the disease for several years, until the amount of blood loss is large or they find the rule of bleeding to seek medical treatment, which often has caused certain harm to the body [1].Western medicine still has incomplete understanding of its etiology and pathogenesis, and estrogen drugs are often used to treat it, but the curative effect is unstable and there are many side effects [2].In contrast, TCM treatment of intermenstrual bleeding has attracted much attention from researchers and patients because of its unique theoretical system and syndrome differentiation.The purpose of this review is to systematically summarize the research progress of TCM in the treatment of intermenstrual bleeding, and to provide reference for further research and application of TCM in the treatment of this disease.

Objective

The purpose of this review is to comprehensively analyze the existing literature on the treatment of intermenstrual bleeding by traditional Chinese medicine, and summarize the treatment methods, efficacy evaluation, existing problems and challenges.Through the summary of the existing studies, the possible mechanism of TCM treatment of intermenstrual bleeding was discussed, and the implications for clinical practice were provided.

Materials and methods

The literature sources of this review include domestic and foreign journal articles, dissertations and related professional books.The search covered theoretical and practical studies on the treatment of intermenstrual bleeding by traditional Chinese medicine until 2021.According to the contents of the literature, the etiology and pathogenesis, TCM treatment, acupuncture and moxibustion therapy and clinical effects were summarized.

Results and discussion

The treatment of intermenstrual bleeding is a complicated process. Although Western medicine can stop bleeding temporarily, it is difficult to solve the fundamental problem.Traditional Chinese medicine can improve the therapeutic effect to some extent because of its unique advantages in the treatment of intermenstrual bleeding.Studies have found that the main pathogenesis of TCM treatment of intermenstrual bleeding is related to kidney Yin deficiency, kidney Yang deficiency, damp-heat accumulation, blood stasis and other factors [3], and Chinese herbal therapy, acupuncture and moxibustion and other methods can play a certain role in regulating the balance of Yin and Yang qi and blood of patients.However, existing studies still have some problems such as small sample size and imperfect study design, so more high-quality studies are needed to verify and improve the TCM treatment of intermenstrual bleeding.

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APPLICATION STUDY OF LEI HUO MOXIBUSTION IN THE TREATMENT OF COLD COAGULATION BLOOD STASIS TYPE PRIMARY DYSMENORRHEA

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Abstract. Dysmenorrhea is one of the common gynecological diseases, mainly manifested as women before and after menstruation with periodic symptoms of lower abdomen pain, or pain traction of the lumbar spine and sacrum, and even severe pain and fainting. Thunder fire moxibustion is a moxibustion method innovatively produced on the basis of «Lei Huoshen Needle» through innovative drug matching and moxibustion methods, and has been used in clinical research on the treatment of primary dysmenorrhea.

Keywords: Thunder moxibustion; Cold coagulation blood stasis type; Primary dysmenorrhea

Pain is often manifested as lower abdominal or lumbosacral spasmodic pain that occurs before and after menstruation or during menstruation, and severe cases are accompanied by nausea, night sweats, cold hands and feet and even fainting due to severe pain, which is a common gynecological disease that occurs with the menstrual cycle. Primary dysmenorrhea usually refers to the absence of significant organic lesions in the pelvis and genitals, usually occurring at menarche or shortly thereafter. For primary dysmenorrhea, modern medicine mainly uses non-steroidal anti-inflammatory drugs, antipyretic analgesics and hormonal drugs, which can significantly inhibit the synthesis of endometrial prostaglandins, reduce uterine smooth muscle contraction, relieve pain, etc. [1]. The medicine of the motherland divides primary dysmenorrhea into cold coagulation blood stasis type, qi stasis type, humid heat accumulation type, and kidney qi deficiency type [2]. The methods of traditional Chinese medicine to treat dysmenorrhea mainly include oral Chinese medicine, acupuncture, tuina, acupuncture point application, etc., among which Lei Huo moxibustion is widely accepted by patients because of its convenient operation and remarkable treatment effect [3].

Materials and methods

Lei Huo Moxibustion is a traditional open flame suspension acupuncture therapy, which integrates acupuncture, moxibustion and external treatment of medicine, and has the effects of nourishing liver and kidneys, dispersing cold and dampness, activating blood circulation and removing stasis, and channeling and relieving pain [4]. Thunder fire moxibustion, also known as thunder fire needle, is made of wood incense, agarwood, musk, frankincense, dried ginger, Yin Chen, qianghuo, Chuanwu and Xionghuang and other traditional Chinese medicine powder, thunder fire moxibustion can produce infrared and near-infrared radiation energy when burning, can form a high-concentration medicinal area on the moxibustion surface, through the action of heat to make the medicinal force penetrate deep into the tissue to adjust the body function [5]. Through data mining in ancient and modern literature, it is found that Guan Yuan, Sanyin Jiao, Shenque, Intermediate and Qi Hai acupoints are used more frequently [6]. Luo Jieling [7] had a good effect on 80 cases of cold coagulation blood stasis dysmenorrhea with guan yuan, qihai, three yin intercourse and curved bones.

Results and discussion

In summary, Lei Huo Moxibustion has a good effect on cold coagulation blood stasis type dysmenorrhea, and Lei Huo Moxibustion combined with other therapies can improve the cure rate of patients with primary dysmenorrhea. In recent years, due to the remarkable efficacy of lightning moxibustion, the difficulty of recurrence and the simple operation, more and more patients have become more and more recognized for the treatment of thunder moxibustion, and more experiments should be carried out clinically on the treatment of dysmenorrhea to find the best thunder fire moxibustion acupoints.

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APPLICATION OF TCM APPROPRIATE TECHNOLOGY AND CHARACTERISTIC NURSING IN PATIENTS WITH LIVER CANCER

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Abstract. In modern medical treatment, Western medicine methods are more medical, and in the country these years under the large-scale promotion of traditional Chinese medicine, traditional Chinese medicine nursing technology has also become popular, such as cupping, moxibustion, scraping, acupoint application and a series of traditional Chinese medicine suitable nursing technology. Traditional Chinese medicine appropriate technology and special nursing for the field of liver cancer research has a certain positive significance. To discuss the current situation, hot spot and frontier trend of the study of TCM appropriate technology in patients with liver cancer.

Keywords: TCM appropriate technology; Application research

Objective

In order to explore the relationship between the appropriate technology of traditional Chinese medicine and liver cancer to achieve further treatment in the later stage. The research status of TCM appropriate technology and characteristic nursing in patients with liver cancer shows the auxiliary relationship between the two in the treatment of liver cancer.

Materials and methods

In this study, the keywords and synonyms of «appropriate technology of traditional Chinese medicine", "acupuncture therapy", "moxibustion therapy", "ear point pressure bean" and «liver cancer" were used as search terms, and keyword search was carried out through the advanced search function of CNKI. Cupping, moxibustion, gua sha, acupoint application and a series of TCM appropriate nursing techniques have a good effect on the rehabilitation of patients with liver cancer. Acupoint application is usually the drug into a fine powder, add an appropriate amount of matrix, with wine, vinegar, turpentine and other mixed into paste or paste acupoint external application, so that the drug from the skin into the body, to promote the circulation, strengthen the role of qi and blood operation, acupoint application is usually the most commonly used method in clinical practice, its clinical application has been a high evaluation. In the clinical observation of patients with liver cancer, Liu Ying et al [1]. found that the use of more appropriate vinegar, boiled water, Shuangbai powder for blending and applying in the liver area can effectively channel and activate the circulation, and its anti-inflammatory and detumescence effect is also more obvious, and the patient's ecchymosis site will also be significantly subsided. In the care of patients with liver cancer, acupuncture therapy can be used to relieve the physical pain of patients, which can be targeted at Yanglingquan and Taichong points to dredge the meridians, and can also reduce the pain on both sides of the ribs caused by tumor tissue edema, ischemia and necrosis[2].However, after a long period of clinical treatment experience, we must also pay attention to rely on drugs and traditional Chinese medicine appropriate nursing technology to treat the disease is far from enough,like the diet and emotional care of tumor patients often play an important role in the rehabilitation process of patients.

Results and Discussion

TCM nursing appropriate technology plays an increasingly important role in the clinical treatment of modern medicine which not only has an inestimable effect on the treatment and rehabilitation of patients with liver cancer, but also has a great effect on the treatment of patients with other diseases, such as acupoint application, acupuncture and cupping and other TCM nursing techniques have played different functional roles in the rehabilitation of patients[3].The effect of different body conditions on different people is not the same. We should not only find a new breakthrough in the treatment, but also intervene in living habits, eating habits and psychological nursing in order to make the recovery of patients with liver cancer come as soon as possible.

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APPLICATION PROGRESS OF FIRE DRAGON CUPPING COMPREHENSIVE MOXIBUSTION FOR HIGH INCIDENCE OF COLD ARTHRALGIA

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Abstract. This paper introduces the observation results of the researchers on the curative effect of the comprehensive moxibustion therapy of dragon cupping on the treatment of the high incidence of arthralgia in the residents of cold regions. The innovative external moxibustion of traditional Chinese medicine was applied to intervene in the high incidence of rheumatoid arthritis, ankylosing spondylitis, lupus erythematosus and other ' arthralgia ' among residents in Heilongjiang Province, Liaoning Province, Jilin Province, Inner Mongolia Autonomous Region and other areas with low annual average temperature. The results showed that the effect of fire dragon cupping comprehensive moxibustion was more obvious than that of traditional moxibustion, and its concept and technology were also applicable to residents in high latitude areas such as Russia and Canada.

Keywords: Bi-syndrome ; Fire dragon jar comprehensive moxibustion ; A cold land

Traditional Chinese medicine believes that rheumatoid arthritis, ankylosing spondylitis, and lupus erythematosus all belong to the category of ' arthralgia syndrome '. Bi-syndrome is due to the human body by cold, wet and other external effects caused by meridian obstruction, poor blood, leading to heavy limbs, numbness and other symptoms of a series of characterization [1]. Western medicine treatment with non-steroidal anti-inflammatory drugs, side effects, high cost. The dragon jar comprehensive moxibustion therapy integrates massage, scraping, moxibustion, massage, ironing, and acupoint functions. It is a new treatment that coexists with therapeutic and comfort, and has no side effects. With the rapid development of social economy, fewer and fewer people pay attention to physical exercise. At the same time, due to the geographical characteristics of cold weather and people 's incorrect exercise methods, the incidence of arthralgia is high. The treatment and rehabilitation of arthralgia syndrome is a hot topic in current research.

Objective

Evaluating the effect of improving the symptoms of ' arthralgia ' in residents in cold regions is helpful to judge the effectiveness and feasibility of the comprehensive moxibustion therapy of dragon cupping.

Materials and Methods

Place the patient in a comfortable position, expose the affected area, and apply an appropriate amount of essential oil. After the moxa column is burned evenly and the temperature of the tank mouth is suitable, the tank mouth is lifted by 15 °.Different techniques such as point, dial, push, and flash are used in the affected area to rotate, reverse, and shake the tank body to stimulate the muscle tissue and related acupoints. The operation is about 30 minutes, and the skin is slightly red and hot to prevent scald.

Results and discussion

Liu Linlin et al.[2] used fire dragon pot comprehensive moxibustion combined with western medicine to treat 48 patients with ankylosing spondylitis. Studies have shown that this therapy can alleviate its clinical symptoms and reduce inflammatory response. The effect is significant, safe and reliable, and conducive to prognosis. Xu Xingxing et al.[3] treated 34 patients with knee osteoarthritis with fire dragon pot comprehensive moxibustion. The results showed that fire dragon pot treatment could effectively improve the pain symptoms of arthritis patients and improve joint function, which was superior to conventional single treatment. Xu Nanzhong[4] treated knee osteoarthritis of kidney deficiency and blood stasis type by fire dragon jar, highlighting the advantages of TCM syndrome differentiation combined with external treatment, and providing a more appropriate, safe and effective treatment method for clinical diagnosis and treatment of knee osteoarthritis.

The comprehensive moxibustion of dragon

cupping can significantly improve the prognosis of patients with high incidence of ' arthralgia ' in China, and improve people 's understanding of the treatment of arthralgia range diseases. Russia has a similar climate with the northern provinces of China, and musculoskeletal system diseases rank third in Russia 's high incidence. It is of great significance to learn this operation technology to intervene in reducing the high incidence frequency of Russia. In the future, Russian patients will be included in the experiment to enrich the research results and improve the advanced level of Russian nursing.

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INNOVATIVE TREATMENT OF LUMBAR TRAUMA PATIENTS WITH ACUPUNCTURE IN RUSSIA

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Abstract. As a traditional medical means in China, TCM acupuncture and moxibustion has a unique effect in the treatment of various diseases, which has been spread all over the world and has a great influence in Russia. This paper analyzes and discusses the clinical play of acupuncture and moxibustion in Russia and the healing situation of Russian patients, and summarizes the therapeutic effect of acupuncture and moxibustion in the treatment of lumbar trauma diseases in Russia.

Keywords: Acupuncture,Traditional Chinese Medicine,Culture,Clinical effect,Clinical observation

As a traditional treatment method, acupuncture and moxiacupuncture should first be guided by the theory of traditional Chinese medicine, and the traditional Chinese Yin and Yang should be classified and divided into channels for reasonable treatment. The main purpose is to adjust the disorder of the body, restore the normal function of the body, and carry out different types of treatment from the whole to the local way. After it was introduced into Russia, Russian scholars also carried out innovative development on it. Based on a large number of clinical and physiological studies, former Soviet scholars Foerter and Podxibiajin put forward the concept of skin activity points (moxibustion) in 1946[1]to realize the localized development of TCM acupuncture.

Objective

Spanning the Eurasian continent, Russia has extensive cultural exchanges, but most of its medical treatment is based on modern medicine. For patients with lumbar trauma, surgery is the main treatment, and there is no conservative relative treatment that can alleviate the pain of patients. Acupuncture filled this gap after its introduction. Acupuncture is excellent in the treatment of various diseases[2]. By analyzing clinical cases of acupuncture and moxibustion, the clinical observation of acupuncture and moxibustion on patients with lumbar trauma in Russia was summarized to provide reference for clinical application.

Material methods

General data of 49 Russian lumbar patients 49 patients were consistent with the diagnosis of lumbar disc herniation. There were 27 cases of male and 22 cases of female, aged 20-64 years, with a course of 5 days to 20 years, of which 23 cases had obvious history of lumbar trauma. There were 25 cases of left lumbar and leg pain 20 cases of right lumbar and leg pain 4 cases of bilateral lumbar and leg pain in space L1 and 2 L2, 4 cases of space L3, 12 cases of space 4 L4, 30 cases of space 5 L5, 6 cases of space S1. There were 8 cases with more than two disc lesions and 1 case with right posterolateral intervertebral disc herniation in space T7 and 8. According to the patient's condition, the treatment was carried out with stimulation of acupoint classification and auxiliary massage to clear collaterals.

Results and discussion

Li Yamin et al. [3]used traditional Chinese acupuncture and massage to treat 49 patients, of which 37 were unilateral type, 8 were cured (21.6%), 20 were improved (54.1%), 9 were not cured (24.3%), 10 were bilateral type, 3 were cured (30%), 4 were improved (40%), 3 were not cured (30%), and 2 were central type. One case was improved (50%), one case was not cured (50%), the cure rate (22.1%), the recovery rate (51.1%), the recovery rate (26.5%), the total effective rate was 73.5%.

Through the above data, it can be observed that acupuncture has a significant effect on treatment, reduces the pain of patients, and has high safety.

Therefore, in clinical practice, it is possible to consider the characteristics of the Russian people to carry out innovative acupoint treatment for patients. Acupuncture, as a traditional Chinese medical therapy, can be obviously found in the above clinical observations that it has its own unique features for patients with lumbar trauma to help patients reduce pain, with good clinical effect, and make up for the shortcomings of Western medicine in trauma, and can learn from local therapies.

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BASED ON GUT MICROBIOTA, EXPLORE THE APPLICATION OF THE THEORY OF «LUNG IN LARGE INTESTINE, EXTERIOR AND INTERIOR» IN THE TREATMENT OF LUNG CANCER

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Abstract. As one of the cancers with high incidence rate and high mortality, lung cancer has always been the focus of attention. Gut microbiota is a large population living in the intestines. Some studies have shown that the Gut microbiota of lung cancer patients has obvious disorder. «The lung is in the large intestine, but outside and inside» is from the Huangdi Neijing, which explains the functional relationship between the respiratory system and the digestive system. This article reviews relevant literature in the past decade and explores the connections between the three.

Keywords: Gut microbiota, Lung cancer

In the theory of traditional Chinese medicine, lung cancer is divided into areas such as «cough», «hemoptysis», and «chest pain». The etiology and pathogenesis of lung cancer are explained in ancient books as «If the lung qi is injured by labor, the striae are not dense, and the external evil beats and blocks and swells», which is the so-called «deficiency of qi and external evil enters, and evil accumulates and forms.

According to the latest World Cancer Report, lung cancer is the cancer with the highest incidence rate and the largest number of deaths among all types of cancer in China. About 80% of lung cancer patients are diagnosed with non-small cell lung cancer (NSCLC), and early lung cancer is mainly treated through surgical methods. In clinical practice, it has been found that the majority of patients seeking treatment are already in the middle to late stages, and even after surgery, the risk of metastasis remains high, with a 5-year survival rate of less than 20%. [1] Combining traditional Chinese medicine theory with traditional Chinese medicine treatment can serve as a new breakthrough point.

Objective

It reveals the relationship between the changes of Gut microbiota and the occurrence and development of lung cancer under the guidance of the basic theory of traditional Chinese medicine «lung and large intestine are exterior to interior».

Materials and methods

Through the search and sorting of «Gut microbiota», «lung cancer» and «lung and large intestine exterior and interior» by CNKI, the mechanism of Gut microbiota affecting the occurrence and development of lung cancer was summarized, and the relationship between them was analyzed based on the basic theory of traditional Chinese medicine «lung and large intestine exterior and interior».

Results and discussion

The exterior interior relationship between the lung meridian of the hand Taiyin and the

large intestine meridian of the hand Yangming is formed through the collateral of the meridians. The «Lingshu» first proposed the viewpoint of the large intestine under the hand Taiyin meridian, indicating the relationship between the external and internal collaterals of the lung and the large intestine.»Lung and large intestine are exterior and interior» is one of the important basic theories in traditional Chinese medicine, and modern research has also confirmed that Gut microbiota can regulate the regional immune state of the lung, and the main mechanism may be related to regulating the distribution of immune cells.

Gut microbiota is a huge biological population. It is estimated that there are about 10 trillion bacteria in the intestine, whose total mass is comparable to that of human liver. Known as the 'second gene group of humans', these bacteria often adhere to the intestinal mucosa, forming a biological barrier to ensure the health of the body's intestines. [2] Normally, these Gut microbiota are in a balanced state. When this balance is broken, the body will have various pathological changes. [3]

Anaerobes in the intestine can ferment undigested and absorbed carbohydrates to produce organic fatty acids with 1-6 carbon atoms, called Short-chain fatty acid (SCFA). Due to the fact that SCFAs are first absorbed by colon epithelial cells and can be metabolized within these cells, they profoundly affect the basic biology of intestinal epithelial cells.Some studies have shown that after SCFAs are generated, they can enter the liver through the portal vein circulation for systemic anti-tumor. The mechanism is to recognize the G protein-coupled receptor on the surface of cancer cells and increase tumor necrosis factor-α (TNF- α) Secreting, reducing Bcl-2 expression, inhibiting MAPK/ERK pathway, etc., to inhibit tumor proliferation and metastasis, and promote tumor apoptosis. [4]

Therefore, Gut microbiota can produce Short-chain fatty acid to inhibit the occurrence and development of cancer, which is consistent with the theory of «lung and large intestine are exterior and interior».

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CROSS-KINGDOM REGULATION BY PLANT MIRNAS : IMPLICATIONS FOR HUMAN DISEASE TREATMENT

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Abstract. Plant microRNAs (miRNAs) are short non-coding RNA molecules that are crucial regulators of biological processes in plants, including growth, development, and metabolic regulation. Recent research has highlighted a fascinating aspect of plant miRNAs – they not only function as regulators within their own species but also have the ability to transmit regulatory information across species barriers through transboundary mechanisms. This paper offers a review of plant miRNAs, focusing on their stability, cellular uptake mechanisms, and profound effects on animal biology.

Keywords: miRNA , cross-kingdom regulation , disease therapy , mechanism , treatment

MicroRNA (miRNA) is a short non-coding RNA molecule, typically consisting of 18-26 nucleotides. The discovery of miRNAs marked a significant milestone for non-coding RNAs, revealing regulatory mechanisms that miRNAs as endogenous regulatory molecules mediate control gene expression at the transcriptional or translational level. In the past, the concept of transboundary regulation by miRNAs was considered extremely challenging. However, recent research breakthroughs have debunked these preconceptions, revealing that plant miRNAs can indeed traverse the food chain and enter animal cells to participate in gene expression regulation. This groundbreaking discovery suggests that miRNAs may serve as the molecular basis for the therapeutic effects of medicinal plants. The transboundary regulation of plant miRNAs involves three crucial steps: stable presence of miRNAs,

successful entry into animal cells, and binding with target gene mRNA within these cells.

1. Stability of plant miRNA

Recent research has revealed fascinating insights into the resilience of plant miRNAs, demonstrating a remarkable ability to maintain their integrity even during digestion. This stability can be attributed to several mechanisms that safeguard miRNAs from degradation and enhance their half-life. One such mechanism involves the formation of stable complexes with specific RNA-binding proteins. By doing so, miRNAs protect themselves from degradation caused by RNA enzymes, thereby extending their lifespan within the cellular environment. Additionally, studies have indicated that miRNAs can exist and be delivered within the extracellular environment through extracellular vesicles. These membrane-bound vesicles, secreted by cells, contain miRNAs and protect them from potential harm to the surrounding environment. Furthermore, specific modifications play a crucial role in enhancing the stability of miRNAs. For instance, 3' tail modifications, such as the addition of uridylic acid, offer protection against endonuclease attacks. Certain miRNAs undergo modifications such as methylation or phosphorylation, further enhancing their stability and ability to withstand various cellular conditions. The utilization of these protective mechanisms not only shields miRNAs from degradation but also presents intriguing opportunities for the cross-kingdom of miRNAs between plants and animals.

2 Ways of plant miRNA entering animal cells

Plant miRNAs enter animal cells through tight junctions or transporters present in intestinal epithelial cells. Wang et al.[1]conducted a study to assess the stability of six representative plant miRNAs, namely miR157a, miR172a, miR894, miR159, miR160, and miR168a, in simulated gastric and intestinal environments, as well as the absorption mechanism in Caco-2 cells. The results indicated that the plant miRNAs exhibited remarkable stability in the simulated gastrointestinal environment, and the presence of various food components further enhanced their stability under simulated stomach conditions. Additionally, 2'-O-methylation proved to be highly effective in protecting plant miRNAs in intestinal juices and significantly increased their final concentrations. Concurrently, stable plant miRNAs were observed to be absorbed by Caco-2 cells through clathrin-mediated endocytosis. It is noteworthy that this uptake process was facilitated through the presence of two typical receptors on the cell membrane, namely NACh, and TLR9.

3 Effects of plant miRNA on the body

An increasing body of experimental evidence highlights the presence of miRNAs in various foods, including vegetables, fruits, and whole grains. These dietary miRNAs have demonstrated remarkable resilience during digestion, allowing them to be transported into the human bloodstream. Upon entering animal cells, dietary miRNAs engage in base pairing with target mRNAs, leading to mRNA degradation or translational inhibition. Regular consumption of plant-based foods enriched with miRNAs has been associated with beneficial effects on the treatment of disease.

MIR168a, abundantly found in rice, has been identified to bind to the human/mouse low-density lipoprotein receptor adaptor protein 1 mRNA, leading to the inhibition of low-density lipoprotein removal in mouse plasma and subsequent impairment of cholesterol transport. A study conducted by Antonella Minutolo et al. evaluated the effect of p-miR858b on Moringa seed extract. The findings revealed that upon transfection of synthetic p-miR858b into HIV+ Peripheral blood mononuclear cells, the expression of VAV1 and HIV p24 proteins decreased. This observation suggests that the small plant RNAs found in Moringa may potentially contribute to HIV treatment by restoring normal immune system function at the cellular level and reducing the replication of HIV infection. Continuous consumption of the Honeysuckle decoction results in a significant increase in MIR2911 levels in the peripheral blood and lungs of mice. Through bioinformatic prediction and luciferase reporter gene assay, it has been demonstrated that MIR2911 can effectively target various influenza A viruses, including H1N1, H5N1, and H7N9. The synthetic MIR2911 mimic has been found to efficiently inhibit the expression of PB2 and NS1 proteins encoded by H1N1. Moreover, MIR2911 exhibits inhibitory effects on the replication of H5N1 and H7N9 viruses in both in vitro and in vivo experiments. Furthermore, MIR2911 also binds to TGF-β1 mRNA, leading to the down-regulation of TGF-β1 expression. This down-regulation facilitates the infiltration of T lymphocytes, thus impeding the progression of colon cancer in mice with normal immune function.

These findings emphasize the utmost importance of miRNAs in plant-based foods, providing innovative insights into the intricate interplay between plants and human health, thereby enhancing our understanding of miRNA function. Additionally, this groundbreaking discovery unveils new opportunities and prospects for harnessing and advancing miRNA-based therapies and drugs.»

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EFFICACY AND MECHANISM STUDY OF BAICHANTING COMPOUND ON PARKINSON'S DISEASE BASED ON METAGENOMICS

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Abstract. C57BL/6 mice were used as a control group, and α-syn transgenic C57BL/6 mice were randomly assigned to the PD or BCT group. UPLC-MS was performed to detect dopamine levels in brain tissue, while Metagenomics was used to determine the intestinal microbial composition, which results show that BCT could increase dopamine level, and regulate Acetatifactor, Marvinbryantia, Faecalitalea, Anaeromassilibacillus, Anaerobium, Pseudobutyrivibrio, Lachnotalea, Acetatifactor_muris, Marvinbryantia_formatexigens, Lachnotalea_sp_AF33_28, Faecalitalea_sp_Marseille_P3755, Anaerobium_acetethylicum, and Gemmiger_sp_An120 abundance to restore intestinal flora function, and reverse metabolism trend to play an anti-PD role.

Keywords: metagenomics, Parkinson's disease, Baichanting Compound,gut microbiota, dopamine

Parkinson's disease (PD) is the second most prevalent neurodegenerative disease worldwide. Several studies have shown that gastrointestinal dysfunction precedes PD symptoms in patients. Exploring the impact of microorganisms on PD could lead to a significant advancement in treating PD.The central nervous system and the gastrointestinal tract are widely recognized to exhibit bidirectional interaction. Gut microbiota may activate the distal central nervous system in this «reciprocity» process by creating particular signaling molecules such as lipopolysaccharides, resulting in neurological abnormalities. Stable intestinal microbial composition is critical for maintaining the integrity of the intestinal barrier and the stability of the brain microenvironment, thus forming a positive feedback of intestinal flora-gut-brain axis. However, the structure of the gut microbiota of PD patients has altered, with a reduction in Prevotellaceae, Faecalibacterium, and Lachnospiraceae and an increase in Akkermansia and Bifidobacteriaceae, as shown in multiple investigations. Encouragingly, PD mice showed fewer movement disorders after transplantation of the gut microbiota from healthy mice. This evidence suggests that disruption of the gut microbiota plays a critical role in the pathogenesis of PD. Previous research has found that BCT can significantly improve PD mice symptoms,which may an effective drug candidate for PD prevention. Therefore, this study detected the composition and function of intestinal flora with the help of metagenomics to provide a new idea for the mechanism study of treating PD.

Objective

To clarify the therapeutic effect of Baichanting on PD and explore its possible mechanism based on metagenomics.

Materials and methods

The BCT used in this study was obtained from our previous study1. The content of eleutheroside B in BCT was 0.851%±0.030%, paeoniflorin was 5.975%±0.071%, eleutheroside E was 0.60%±0.003%, and rhynchophylline was 0.058%±0.003%. After 7 days of adaptive feeding, C57BL/6 mice were a control group (Con), and α-syn transgenic male C57BL/6 mice were divided randomly into Parkinson's model group (α-syn), and Baichanting administration group (BCT). According to the Chinese Pharmacopoeia (2020 edition) and the previous study1, the BCT group received BCT (363.00mg/kg) orally, while the Con and PD groups received the same amount of distilled water for 21 consecutive days. 12h after the last administration, the mice were anesthetized with 1% pentobarbital sodium. The striatum was removed from the brain of mice on an ice plate, and then the dopamine content was detected by UPLC-MS. Mice cecum contents were collected using sterile tubes and immediately frozen in liquid nitrogen for Metagenomics analysis.

Results and discussion

The results showed that the dopamine content of mice in the model group decreased, and BCT could reverse this phenomenon. More and more evidence has proved that the occurrence and development of PD is closely related to the disorder of intestinal flora. It may be a new generation of therapy to improve PD disease by regulating the abundance and variety of intestinal microorganisms. The intestinal contents of mice in Con group, a-syn group and BCT group were detected by macro factor sequencing. Compared with Con group, simpson index was increased in a-syn group, and the evenness of intestinal flora and dominant species increased, while simpson index decreased after BCT. The tendency of microflora composition to blank group indicated that BCT could reverse intestinal flora disturbance caused by overexpression of a-syn. In this study, BCT can reverse flora abundance changes of 7 genera and 6 species in the PD mice -- Acetatifactor, Anaerobium, Lachnotalea, Marvinbryantia, Pseudobutyrivibrio and Faecalitalea and Anaeromassilibacillus, And Acetatifactor_muris, Anaerobium_acetethylicum, Lachnotalea_sp_AF33_28, Marvinbryantia_

formatexigens, Gemmiger_sp_An120 and Fae calitalea_sp_Marseille_P3755. What is the function and function of the changed gut flora? We conducted enrichment analysis on KO screened by macrogenes and found nine pathways: Pertussis; Arginine_and_proline_metabolism; Carbapenem_ biosynthesis; carbapenem_biosynthesis; Pyrimidine_metabolism; Styrene_degradation; Inositol_phosphate_metabolism; Synthesis_and_ degradation_of_ketone_bodies; D_Glutamine_ and_D_glutamate_metabolism.

In conclusion, we demonstrated that BCT mitigated the development of PD in a-syn transgenic mice. BCT can reverse metabolism of PD mice by regulating the composition of intestinal flora to play an anti-PD role, providing solid theoretical evidence and research ideas for the treatment of PD by BCT. However, the results of this study require further fecal microbial transplantation experiments to clarify the contribution of altered intestinal flora to the anti-PD effect of BCT.

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OBSERVATION ON THE THERAPEUTIC EFFECT OF ACUPUNCTURE WITH ZHATIAO AND JIEJINGTONGQI IN THE TREATMENT OF FROZEN SHOULDER DISEASE

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Abstract. To observe the clinical efficacy of acupuncture combined with zhatiao to pass the meridian and receive qi in the treatment of frozen shoulder. The control group was given acupuncture treatment, and the observation group was given Zhatiao Tongjingjieqi treatment on the basis of the control group. The clinical efficacy and visual analog scale (VAS) score before and after treatment were compared between the two groups. After treatment, the VAS scores of patients in both groups were lower than before, and the observation group was lower than the control group, furthermore the differences were statistically significant (P<0.05). It indicates that the efficacy of conventional acupuncture combined with channeling the meridians and receiving qi in the treatment of frozen shoulder is accurate, and can effectively relieve the patients' shoulder pain.

Keywords: Periarthritis of Shoulder; zhatiao; Tongjing Jieqi

Frozen shoulder is a chronic condition characterized by shoulder pain and a full range of motion limitations. Some patients suffer from long-term restriction of shoulder movement of varying severity, resulting in a reduced quality of life. Frozen shoulder is most common in the elderly and can be categorized as «shoulder paralysis» in Chinese medicine. Acupuncture and moxibustion are internationally recognized as an effective treatment for frozen shoulder1. Zhatiao refers to the phenomenon that during the needling process, the muscles at the site of needling can be observed externally to jump and produce localized contraction.

Objective

Patients who came to the outpatient clinic of the Department of Acupuncture and Moxibustion VI of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine from January 2022 to January 2023 with a confirmed diagnosis of chronic-phase frozen shoulder were selected for the study. Referring to the diagnostic criteria of frozen shoulder as stipulated in the Diagnostic and Therapeutic Criteria of Chinese Medicine, 60 cases were included. They were divided into control group and observation group according to the method of randomized count table.

Materials and methods

The main acupoints such as the jianyv point, the jianliao point,jianzhen point and other main points were given to press the pain radiating meridians to impose the matching acupoints, such as the yangming meridian to take the jianliao point and the shouwuli point, and so on. After the needle was inserted, both hands were used to operate the needle in the same direction at the same time, and the tonic and diarrhea techniques were carried out according to the deficiency and reality, so that the jianyv point was connected with the Hegu point, the jianliao point with the Waiguan point, and the jianzhen point with the Houxi point, and the needle sensation was transmitted to the fingertips along the Sanjiao meridian, the large intestine meridian, and the small intestine meridian, and the patient's self-sense of the stimulation of the upper and lower parts of the finger was connected to the front line.

Results and discussion

The total effective rate of the observation group was 93.33% (28/30), which was higher than the 70.00% (21/30) of the control group, and the difference was statistically significant (P<0.05). Before treatment, the VAS scores of patients in the two groups were compared, and the difference was not statistically significant (P>0.05). After treatment, the VAS scores of patients in both groups were lower than before treatment, and the observation group was lower than the control group, and the differences were statistically significant (P<0.05).

Periarthritis of the shoulder, or «frozen shoulder» for short, is a sterile inflammatory disease of the shoulder joint caused by chronic strain or injury, and is characterized by pain in the shoulder joint, immobilization of the painful area, and dysfunction of movement2.Za-jumping is what the «Neijing» refers to as getting qi, which is the sign of the effect of acupuncture. Prof. Liu Zheng believes that after getting qi, the patient will have a strong feeling of needles, which has the advantages of improving the therapeutic effect and prolonging the effective time of needling.

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CLINICAL STUDY OF REPETITIVE TRANSCRANIAL ACUPUNCTURE STIMULATION COMBINED WITH REHABILITATION IN THE TREATMENT OF POST-STROKE BALANCE DYSFUNCTION

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Abstract. This is a clinical randomized controlled study. By analyzing the MBI index, Berg Balance Scale (BBS) and Fugl-Mayer Balance Scale (FM-B) before and after treatment, to compare the clinical efficacy of repetitive transcranial acupuncture stimulation (rTAS) combined with rehabilitation and the conventional acupuncture manipulation combined with rehabilitation in the treatment of post-stroke balance dysfunction. The results showed that the rTAS group was higher than the traditional acupuncture group, both the scores and the total effective rate, and the difference was statistically significant(P<0.05). This confirms the importance of acupuncture manipulation in the efficacy of healing.

Keywords: Sun Shentian; Repetitive transcranial acupuncture stimulation; Rehabilitation; Stroke; Balance dysfunction;

Stroke is the leading cause of death or disability in adults. With the improvement of diagnosis and treatment technology, the mortality rate of stroke patients in the acute stage has dropped significantly, but more than 70% of them will still have different types of dysfunction, among which balance dysfunction is the most common, mainly manifested as unsteady sitting and walking ability. Therefore, restoring the balance function of patients can not only improve the quality of life for patients, but also the key to their return to family and society.

At present, the main treatment method is rehabilitation training, but its curative effect is greatly affected by different training equipment. The rTAS is a scalp acupuncture technique proposed by Traditional Chinese Medicine master Sun Shentian. It combines traditional acupuncture theory with modern medical brain functional divisions, and is effective in treating neurological diseases.

Objective

To investigate the clinical effect of rTAS combines rehabilitation for post-stroke balance dysfunction.

Materials and methods

The 62 cases were randomly assigned to treatment group and control group. The same acupoints and rehabilitation programme were choosed in both groups. The acupoint(bilateral): the balance area, the motor and the the sensory area of Jiao's scalp acupuncture, Fengchi (GB20), Yanglingquan (GB34), Hegu (LI4), Taichong (LR3), Zusanli (ST36), Quchi (LI11), Shenmai (BL62). Each acupuncture treatment lasts 30 minutes, once a day, 6 times a week, 4 weeks as a course of treatment.

The treatment group were treated by rTAS combines rehabilitation. That is, the scalp point are applied with a compound technique of lifting-

twirling(200r/min) for 3 minutes. The control group were treated by regular acupuncture combines rehabilitation.

Results and discussion

After treatment, both groups' BBS, FM-B and MBI index were improved(P<0.05), and the three measurements in the treatment group are greatly different from the control group (P<0.05). The total effective rate of the treatment group was 86.2%, which was higher than the 83.3% of the control group(P<0.05).

Acupuncture is essentially a peripheral sensory input that effectively improves balance function in stroke patients by bettering the state of peripheral circulation, activating the sensory system, and enhancing muscle strength in the trunk and limbs. This study used a combination of body acupuncture and scalp acupuncture applied with rTAS for treatment.

The mechanism of rTAS is similar to that of repetitive transcranial magnetic stimulation (rTMS). Both of them stimulate the cerebral cortex repeatedly at different frequencies to stimulate neurons, thereby activating the function of the local cerebral cortex. However, compared with rTMS, rTAS is safer and easier to operate. The integration of brain function should not only focus on the quantity and intensity of activation of specific brain regions, but also on the connectivity between cortical networks, which is the theoretical basis of multi-target point selection in rTAS. Based on this, the three areas of balance area, motor area and sensory area were selected in this study to treat post-stroke balance disorder.

Clinically, acupuncture needles with a size of 0.3×40 mm are used to pierce between the soft tissues of the subgaleal layer, and the twirling frequency is required to reach 200 r/min for 3 minutes. It was observed that the effect of rTAS evoked potentials gradually disappeared after 30 minutes of cessation of each acupuncture, so it was possible to leave the needle in place for 30 minutes and then repeat the twisting to enhance the stimulation. Studies have proved that rTAS can not only treat central nervous system lesions, but also have good curative effects on peripheral neuropathy and motor neuron disease, such as epilepsy, multiple sclerosis and insomnia.

Conclusion

rTAS combines rehabilitation has an outstanding efficacy on post-stroke balance dysfunction. It can effectively improve the daily life ability of patients.

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STUDY ON PREVENTION ANDTREATMENT OF ALZHEIMER'S DISEASE WITH TRADITIONAL CHINESE MEDICINE AND ITS EARLY BIOMARKERS

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Abstract. Alzheimer's disease (AD) is a neurodegenerative disease with insidious onset and progressive development. According to relevant statistics, there are 70 million to 100 million early-stage AD patients in the world, and it is predicted that in 2050, it will increase to more than 152 million. AD has become one of the urgent problems in global medical research and public health system. Nowadays, early diagnosis and prevention of AD are the focus of current research. Traditional Chinese medicine has its unique advantages in early prevention and treatment, and it is also very important to use biomarkers for early diagnosis and screening of AD, so in this review, we will discuss which traditional Chinese medicine can prevent and treat AD, and how many biomarkers and their detection methods can play an early diagnosis role in AD.

Keyword: Alzheimer's disease, diagnosis and prevention, traditional Chinese medicine, biomarker, diagnosis and treatment technology

Alzheimer's disease is a kind of age-related degeneration of the central nervous system. The latest data show that by 2050, the prevalence of dementia will double in Europe and triple globally. New biomarkers of Alzheimer's disease detected by new PET scanning and plasma in the world include

amyloid β and phosphorylated tau, which show great prospects for clinical and research purposes [1]. In China, we mainly study traditional Chinese medicine and its prevention and treatment of AD, and explore the pathogenesis of AD to provide new ideas for developing new anti-AD drugs[2].

Objective

To explore the prevention and treatment of AD by traditional Chinese medicine, and the research on the diagnosis of AD by biomarkers and detection methods, and to combine the early prevention and treatment of traditional Chinese medicine with biomarker diagnosis and screening methods to pave the way for controlling this disease in the future.

Materials and methods

It was searched by China Academic Journals Full-text Database (China National Knowledge Infrastructure) and PubMed Database, supplemented by WANFANG DATA and VIP Database. After searching the related documents such as meeting, notice, experience summary, theoretical discussion and repeated publication in recent five years, the database was established by Excel, and the data was entered. After the second inspection, the database was revised. Export Excel database to SPSS format, and use SPSS 26.0 software to establish statistical database again for statistical analysis.

Results and discussion

After collecting and sorting out the relevant literature at home and abroad in the past five years, it is concluded that with the increasing aging of the population, the prevalence of AD has increased greatly. However, there is no effective treatment for this disease at home or abroad. In recent years, some experts and scholars began to study the methods of early prevention and screening to delay the occurrence and development of AD. Some researchers used scientific detection methods, such as biochemical techniques including serology and urine analysis, and detection of AD biomarkers for early diagnosis. Serological examination was used to detect amyloid and aspartate aminotransferase (AST) in serum. Urine analysis is used to detect amyloid in urine [3]. In the latest research, researchers began to look for the most suitable biomarkers through inflammatory factors, metabonomics, miRNA, exosomes and other ways [4].

Other researchers focus on the prevention and treatment of AD by traditional Chinese medicine and its mechanism of action. Traditional Chinese medicine can simultaneously target multiple pathways involved in AD, and this kind of research has found a «new target and new direction» for the prevention and treatment of this disease [5].Such as TCM prescription,Single TCMs and their active ingredients. These traditional Chinese medicine compounds and their extracts have good curative effects on all the symptoms of AD patients and the pathological characteristics of AD pathogenesis[6].

In short, how to establish a suitable combination of markers and explore the mechanism of action of drugs will become the research focus of early screening and early treatment of AD in the future, so as to minimize the damage caused by the disease.

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ANALYSIS OF THE EFFECT MECHANISM OF YUDIAN DECOCTION IN THE TREATMENT OF SCHIZOPHRENIA BASED ON NETWORK PHARMACOLOGY

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Abstract. In order to investigate the mechanism of action of the traditional Chinese medicine Yudian decoction in the treatment of schizophrenia, this paper applies network pharmacology techniques to analyse its target sites of action: it was found that Yudian decoction may synergise its therapeutic effects through multiple molecular functions, biological processes and signalling pathways.

Keywords: network pharmacology, schizophrenia, Yudian decoction, multi-mechanism

Objective

To study the mechanism of Yudian decoction in the treatment of schizophrenia based on network pharmacology technology.

Materials and methods

Through Traditional Chinese Medicine System Pharmacology Analysis Platform (TCMSP) by setting OB≥30%, DL≥0.18, the active ingredients were found in the Yudian decoction, and the potential targets were screened by analysis and prediction through UniProt database; the schizophrenia related targets were obtained by searching the databases as OMIM, DrugBank, GeneCards and TTD, and component-target and the other multi-level network association graph were constructed by Cytoscape software. The GO and KEGG enrichment analysis were conducted for the effective targets by DAVID database.

Results and discussion

A total of 87 active components were screened out by TCMSP, and 76 were obtained after removing the duplicates and a total of 136 potential targets were found. In total of 100 effective targets from the Yudian decoction were found after the 1445 schizophrenia targets from the disease database intersected with the potential targets in the form of Venny diagram. GO and KEGG enrichment analysis was conducted on the effective targets by DAVID database, and the enrichment results with $P<0.05$ were selected for analysis according to the p-values from small to large.

Conclusion

Results indicated that Yudian decoction might have a role in treating schizophrenia by regulating some biological processes including chemical synaptic transmission, response to drug, adenylate cyclase-activating adrenergic receptor signaling pathway and G-protein coupled receptor signaling pathway, coupled to cyclic nucleotide second messenger, and some molecular function, such as the activity of neurotransmitter receptor and excitatory extracellular ligand-gated ion channel, the binding of enzyme and identical protein. After filtered, the mechanisms might be concerned the signaling pathway of MAPK, cAMP, T cell receptor, IL-17, Calcium, et al.

Thus, the present study analysed the mechanism and target of action of Yudian decoction in the treatment of schizophrenia from the perspective of 'components-targets-pathways' by using the methods of network pharmacology and topology analysis, and preliminarily verified the pharmacological effects of Guaizaitang in the treatment of schizophrenia, which provides ideas and directions for future related research.

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EFFICACY OF COMPOUND TOAD CRISP CAPSULES ON TRANSPLANTED TUMORS IN LEWIS LUNG CANCER MICE

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Abstract. This study aimed to investigate the inhibitory effect of different doses of compound toad crisp capsules on Lewis lung cancer in C57BL/6J mice. The experimental methods included cisplatin group and compound toad crisp capsule low, medium and high dose group, and the apoptosis of tumor cells was evaluated by ELISA method, real-time PCR, western blotting, HE staining and other technologies. The results showed that compared with the model group, the dose group and cisplatin group in compound toad crisp capsules could significantly reduce tumor mass ($P<0.05$), TNF-α content ($P<0.05$), significantly upregulate the expression level of Caspase-3 mRNA and protein ($P<0.05$), and downregulate the expression level of VEGF mRNA and protein ($P<0.05$), which were statistically significant. Epithelial cell hyperplasia was seen in the two groups of local bronchi, and eosinophilic serous substance exudation was present in the alveolar space. In summary, the results of this study showed that compound toad crisp capsules had the effect of inhibiting the growth of Lewis lung cancer tumors.

Keywords: Compound toad crisp capsules, Lewis lung cancer, TNF-α, Caspase-3, VEGF

The inflammatory response runs throughout the tumor disease, and the increase of tumor necrosis factor-α (TNF-α) can enhance tumor immune activity and promote tumor cell growth and migration. Caspase-3 performs the downstream execution step of apoptosis by cutting important cellular substrates, inducing apoptosis of tumor cells, and leading to autophagy death. Experiments have shown that vascular endothelial growth factor (VEGF) can promote the production of vasoactive molecules, regulate vascular tone, immunosuppress tumor microenvironment, promote lymphoid endothelial cell growth and lead to apoptosis of tumor cells. Toad crisp has precise anti-tumor activity, which can inhibit the proliferation of tumor cells, promote the differentiation of tumor cells, and induce apoptosis of tumor cells. The compound toad crisp capsules in this study were formulated with toad crisp as the jun drug, which had the effect of inhibiting the growth and migration of lung cancer tumors and a certain degree of resistance to anti-chemotherapy drugs.

Objective

The inhibitory effect of different doses of compound toad crisp capsules on Lewis lung cancer in C57BL/6J mice was investigated, and whether compound toad crisp capsules were effective in inhibiting tumor growth.

Materials and methods

Sixty male C57BL/6J mice with SPF were selected and the mouse Lewis lung cancer cell line (LLC) was used to perform subcutaneous modeling of the right axillary of the mouse lung cancer tumor. After successful modeling, they were randomly divided into 6 groups, including 10 in each group of blank, model, cisplatin, and compound toad crisp capsules in low, medium and high dose. The cisplatin group was injected intraperitoneally every other day, and the low, medium and high dose groups were gavaged with compound toad crisp capsules every day, and the blank group was not treated. Model group gavage saline. Tumor tissue and lung tissue were removed after 14 days. Tumor suppression was measured by ELISA method, real-time PCR, western blotting and HE staining to detect TNF-α, Caspase-3, VEGF mRNA expression, protein expression and lung histopathology.

Results and discussion

The results showed that compared with the

model group, the mass of the dose group and cisplatin group of compound toad crisp capsules was significantly reduced, which could effectively inhibit the growth of Lewis lung cancer tumor. The detection of TNF-α content in tumor tissues by ELISA method, PCR and Westernblot, and the expression of Caspase-3 and VEGF showed that compared with the model group, the dose group and cisplatin group in compound toad crisp capsules could reduce the TNF-α content, significantly upregulate the expression of Caspase-3 mRNA and protein, and significantly downregulate the expression of VEGF mRNA and protein. The results of HE in lung tissue showed that compared with the model group, epithelial cell hyperplasia could be seen in the local bronchi in the dose group and cisplatin group of compound toad pastry capsule, and there was eosinophilic serous exudation in the alveolar cavity. It can be inferred that compound toad crisp capsules are effective in inhibiting the growth and metastasis of Lewis lung cancer, which may be related to up-regulating the level of Caspase-3 and the expression of TNF-α and VEGF.

With its unique advantages, traditional Chinese medicine has gradually played an important role in the treatment of lung cancer. However, compound toad crisp capsules are traditional Chinese medicine compound preparations, which contain complex and diverse ingredients, and further research is needed to further study its more precise mechanism of action.

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PRELIMINARY STUDY ON NETWORK PHARMACOLOGY AND SERUM METABOLOMICS OF COMPOUND VENENUM BUFONIS POWDER IN THE TREATMENT OF GASTRIC CANCER

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Abstract. In this paper, the mechanism of the effective active components in Compound Venenum Bufonis Powder (CVBP) on gastric cancer-related targets was analyzed by network pharmacology.Through copying the animal model, the metabolic group learns the serum differences metabolites, and the main function pathway is analyzed. Combined with the network pharmacology discovery, CVBP mainly regulates AKT1, TP53, TNF and other proteins. Argininosuccinic acid, Acetoacetic acid, Succinic acid and other metabolites, as well as Pathways in Cancer, AGE-RAGE signaling pathway in diabetic complications, PI3K-Akt signaling pathway, Alanine, Aspartate and Glutamate Metabolis M, Arginine Biosynthesisand other signal pathways treat gastric cancer.

Keywords: Compound Venenum Bufonis Powder, network pharmacology, metabolic group, gastric cancer

Gastric cancer(GC) remains the second most common tumor in China.Conventional surgery, chemotherapy, and radiotherapy are three primary therapeutic approaches to treat GC and alternative advanced target therapy has also been applied in clinic. However, the mortality rate of GC remains at substantially high level, and the average five year survival rate is lower than 30% currently.Therefore, we need to be safer and effective to treat drugs.

CVBP is a Chinese medicine Compound with a better treatment effect.Inside, it contains chronic Chinese medicine, such as curcumae rhizoma, bletillae rhizoma, salviae miltiorrhizae radix et rhizoma, arnebiae radix, strychni semen, sepiae endoconcha, inulae flos, and bufonis venenum. Among them, curdia alcohol in curcum, bufalin in Venenum Bufonis crispy has a research and reporting mechanism for gastric cancer. In order to better apply CVBP clinically, the method of network pharmacology and metabolic groups is used to

study its mechanism for treating gastric cancer, and compared with traditional chemotherapy drugs 5-FU to explain its therapeutic effect.

Objective

Use cyber pharmacology and metabolic group methods to study the treatment mechanism of Compound Venenum Bufonis Powder on gastric cancer.

Materials and methods

Filter the effective active ingredients in the 11 -flavored Chinese medicine in TCMSP and related literature. Use the SWISSTARGETPREDICTION to download the human gene name and the corresponding target protein through the Uniprot database and match the drug target. Use the String database to obtain a protein interaction network. Introduce Cytoscape3.7.2 Software to draw key chemical composition and common target genetic network diagram. The biological function and metabolic pathway analysis were used to use the David database to perform the key acting targets of CVBP. Use the BioInformatics website to draw the rich results into strip diagrams and bubble diagrams. Use Chimrax to connect the drug composition and key targets. Copy the 615 mouse model in the method of inoculation of MFC cells under the armpit. The mice are randomly divided into control groups, model groups, positive drugs (5-FU) groups, and Compound Venenum Bufonis Powder high, medium and low-dose groups for three consecutive weeks. Collecting serum metabolic data, conducting multiple statistical analysis, and discussing the treatment mechanism of CVBP on gastric cancer in combination with cyber pharmacology.

Results and discussion

By screening, the active components related to the target of cancer disease are 54, such as Palmitic acid,Linoleic acic and quercetin and the 374-related target targets are mainly ranked the top 5 targets through the regulation network target proteins such as AKT1, TP53, TNF, CTNNB1, EGFR, and Pathways in Cancer, Age-Rage Signaling Pathway in Diabetic, Prostate cancer,PI3K-Akt signaling pathway, Proteoglycans in Cancer, etc. play a therapeutic effect of anti-cancer.

Venenum Bufoniss can significantly inhibit gastric cancer disease, which is equivalent to 5-FU. The metabolic group found 20 differentiated metabolites. Venenum Bufonis crispy Powder can significantly adjust the disorders of 20 metabolites including ArginoSuccinic Acid, Acetoacetic acid, SUCCINIC Acid, SPHINGANINE, Arachidonic Acid. The pathway analysis shows that Alanine, Aspartate and Glutamate Metabolis M, Arginine Biosynthesis, Butanoate Metabolism, Sphingolipid Metabolism is the main signal channel of its regulation.

The mechanism of CVBP to treat gastric cancer reflects the characteristics of multi -target multi -way Chinese medicine. The target of its regulation as TP53, the gene expression is P53 and P53 functional losses are usually prerequisite for cancer development. More than half of human cancer will occur in P53. The TNF gene expresses TNF-α, the latter is a cytokines with a variety of biological activity and obvious anti-cancer effects. It can cause inflammatory response and cell death to inhibit the occurrence of tumors and the copy of the virus. AKT, as a primary cancer gene, can activate the PI3K-Akt signaling pathway, and this path has the role of regulating the cycle of cells, proliferation growth, and energy synthesis metabolism. Its imbalance has a promotion effect among about 30%of the tumor. In addition, by significantly reducing the content of Argininosuccinic acid and Succinic acid, the adjustment of Arginine Biosynthesis signaling channels to suppress Arginine's synthesis. Arginine is the only foundation of NO in the body. NO is the body's signal molecule and inflammatory medium, thereby reducing inflammation to inflammation Symptom response. Therefore, regulating cancer -related pathways and the occurrence of intervention inflammation may be an important phenomenal foundation for CVBP to treat gastric cancer.

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POTENTIAL TARGET AND MECHANISM OF QINGXINLIANZI DECOCTION IN TREATING NS-GIOP: BASED ON NETWORK PHARMACOLOGY AND MOLECULAR DOCKING

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Abstract. Glucocorticoids are anti-inflammatory and immunosuppressive drugs widely used in chronic non-infectious inflammatory diseases, allergic diseases and organ transplantation. Glucocorticoid-induced osteoporosis is the most common drug-induced cause of secondary osteoporosis. In recent years, it has been found that Qingrehuoxue prescription has a good therapeutic effect on the prevention and treatment of GIOP, and its related research has been paid more and more attention. This study was based on network pharmacology and molecular docking technology to explore the main active ingredients and potential mechanisms of Qingxinlianzi decoction in the treatment of glucocorticoid-induced osteoporosis, so as to provide scientific reference for better treatment and research.

Keywords: GIOP; Qingxin Lianzi decoction; Network pharm-acology; Molecular docking

Glucocorticoid (GC) is widely used in the treatment of nephrotic syndrome in children. However, while glucocorticoid plays a powerful function of improving inflammation and relieving symptoms, it will also bring a series of side effects to children such as growth inhibition, bone loss and so on. Glucocorticoid-induced osteoporosis (GIOP) is the most important secondary cause of bone loss[1].

Traditional Chinese medicine(TCM) believes that glucocorticoid has the properties of «pure Yang». After the impact of large doses of hormones, empty fire burns Yin, resulting in the damage of Yin essence in children, and insufficient essence will reduce the bone passive, resulting in the occurrence and development of GIOP. The purpose of this study is to explore the mechanism of Qingxin Lianzi decoction based on the theory of «Yin deficiency» to treat GIOP, and to provide theoretical basis for the basic research of precision treatment and prevention of GIOP by TCM.

Objective

To explore the main active ingredients of Qingxin Lianzi Decoction in the treatment of GIOP and its potential mechanism based on network pharmacology and molecular docking techniques.

Materials and methods

TCMSP platform and ETCM database were used to screen the main compounds, active ingredients and potential targets of 9 traditional Chinese medicines in Qingxin Lianzi decoction. Targets related to glucocorticoid osteoporosis were screened using OMIM database and GeneCards database. R4.2.0 software was used for GO functional enrichment analysis and KEGG pathway enrichment analysis. SailVina platform was used to conduct Autodock vina molecular docking test.

Results and discussion

In this study, the mechanism of Qingxin Lianzi decoction in the treatment of GIOP was investigated by means of network pharmacology combined with molecular dock technology. The main active ingredients of Qingxin Lianzi decoction were adenosine and kaempferol. Recent studies have found that adenosine is an important regulatory factor in bone remodeling, and adenosine A2A receptor can reduce the generation of osteoclasts and enhance bone regeneration, playing a beneficial role in preventing the onset of osteoporosis or improving the process of existing osteoporosis[2]. Kaempferol can show beneficial effects on the osteogenic differentiation of mesenchymal stem cells and osteoblasts, and studies have found that kaempferol can also promote cell proliferation, improve proliferation inhibition and apoptosis induced by GC, and may be a potential candidate for the development of new drugs against GIOP[3].

PPI network showed that the GIOP targets of Qingxinlianzi drink were HSP90AA1, AKT1, MAPK3, ESR1, ACTB, etc. Heat shock protein 90 (HSP90) is an important GR-related chaperone protein, which is considered to be a key factor in regulating the effect of GCs and is essential for activated GR translocation and trans activation[4]. AKT1 is the central mediator of angiogenic factor signaling and plays an important role in regulating osteoblast proliferation and osteoclast differentiation. Lack of AKT1 can lead to decreased bone mineral density and osteoporosis[5]. MAPK is a class of intracellular serine/threonine protein kinases that can regulate cell growth and differentiation. When MAPK downstream factor ERK is inactivated, it can block osteoblast differentiation and promote adipocyte differentiation of mesenchymal stem cells[6]. ESR1 is related to the pathological process of osteoporosis. Studies have confirmed that when the expression level of ESR1 is decreased, it will promote the formation of osteoclasts and inhibit the differentiation of osteoblasts, resulting in the

breakdown of bone resorption and bone formation homeostasis[7].

The results of KEGG pathway enrichment analysis showed that the main signaling pathways involved in the treatment of GIOP are as follows: (1) endocrine and metabolic pathways: thyroid hormone signaling pathway, estrogen signaling pathway, parathyroid hormone signaling pathway, etc. (2) Autophagy pathways: AMPK signaling pathway, PI3K-Akt signaling pathway, cAMP signaling pathway, NF-κB signaling pathway, etc. (3) Other pathways: inflammatory signaling pathways such as Th17 and IL-17, and oxidative stress signaling pathways such as HIF-1.

Molecular docking results showed that the active ingredients of Qingxinlianzi drink combined well with the main targets of GIOP treatment, indicating that the active ingredients of Qingxinlianzi drink could effectively combine with related targets to treat GIOP.

In summary, this study predicted the possible mechanism of Qingxinlianzi decoction in treating GIOP from the perspective of network pharmacology as follows: The active components of Qingxinlian Zi Yin, such as adenosine and kaempferol, act on AKT1, ACTB, HSP90AA1, ESR1, MAPK3 and other targets, thereby participating in the regulation of endocrine signaling pathways such as thyroid hormone and estrogen, autophagy pathways such as AMPK, PI3K/Akt and inflammatory signaling pathways, etc. It can improve GIOP and provide reference for subsequent clinical treatment of GIOP.

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STUDY ON RADIATION PROTECTION AND INTESTINAL MICROFLORA OF POLYSACCHARIDE FROM NONI

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Abstract. In this study, Noni polysaccharide was found to improve the quality of life of mice damaged by radiation, increase the organ index, the number of white blood cells in peripheral blood, the number of splenic nodules, the content of DNA in bone marrow, and decre -ase the micronucleus number of polychromatic erythrocytes in bone marrow, increases the activity of Superoxide dismutase(SOD), Catalase(CAT) and Glutathione peroxidase(GSH-Px) in serum and liver, and decreases the content of malondial -dehyde(MDA). In addition, Noni polysaccharide can promote the growth of the intestinal flora of radiation-damaged mice in a direction beneficial to the health of the host, while promoting the growth of probiotics and inhibiting the colonization of harmful bacteria, recovery of intestinal flora changes induced by ionizing radiation.

Keywords: Noni fruit polysaccharide, radiation damag,intestinal flora

Ionizing radiation, an effective treatment for 60% of cancer patients, causes cancer cell death but also produces toxic effects on normal cells, resulting in damage to normal cells [1] . Therefore, while the ionizing radiation is widely used, the research of radiation protection is also concerned.

Noni fruit has a long history of application in folk as food and medicine, but its intrinsic active components and mechanism of action are still relatively lacking. As one of the main active components in Noni fruit, Noni fruit polysaccharide has many biological activities, such as anti-inflammation, anti-oxidation, anti-tumor, immunomodulatory and so on [2-4] . Plant polysaccharide is a hot research topic because of its many physiological activities and wide sources.

Objective

In this study, we investigated the protective effect of Noni polysaccharide on radiation and the regulatory effect of radiation-induced intestinal microflora in mice. The purpose of this study is to provide scientific basis for the development and utilization of Noni Resources.

Materials and methods

Materials: Noni polysaccharide (extracted from laboratory) , malondialdehyde kit, Catalase kit, Superoxide dismutase kit, Glutathione peroxidase kit, total protein quantitative detection kit (Nanjing Jiancheng Institute of Bioengineering) , GIESAM staining solution (Beijing Bootonda Technology Co. , Ltd.)

Methods: the mice model of radiation injury was established by X-ray, the effects of Noni polysaccharide on the quality of life, the index of organs, the number of peripheral white blood cells, the number of splenic nodules, the content of bone marrow DNA, the micronucleus number of polychromatic erythrocytes in bone marrow, the activities of SOD, CAT, GSH-Px and the content of MDA in serum and liver were analyzed, to explore the radiation protection effect of Noni polysaccharide. In addition, 16SrRNA sequencing technique was used to investigate the effect of Noni polysaccharide on the intestinal microflora of irradiated mice.

Results and discussion

Noni polysaccharide could improve the quality of life, increase the organ index, the number of white blood cells in peripheral blood, the number of splenic nodules, the content of DNA in bone marrow, and decrease the micronucleus number of polychromatic erythrocytes in bone marrow, increase the activity of SOD, CAT, GSH-Px in serum and liver, decrease the content of MDA. In addition, Noni polysaccharide can promote the growth of the intestinal flora of radiation-damaged mice in a direction beneficial to the health of the host, while promoting the growth of probiotics and inhibiting the colonization of harmful bacteria, recovery of intestinal flora changes induced by ionizing radiation.

In conclusion, Noni polysaccharide can protect mice from radiation injury and has potential application value in the field of radiation protective agents.

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TRADITIONAL CHINESE AND WESTERN MEDICINE TREATMENT METHODS FOR CARDIOVASCULAR DISEASES

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Abstract. Cardiovascular disease, also known as circulatory system disease, is the most common disease, with a high incidence and case fatality rate, causing a serious economic burden and increasing the pressure of medical services. Circulation system refers to the organs and tissues that transport blood in the human body, mainly including the heart, blood vessels (arteries, veins, microvessels), which can be subdivided into acute and chronic, generally related to arteriosclerosis. These diseases all have similar causes, disease processes, and treatments. Statistics show that there are 330 million patients with cardiovascular diseases in China, which is the first cause of death among urban and rural residents. Among the five urban and rural residents, two died from cardiovascular disease.

Keywords: Cardiovascular disease; traditional Chinese medicine treatment; artificial blood vessels

Objective

By exploring the diversity of cardiovascular disease treatments, it provides new ideas for the future treatment of cardiovascular diseases.

Materials and methods

With the rapid development of modern medicine, some progress has been made in the prevention, diagnosis and treatment of cardiovascular diseases. Traditional Chinese medicine in the treatment of cardiovascular diseases reflects its unique advantages. In recent years, studies have shown that TCM is highly effective and safe in the treatment of cardiovascular diseases. Traditional Chinese medicine has been widely used in the treatment of cardiovascular diseases, and reflects the characteristics and advantages of overall concept, syndrome differentiation and treatment, clinical experience, rich prescriptions, multi-target, and diverse treatment methods. The combination of zhi licorice soup, active heart soup and other traditional Chinese medicine compound and acupoint application has achieved good curative effect and remarkable clinical effect.

Experts from 35 sheep in the Kemerovo Research Institute on Cardiovascular Disease have implanted artificial blood vessels in their carotid arteries to see if they can effectively reduce thrombosis.

Results and discussion

China is a developed country with traditional medicine. Traditional medicine policies and regulations are perfect, and traditional medicine has specialized institutions for management. Traditional medicine has been incorporated into the national medical and health care system, forming a complete traditional medical education system. China has formed a relatively complete TCM policy system, and relevant laws and regulations have been issued successively, providing a better legal guarantee for the development of TCM. The country with a better foundation of traditional medicine is Russia. Russian traditional medicine has established a system for providing medical services to the population using traditional diagnostic and therapeutic methods, which has been integrated into and become an integral part of the country's healthcare system, establishing a national licensing system for traditional medical activities. Regular general meetings and meetings on the scientific practice of traditional medicine are held under the auspices of the Russian Ministry of Health. According to the scientific effectiveness and the degree of use in the actual medical care, Russian traditional medicine can be divided into three categories: [1] scientifically proven, widely introduced into medical practice and has become a medical profession, including manual therapy, medical massage, reflexology. [2] Has been a scientific basis, widely introduced medical practice but do not have the medical professional status of traditional medical types, including biological resonance therapy, homeopathy, natural therapy (plant therapy, hydrotherapy, beekeeping therapy), traditional diagnosis. [3] The types of traditional medicine that have not been scientifically confirmed need further research, including some traditional medicine (Tibetan medicine, Ayurveda, yoga, traditional Chinese medicine, etc.) and folk rehabilitation.

The results show that the implantation of sheep carotid artificial blood vessels keep unobstructed 50% during a year and a half, this shows that Russia in making small caliber artificial cardiovascular road took new steps, effective small caliber artificial blood vessels can be achieved, has a good prospect, but the future there are still many defects found in the test to make up, the relevant vascular implantation after life body can reduce the risk of thrombosis.

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USING ARTIFICIAL INTELLIGENCE TECHNOLOGY TO PROMOTE THE INHERITANCE, INNOVATION AND DEVELOPMENT OF TRADITIONAL CHINESE MEDICINE IN RUSSIA

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Abstract. With the rapid development of digital information technology, the emergence of artificial intelligence technology has broken through the shackles of the conservative traditional Chinese medicine culture, and promoted the international communication of traditional Chinese medicine culture to no longer adhere to the traditional form of communication. This article mainly analyzes and discusses the application of artificial intelligence technology in the field of traditional Chinese medicine. This paper puts forward ideas and suggestions for promoting the inheritance and innovation of traditional Chinese medicine in Russia through artificial intelligence technology.

Keywords: Artificial intelligence technology,Traditional Chinese medicine, Russian,innovative

The theoretical system of traditional Chinese medicine is characterized by holistic concept and dialectical treatment. Through the method of observation, smell, inquiry and incision, the patient's condition data were collected comprehensively for analysis, sorting out and dialectical treatment. However, the four diagnostic methods of traditional Chinese medicine are faced with problems such as strong subjectivity and poor repeatability. At the same time, the data of TCM is huge, and the collection and review of relevant literature is time-consuming and labor-intensive, and it is difficult to ensure the integrity of the data. At this time, the emergence of artificial intelligence has solved the problem for the inheritance and innovation of traditional Chinese medicine. The combination of artificial intelligence technology and TCM diagnosis can collect and analyze a large amount of TCM diagnosis information, and provide functions such as electronic medical records and prescriptions for TCM. To achieve more convenient and accurate online diagnosis and treatment, relieve the pressure of manual diagnosis and treatment, and make it possible for people to enjoy high-quality TCM medical and health services. At the same time, give full play to the advantages of man-machine interworking and data sharing. This will promote the deep cooperation and innovative development of Chinese medicine in Russia, and promote Chinese medicine to go to the world faster and better.

Objective

By analyzing the advantages of combining artificial intelligence technology with traditional Chinese medicine, it provides a new model for the high-quality inheritance, innovation and development of traditional Chinese medicine in Russia.

Materials and methods

The China National Knowledge Infrastructure (CNKI) database and PubMed database were searched for relevant literature on the application progress of artificial intelligence in the diagnosis and treatment of diseases in traditional Chinese medicine in recent years. To systematically review the development status of traditional Chinese medicine in the diagnosis and treatment of diseases. This paper analyzes the difficulties faced by the inheritance, innovation and development of traditional Chinese medicine in Russia and the achievements of artificial intelligence technology in the field of traditional Chinese medicine.

Results and discussion

In recent years, the application of artificial intelligence technology in many fields such as TCM dialectics, TCM diagnosis and treatment instrument development, TCM health management, TCM Internet medicine, and TCM supply chain management has gradually been launched.

The combination of artificial intelligence technology and traditional Chinese medicine diagnosis and treatment technology of «looking, smelling, asking and cutting» has developed traditional Chinese medicine diagnosis and treatment instruments such as tongue diagnosis instrument, face diagnosis instrument, traditional Chinese medicine intelligent inquiry system and pulse diagnosis instrument. For example, hyperspectral images, color space and other technologies are used to extract the color of tongue image, analyze the shape of tongue image, and describe the segmentation of tongue image, so that tongue image acquisition is more comprehensive in terms of information acquisition, and tongue image data has an important role in indicating the status of sub-health groups, as well as the occurrence, development and change of diseases. Modern acoustic technology was used to collect and analyze the sound signals of patients with pulmonary diseases, and support vector machine, wavelet packet energy and Shannon entropy were used to classify and recognize pulmonary diseases, which provided a new idea for the classification and recognition of TCM acoustic diagnosis. The intelligent status identification system of artificial intelligence technology can give a health status

score, assess the risk of disease, and provide guidance in diet, exercise, daily life and other aspects through intelligent identification of tongue coating and face, combined with consultation. The artificial intelligence consultation system can realize contactless consultation, simplify the consultation process, and alleviate the pressure of medical staff during infectious diseases. In the process of inheritance and innovation, traditional Chinese medicine is faced with the pain points of cultivation quality control, raw material circulation supervision and traceability, pharmacy dispensing and decocting. The Chinese herbal medicine digital supply chain management information platform based on artificial intelligence, Internet, Internet of Things and big data technology can realize the cultivation, collection and processing of Chinese herbal medicine and Chinese herbal medicine decoction.

Intelligent management of the whole process of supply chain, such as cooking, prescription receiving, online prescription review, automatic dispensing and dispensing.

Therefore, the effective combination of artificial intelligence technology and Chinese medicine can better promote the development and inheritance of Chinese medicine in Russia.

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PREPARATION OF ANTI-AGING ESSENCE FROM PERSIMMON LEAF LAVONOIDS

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Abstract. Persimmon leaves are rich in flavonoids, choline, carotenoids, rutin, amino acids and other nutrients. To explore a new way to process the extract of traditional Chinese medicine. After persimmon leaves were extracted, they were used to prepare anti-aging essence. The optimum formula of the essence was optimized by single factor experiment and orthogonal experiment. The physical index and use effect of this material are persymon 0.1 g within the physical range of the combination.1 ml, 0.05 g of ceramide, 0.5 g of nicotinamide, 3 ml glycerin and 1, 2-propyl glycol. The essence prepared by this formula has a PH value of 7, good heat resistance, cold resistance and centrifugal stability. The essence is easy to spread, fine and smooth, can effectively remove free radicals, prevent photooxidation, moisturize skin, enhance cell vitality, reduce the generation of wrinkles, prevent aging.

Keywords: Elite fluid;Anti-aging;Preparation technology

This article introduces the anti aging effect of the natural active substance extract of persimmon leaf flavonoids, which can be seen in the analysis. Therefore, the active substances in the natural plant extracts can be extracted and added to cosmetics to prepare a essence liquid with Flavonoid, persimmon leaf flavonoids, grape seed oil, Ceramide and Nicotinamide as the main components, and carbomer as the matrix, which can effectively eliminate free radicals and prevent photooxidation, Nourishing the skin, enhancing skin resistance, and reducing the generation of wrinkles. The ethanol reflux method was used to extract total flavonoids from persimmon leaves, and the content was determined by UV spectrophotometry. Through single factor experiment and orthogonal Design of experiments, the formulation was screened; The essence liquid was prepared with total flavonoids of persimmon leaves, grape seed oil, Ceramide and Nicotinamide as the main drugs, and carbomer as the matrix of gel. As an effective and convenient transmission system, this essence helps to seal the moisture in the skin, soften the skin, and delay aging.

Objective

Persimmon leaves are rich in various nutrients. In order to study the diversified application of traditional Chinese medicine extracts, persimmon leaves are extracted and purified for the preparation of anti-aging essence.

Materials and methods

The matrix of essence solution, the types of humectants, and the amount of Active ingredient were investigated by single factor method, and the prescription amount of essence solution was preliminarily screened. On the basis of single factor experiment, the best process of essence liquid was determined by designing orthogonal experiment and according to the best comprehensive scoring results. The physical and chemical indexes of essence solution were tested to determine whether its stability and pH meet the requirements of external preparations. The standard curve was established

with rutin reference substance to determine the content of total flavonoids in persimmon leaves in essence solution.

Results and discussion

In this paper, the anti-aging essence of traditional Chinese medicine extract was prepared, and the quality standard was preliminarily studied. The matrix of essence solution, the types of humectants, and the amount of Active ingredient were investigated by single factor method, and the prescription amount of essence solution was preliminarily screened. On the basis of the results of the single factor experiment, the orthogonal experiment was carried out, and according to the best scoring results, the best process of the anti-aging essence of the Chinese herbal extract was determined to be A2B1C3D1, that is, the supernatant of the persimmon leaf extract was 15mL, 10 mL glycerin, 0.25 g carbomer, and 0.03 g Ceramide. The prepared essence was yellow, with proper viscosity and good fluidity. The sensory evaluation team objectively evaluated the anti-aging essence of the Chinese herbal extract, The results showed that the effect was good, and the content of Active ingredient of persimmon leaf flavonoids in the anti-aging essence of the prepared Chinese herbal extract was 35 μ g · mL-1. According to the above experiments, the best formula of the anti-aging essence solution of Chinese herbal extract was determined as follows: 0.25 g carbomer, 15 mL of persimmon leaf extract supernatant, 0.03 mL Ceramide, 10 mL glycerol, 0.5 g Nicotinamide, 3 mL Propylene glycol, 1 mL grape seed oil, 0.2 mL azone, and 0.01 mL Triethanolamine. The essence liquid prepared with this formula has good stability, no irritating and allergic reactions, easy spread, fine and smooth, good adhesion and uniformity, moderate viscosity, good absorption, and good use effect.

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THE STUDY OF THERAPEUTIC EFFICACY AND MECHANISMS OF SCHISANDRA CHINENSIS AND EVODIA RUTAECARPA COMBINED TREATMENT IN A RAT MODEL OF ALZHEIMER'S DISEASE

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Abstract. This study aims to investigate the impact and specific mechanisms of the combination of Schisandra chinensis (SC) and Evodia rutaecarpa (ER), two traditional Chinese herbs, on learning and memory impairment in a rat model of Alzheimer's disease (AD). The Morris water maze test was used to evaluate the effect of the Schisandra-Evodia (S-E) combination on learning and memory in the AD rat model. HE staining was employed to assess neuronal damage, while immunohistochemistry experiments were conducted to explore the effect of S-E on Aβ1-42 and P-tau proteins. The experimental results show that the combined use of SC and ER can more significantly clear the content of Aβ1-42 and P-Tau protein in the hippocampus of rats, thus exerting a stronger neuroprotective effect.

Keywords: Alzheimer's disease; Schisandra chinensis; Evodia rutaecarpa

Alzheimer's disease (AD) is the most common cause of dementia, closely associated with aging and cognitive impairment[1]. The two major pathological features of AD are senile plaques (SP) caused by the deposition of β-amyloid (Aβ) and neurofibrillary tangles (NFTs) resulting from the hyperphosphorylation of tau protein [2]. However, modern research has shown that targeting a single

pathological factor for treatment is not feasible, and there is a need to seek comprehensive and multi-target interventions to simultaneously address the progression of different pathological factors in AD[3]. This approach aims to obtain more effective therapeutic strategies.

Traditional Chinese herbs, Schisandra chinensis, and Evodia rutaecarpa have both been demonstrated to inhibit the progression of AD pathology[4, 5]. Therefore, we believe that the combined use of SC and ER can better exert their therapeutic effects in treating AD.

Objective

This study aims to explore the therapeutic effect of SC and ER on AD and its molecular mechanism of action, and pay special attention to the therapeutic effect of the combination of the two herbs.

Materials and methods

Fifty rats were randomly divided into five groups, including the control group, the model group (Aβ1-42), the SC group (Aβ1-42 + 2 g/kg SC), the ER group (Aβ1-42 + 2 g/kg ER), and the S-E group (Aβ1-42 + 2 g/kg S-E). Except for the control group, the other groups received intracerebroventricular injection of Aβ1-42 to establish the AD model. The Morris water maze test was used to evaluate the rats' learning and memory abilities. HE staining was performed to detect neural cell damage. Immunohistochemistry experiments were conducted to examine the levels of Aβ1-42 and P-Tau proteins in the hippocampal region.

Results and discussion

The results of the Morris water maze test showed no significant differences in motor ability among the groups of rats. However, compared to the control group, the model group exhibited longer escape latencies, while the treatment groups showed shortened escape latencies ($p < 0.05$). Specifically, the S-E group had significantly shorter escape latencies compared to both the SC group and the ER group ($p < 0.05$). In the HE staining experiment, the hippocampal neurons in the Model group displayed irregular morphology, loose arrangement, deformation, enlarged intercellular spaces, prominent tissue cavities, and evident inflammatory infiltration. In contrast, the S-E group showed relatively regular neuron morphology, more organized arrangement, and fewer signs of inflammatory infiltration compared to the Model group. In summary, S-E demonstrated a neuroprotective effect on AD rat brains and exhibited superior therapeutic efficacy compared to individual herbal treatments.

In the immunohistochemistry experiment, the positive expression levels of Aβ1-42 and P-Tau proteins in all treatment groups were significantly lower compared to the Model group. Among the three treatment groups, the S-E group exhibited the most substantial reduction in the positive expression levels of Aβ1-42 and P-Tau proteins, approaching levels similar to the Control group.

conclusion

The combined use of SC and ER can accelerate the clearance of Aβ1-42 and P-Tau protein, repair neuronal damage caused by AD, and play a neuroprotective role.

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RESEARCH PROGRESS ON THE EFFECT OF ENDOPHYTES ON THE BIOSYNTHESIS OF ACTIVE COMPONENTS IN MEDICINAL PLANTS

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Abstract. Endophytes, which have an important impact on the growth of medicinal plants and promote the formation of effective substances, widely exist in the tissues and cells of medicinal plants, so it is of great significance and potential application value to explore the endophytes of medicinal plants. In order to provide a reference for the basic research and the application of medicinal plant endophytes, in this paper, the ways of endophytes promoting the biosynthesis of medicinal substances in medicinal plants were summarized, including direct synthesis, elicitor effect and biotransformation.

Keywords: endophyte, medicinal plant, bioactive ingredient, elicitor, biotransformatio

Plant endophytes, a group of microorganisms, live in the plant without causing the obvious infecting symptoms of host plants. Plant endophytes can promote the synthesis of chemical components in the host plants, produce the same or similar chemical components as the host plants [1], or modify the structures of chemical components to enhance their pharmacological activities [2].

Objective

To summarize the ways of endophytes promoting biosynthesis of active components in the medicinal plants, so as to provide a reference for improving the quality of medicinal materials by using endophytes.

Materials and methods.

Searching the databases of Pubmed, ScienceDirect, Web of Science, SciFinder, Google Scholar, China National Knowledge Infrastructure (CNKI), VIP and Wan-fang in recent 10 years with "medicinal plant", "endophytes", "elicitor" and "biotransformation" as keywords. These research materials were used to analyze the effect of endophytes on the biosynthesis of active components in medicinal plants

Results and discussion

The main ways for endophytes to promote the biosynthesis of active components in medicinal plants are as follows:

1. Synthesized the same bioactive components as the host plants

On the one hand, endophytes can directly synthesize various active compounds, such as paclitaxel, camptothecin and ginsenosides. On the other hand, the metabolites synthesized by endophytes can be used as precursors, which are catalyzed by the synthetic enzymes systems of host plants to further produce active components, thus affecting the accumulation of secondary metabolites in the host plants [3]. Studies have shown that almost all endophytes isolated from medicinal plants with the ability to directly synthesize bioactive components in a medium which provides only the necessary components for survival[4].

2.Elicitor effect

Elicitors can induce one or more reaction in plant cells to accumulate secondary metabolites[5]. At present, there are two main kinds of endophytes elicitors: thallus and metabolites, in which thallus include living cells and mycelium extracts. Host plants can be induced by endophytes to biosynthesis various bioactive compounds, such as salvianolic acid, artemisinin, and dendrobine.

3. Biotransformation

The intracellular or extracellular enzymes metabolized by endophytes can be used to biotransform chemical substances to bioactive compounds, or modify the structure of bioactive compounds [6,7]. Endophytes can produce various compounds by biotransformation, such as rare ginsenosides.

It is of great significance to screen endophytes with potential application value from medicinal plants, especially those that can effectively promote the biosynthesis and transformation of medicinal substances. However, most of the existing studies focus on the biosynthesis of active components in endophytic fungi, and there are still large gaps in endophytic bacteria and endophytic actinomycetes. At the same time, endophytes can produce the same or similar active components as host medicinal plants, so it is necessary to clearly distinguish whether the active components are produced by the host plants or endophytes, or both. This will be helpful for exploring the biosynthesis mechanism of active substances. In a word, endophytes in medicinal plants have broad application and development prospects. There are a large number of endophytes with potential application value in medicinal plants need to be further explored.

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DETECTION OF TRADITIONAL CHINESE MEDICINE FRACTURE CONTUSION CAPSULE

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Abstract. Fracture contused capsule mainly consists of pig bone (made), cucumber seed (fried), natural copper (calcined), native turtle worm, frankincense (made), blood, myrrh (made), safflower, rhubarb and angelica. In this paper, the quality of fracture contusion capsule was evaluated from the aspects of character, identification, moisture and content determination, which provided guarantee for the safety of the product.

Keywords: fracture contusion capsule; Identify; Content determination

Fracture contusion capsule has definite curative effect and is one of the first choice drugs for the injury of fall and beating. It contains warm meridian dispelling cold drugs, such as aconite, dried ginger, cinnamon, these drugs have the effect of warm meridian dispelling cold, can make the fracture site to avoid cold and vascular contraction, after accelerating blood circulation also help the fracture site nutrition supply, promote its recovery. Continuous tendon bone-setting drugs, which have soil yuan, eucommia, intermittent, dog ridge, these drugs can play the role of continuous tendon bone-setting, can make the fracture site heal as soon as possible, to avoid delayed healing and non-healing. Fracture contusion capsules belong to the blockage of blood stasis. The main component of safflower in prescription is hydroxyl safflower yellow A.The main active components of rhubarb are aloe emodin, emodin, rhein, chrysophanol and emodin methyl ether.Blood exhaustion has the effect of promoting blood circulation and relieving pain, eliminating stasis and stopping bleeding, and the main active ingredient is blood exhaustion.

Objective

To control the quality of fracture contusion capsules and to ensure the safety of the products.

Materials and methods

The quality of fracture contusion capsule was evaluated by microscope observation, TLC identification of rhubarb and safflower, and HPLC determination of hematodrin.

Results and discussion

Fracture contusion capsule was a hard capsule with yellowish brown to brown powder and spicy taste. The microscope showed safflower, rhubarb, native turtle and natural copper. Rhubarb and safflower were detected by TLC. Moisture requirements are not more than 7.0%; The limit of difference in loading is ±7%; The disintegration time limit is required to be complete disintegration within 25 minutes; The content determination was determined by the content of each capsule containing hematogenin ($C_{17}H_{14}O_3$), that is, no less than 69 micrograms. In summary, according to the pharmacopoeia, fracture contusion capsule meets the quality standards, which can provide a basis for drug supervision and quality standards.

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RESEARCH PROGRESS OF AROMATIC TRADITIONAL CHINESE MEDICINE IN THE TREATMENT OF DEPRESSION

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Abstract. Depression is a chronic mental disorder characterized by cerebral abnormalities, which poses a threat to human life and health due to its high prevalence, rates of suicide, death, and recurrence. The main treatment of depression depends on western medicine and antidepressants. The limitations of these drugs limit their wide clinical application. These limitations restrict their widespread clinical application. However, traditional Chinese medicine (TCM) offers significant advantages in treating depression by targeting main and accompanying symptoms, enhancing patient compliance. Currently, there is a limited number of TCM varieties specifically focused on treating depression. Therefore, in-depth research on TCM ingredients and mechanisms for depression treatment is necessary to provide new insights for drug development.

Keywords: Depression, Aromatic TCM , Bupleurum, Acorus tatarinowii, 5-HT

Objective

This review summarizes the research progress of aromatic Chinese herbs in the treatment of depression, aiming to provide references for further in-depth research and clinical applications of this type of medication in treating depression.

Materials and methods

The information was searched from the scientific literature published on the online databases (including PubMed, CNKI, and EMbase).Collect RCTI clinical literature on the treatment of primary depression with traditional Chinese medicine (TCM) formulas. The search period is from the establishment of the database to July 2023. Our search strategies are traditional medicine, depression.

Results and discussion

Aromatic diaphoretics

As the main component of the Chinese herb Bupleurum, Saikosaponin D has been identified as an effective ingredient for its antidepressant effect[1]. However, research on its antidepressant mechanism is still in the early stages. Studies have shown that Saikosaponin D has a significant regulatory effect on the hypothalamic-pituitary-adrenal axis and may play an important role in regulating neural function in the hippocampus and improving depression. Saikosaponin D may induce autophagy in the hippocampus of rats and negatively regulate the formation of NLRP3 inflammasomes, thereby reducing the levels of pro-inflammatory cytokines. Furthermore, it may regulate tryptophan-kynurenine metabolism by inhibiting the enzyme IDO, thus alleviating depressive states in rats.

Aromatic tonics

The monoterpenes and their glycosides in the traditional Chinese medicine Radix paeoniae Alba are believed to be the main components responsible for its antidepressant effects, with Paeoniflorin being a potential key active ingredient[2]. Monoterpenes, represented by Paeoniflorin, and polyphenols, represented by 1,2,3,4,6-penta-O-galloylglucose, are the main constituents of BS-60E. Research has shown that Paeoniflorin possesses clear antidepressant effects, as it protects against oxidative stress-

induced damage in PC12 cells induced by cobalt chloride and improves depressive-like behavior in mice. Gallic acid, represented by 1,2,3,4,6-penta-O-galloylglucose, can reduce the forced swimming and immobility time in the forced swim test in mice.

Aromatic Opening Herbs

Aromatic opening herbs increase neurotransmitter levels in the brain, such as 5-HT, NE, and DA, which have antidepressant effects[3]. Acorus tatarinowii activates the mTOR signaling pathway in the hippocampus of rats with depression, enhancing protein synthesis and synaptic plasticity, resulting in antidepressant effects. The main component of Acorus tatarinowii, α-asarone, reduces the level of phosphorylated CREB in the hippocampus of mice, which is involved in nicotine withdrawal, and decreases depressive-like behavior. β-asarone increases the levels of CREB, BDNF, tyrosine kinase receptor B, p-ERK, and Bcl-2 in the hippocampus of rats with depression, while reducing the level of pro-apoptotic protein Bad. These actions exert antidepressant effects by activating the ERK signaling pathway and promoting anti-apoptosis.

Aromatics play a significant role in traditional Chinese medicine for treating depression. Recent research on Chinese patent medicines, primarily composed of aromatic herbs, has shown progress in the field of depression. Studies have revealed that these herbs can inhibit excessive release of excitatory amino acids and regulate the release of neurotransmitters such as NE, 5-HT, and DA. To gain further understanding, it is beneficial to combine various systems biology methods like network pharmacology, transcriptomics, and metabolomics to investigate the mechanisms and signaling pathways through which aromatic herbs regulate depression. This comprehensive approach targeting multiple components, targets, and pathways will provide valuable research evidence to expand the clinical application of aromatics in treating depression.

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THE PROTECTIVE EFFECT OF ASTRAGALIN ON Aβ25-35 INDUCED PC12 CELL DAMAGE WAS MEDIATED BY ER-P38/MAPK

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Abstract. PC12 cells were divided into blank group, model group (Aβ25-35), positive drug group (E2+Aβ25-35), drug administration group (Astragalin+Aβ25-35), ER blocker group (Astragalin+Aβ25-35+ICI182780), P38 blocker group (Astragalin+Aβ25-35+SB203580) by MTT method the screening of Aβ25-35 concentration was carried out, and the effective concentration of Astragalin was screened; the protein content of cellular ERβ, P-P38/P38, Bcl-2, Caspase-3 were detected by Western Blot method.

Keywords: Astragalin; Alzheimer disease; Aβ25-35; ER-P38/MAPK; PC12 cells

Alzheimer disease (AD) is a Degenerative disease of the nervous system, and its possible pathogenesis is numerous and unclear. Estrogen binds to estrogen receptor (ER) in the nervous system, activates related signal pathways, affects learning and memory, and affects AD. There is a similarity between traditional Chinese medicine for tonifying the kidney and modern medicine for supplementing estrogen, indicating that traditional Chinese medicine for tonifying the kidney may exert anti AD effects through estrogen effects. Astragalin is one of the main components of Rhizoma Drynariae, which can reduce neuronal damage in cerebral cortex and Aβ Patch deposition.

Objective

The neuroprotective effect of Astragalin was

verified through the ER-P38/MAPK signaling pathway, and the mechanism of Astragalin's anti AD effect was further clarified.

Material and method

The proliferation rate of PC12 cells was measured by MTT assay to explore the optimal intervention concentration of Aβ25-35 and Astragalin. The cells were modeled and administered according to the proliferation rate, and the protein contents of ERβ, P-P38/P38, Bcl-2 and Caspase-3 were detected by Western Blot.

Results and discussion

MTT results showed that the optimal concentration of Aβ25-35 was 2×10-2μmol×L-1. Further screening of the effective concentration of Astragalin showed that the cell proliferation rate was significantly decreased in the model group (P<0.01) and significantly increased in the drug administration group (P<0.01), and the cell proliferation rate was significantly decreased after the administration of ER blocker and P38 blocker (P<0.01); the Western blot results showed that the contents of ERβ and Bcl-2 were significantly increased in the administration group (P<0.01), and the levels of P-P38/P38 and Caspase-3 were significantly decreased (P<0.01), and after administration of ER blocker, the levels of ERβ and Bcl-2 were significantly decreased (P<0.01), and the levels of P-P38/P38 and Caspase-3 were significantly increased (P<0.01), and after administration of P38 blocker, the Bcl-2 levels were significantly reduced (P<0.01) and the levels of P-P38/P38 and Caspase-3 were significantly increased (P<0.01). The β-amyloid hypothesis is one of the many pathogenesis of AD. The Aβ25-35 fragment produced by Aβ is neurotoxic to nerve cells and can be used to build AD models. Therefore, Aβ25-35 was used to model PC12 cells in this experiment. In the brain, ER can bind to membrane receptors to mediate the p38/MAPK signaling pathway to play a neuroprotective role. The p38/MAPK signaling pathway will be activated to induce tau protein phosphorylation after Aβ-induced injury of neuron cells, suggesting that the onset of AD can lead to increased expression of phosphorylated p38 protein and promote apoptosis of nerve cells. The Bcl-2 family and Caspase-3 family play a key role in apoptosis, and the pro-apoptotic protein Bax and anti-apoptotic protein Bcl-2 are balanced in normal cells. If the expression of Bax increases relative to Bcl-2, Bax binds to the Caspase family to activate and promote apoptosis of Caspase-3 and promote cell apoptosis.

In this study, after the administration of ER blockers and p38 blockers, the contents of ERβ and Bcl-2 decreased significantly, while the contents of P-P38/P38 and Caspase-3 increased significantly. After Astragalin treatment, ERβ and Bcl-2 were significantly up-regulated, while P-P38/P38 and Caspase-3 were significantly down-regulated. The results indicated that p38/MAPK signaling pathway may be induced by binding to estrogen receptor, thereby up-regulating Bcl-2 expression, silencing Caspase-3 expression, inhibiting apoptosis and improving cell damage. It provides theoretical basis for the development and application of AD drugs.

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RESEARCH PROGRESS ON MECHANISM OF TRANSFORMATION SAPONINS BY MICROBIAL FERMENTATION

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Abstract. Saponins are an important chemical component present in natural drugs, which can be converted into various derivatives through microbial technology. The commonly used microorganisms are mainly bacteria and fungi, the transformation reaction mainly involves hydrolysis to remove sugar groups, in order to improve the bioavailability and pharmacological activity of the transformation products. In addition, through hydroxylation, glycosylation, carbonylation, esterification and other reactions, the adverse reactions of the substrate can be reduced and the drug efficacy can be improved. The types of microbial transformation pathways of triterpenoid saponin are rich, while the microbial transformation of steroidal saponins is mainly based on the mutual transformation between saponins and sapogenins, which is an effective way to realize the large-scale production of some special saponins. This article will take triterpenoid saponin and steroidal saponins as examples to explain the mechanism of microbial transformation of saponins, and provide an expanded research space for new drug research and development.

Keywords: Microbial fermentation; Triterpenoid saponin; Steroid saponins; Biotransformation; Mechanism

Saponins are important active ingredients in medicinal plants, widely present in traditional Chinese medicine such as Astragalus membranaceus (Fisch.) Bunge, Polygonatum sibiricum Delar. ex Redoute, Panax notoginseng (Burk.) F.H.Chen, Platycodon grandiflorus (Jacq.) A.DC, Panax ginseng C. A. Mey., Glycyrrhiza uralensis Fisch., Bupleurum chinense, Anemarrhena asphodeloides Bunge, and Ganoderma lucidum (Curtis) P. Karst.. They have pharmacological effects such as protecting the heart, enhancing immunity, anti-inflammatory, and antiviral. As an amphiphilic compound with high relative molecular weight, saponins are composed of lipophilic saponins and hydrophilic sugar chains [1]. According to the different structure of aglycones, they can be divided into triterpenoid saponin and steroidal saponins. The aglycones of triterpenoid saponin are composed of 30 carbon atoms, and the aglycones of steroidal saponins are composed of 27 carbon atoms. According to the number of linked sugar chains, they are divided into monosaccharide chain saponins, disaccharide chain saponins, and trisaccharide chain saponins. There are also structures that connect other functional groups at the end of the sugar chain through ester bonds. Due to the large relative molecular weight, poor membrane permeability and low bioavailability of saponins in vivo, they can be converted into small molecular compounds by breaking some sugar chains and other methods to promote absorption, and can also be modified by Biotransformation to improve the absorption and utilization of drugs and enhance the role of drugs [2].

Microbial transformation is the use of microorganisms to ferment drugs, catalyze some components of drugs to undergo specific chemical reactions through enzymes and enzyme products produced by microorganisms, and carry out structural modification to obtain new compounds or other drug components. Microbes can use polysaccharide, fiber, protein and other components of drugs to obtain nutrients in the fermentation process, and the low active active ingredient of drugs are transformed into high active active ingredient. Studies have shown that microbial transformation has the advantages of strong reaction specificity, less by-products, mild conditions, environmental friendliness, and strong microbial reproduction, short growth cycle, and good adaptability. Microbial fermentation transformation technology is widely used in natural drug synthesis and structural modification to achieve the purpose of reducing toxicity and improving efficiency [3].

Objective

In this paper, ginsenoside, glycyrrhetinic acid, astragaloside, dioscin, timosaponin and other medicinal materials are used as examples to analyze the microbial transformation mechanism of saponins, in order to provide reference for the biosynthesis of saponins and the development of new drugs

Results and Discussion

The triterpenoid saponin biotransformation of ginseng, liquorice and astragalus is dominated by fungi, and the reaction mechanism is mainly hydrolytic reaction, which usually occurs at the C-3, C-6, C-20 positions, etc. The removal of sugar groups can not only improve the bioavailability, but also selectively enhance the anticancer, antiviral, anti-inflammatory and other pharmacological activities; In addition to hydrolysis reaction, it also includes deacetylation, hydroxylation, glycosylation, carbonylation, acetylation and other reactions, which specifically occur at C-1, C-6, C-7, C-15, C-24, C-27, etc., reducing the adverse reactions of the substrate, improving the efficacy, and facilitating the research and development of drugs.

In the microbial transformation of steroidal

saponins, most of them are the mutual transformation between saponins and sapogenins. Hydrolysis reaction usually occurs at C-3 and C-26, hydroxylation mainly occurs at C-7, C-11, C-12, C-15, C-21, C-25, etc., reduction reaction occurs at C-20, and glycosylation reaction easily occurs at C-26. Compared with triterpenoid saponin, the microbial transformation mechanism of steroidal saponins is simple and involves few reaction types, but it provides a new method for large-scale production of specific derivatives.

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SERUM AND URINE METABOLOMICS TO STUDY THE POTENTIAL MECHANISM OF «SCHISANDRA-EVODIA» HERB PAIR IN THE TREATMENT OF ALZHEIMER'S DISEASE

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Abstract. In this study, the potential mechanism of action of «Schisandra-Evodia» herb pair (S-E) in rats with Alzheimer's disease (AD) disease was investigated through serum and urine-based metabolomic methods. The metabolomic results showed that a total of 40 serum metabolites and 38 urine metabolites were reversed after S-E intervention, mainly involved in taurine and hypotaurine metabolism, glycerophospholipid metabolism, linoleic acid metabolism, α-linolenic acid metabolism and arachidonic acid metabolism. The results elucidate the biochemical mechanism and metabolic pathway of «Schisandra-Evodia» herb pair in the treatment of AD, which provides a basis for subsequent clinical application.

Keywords: Alzheimer's disease; «Schisandra-Evodia» herb pair; Metabolomics

Alzheimer's disease is a common neurodegenerative disease, and early symptoms may include memory loss, thought loss, language loss, cognitive decline, hallucinations, and behavioral changes. It is a chronic disease with limited treatment options, so it is necessary to find a comprehensive treatment. Since Traditional Chinese Medicine (TCM) can act on multiple targets and exert synergistic effects, the use of TCM to treat AD can be used as a new strategy. Current studies have proven that «Schisandra-Evodia» herb pair is a promising treatment option.

Metabolomics is a rapidly evolving field of research focused on the study of metabolites, which are small molecules produced and utilized by cells in the body. Metabolomics involves the analysis of metabolites in biological samples such as blood, urine, or tissue, and by measuring the levels of different metabolites, it is possible to gain insight into the metabolic pathways and processes occurring in the body. This information can be used to identify biomarkers of disease, as well as to develop new treatments.

Objective

This study aims to investigate the potential mechanism of action of S-E in rats with Alzheimer's disease (AD) through serum and urine-based metabolomic methods.

Materials and methods

AD rats were randomly divided into 5 groups (n=8): control group, AD model group, Schisandra chinensis (SC) group, Evodia rutaecarpa (ER) group, and S-E treatment group. Except for the control group, the other groups received intracerebroventricular injection of Aβ1-42 to establish the AD model.Serum and urine from rats are detected by UPLC-MS/MS, serum and urine metabolomics are performed to analyze potential biomarkers and metabolic pathways.

Results and discussion

PCA was used for cluster trend evaluation, and

the S-E group and the control group were separated from the model group, and the S-E group tended to the control group, indicating that the metabolism changed significantly after administration. At the same time, OPLS-DA analysis was performed on each group of samples, and the separation effect of each group was good, and the R2 and Q2 values were greater than 0.5, indicating that the model was not overfitted and subsequent data could be analyzed. A total of 40 serum common differential metabolites and 38 urine differential metabolites were identified by HMDB database matching. Metabolomic analysis showed that 40 serum metabolites and 38 urine metabolites were reversed, mainly involved in taurine and hypotaurine metabolism, glycerophospholipid metabolism, linoleic acid metabolism, α-linolenic acid metabolism and arachidonic acid metabolism. These findings provide insight into the pathogenesis of Alzheimer's disease and suggest that the «Schisandra-Evodia» herb pair may have therapeutic potential for AD.

Conclusion

«Schisandra-Evodia» herb pair can play a role in the treatment of Alzheimer's disease by regulating metabolic pathways such as amino acids and lipids.

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EXPLORING THE DISEASES TRIGGERED BY COLD IN RUSSIA AND NORTHERN CHINA FROM THE THEORY OF "COLD ENVELOPING FIRE" IN CM

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Abstract. This paper introduced the types, etiology, pathogenesis, treatment principles, methods and curative effect of the diseases with "cold enveloping fire" type caused by the cold and dry climate in Chinese Medicine (CM). By referring to relevant literatures in China National Knowledge Internet (CNKI), we found that the diseases included cold, cough and wheezing, chest tightness and other lung diseases, rheumatoid arthritis-associated interstitial lung disease (RA-ILD) and psoriasis. The etiology and pathogenesis are that the cold and dry external environment makes the patient's pores blocked, resulting in the heat of the body can not be released, and eventually invade the viscera. The treatment principle is to use warm herbs to make the patient sweat, open the blocked skin pores, and finally allow the heat in the body to dissipate. For medication, CM herbal prescriptions (Guizhi, Daqinglong, MaFangXijiaoDihuang, MaXingShiGan Decoction) have achieved remarkable results.

Keywords: Cold enveloping fire, Sweating and surface relieving method

Alzheimer's disease is a common neurodegenerative disease, and early symptoms may include memory loss, thought loss, language loss, cognitive decline, hallucinations, and behavioral changes. It is a chronic disease with limited treatment options, so it is necessary to find a comprehensive treatment. Since Traditional Chinese Medicine (TCM) can act on multiple targets and exert synergistic effects, the use of TCM to treat AD can be used as a new strategy. Current studies have proven that «Schisandra-Evodia» herb pair is a promising treatment option.

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Objective

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Materials and methods

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PROGRESS IN THE STUDY OF THE PHARMACOLOGICAL EFFECTS OF RADIX SCUTELLARIAE, A TRADITIONAL CHINESE MEDICINE, AND INNOVATIVE THERAPEUTIC APPROACHES TO RELATED DISEASES

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Abstract. The traditional Chinese medicinal herb Radix Scutellariae has a long history and was first recorded in the Shennong Ben Cao Jing (Classic of the Materia Medica of the Divine Husbandman), and it is a commonly used Chinese medicinal herb in clinical practice in China, which is characterized by a variety of pharmacological effects and has a wide range of prospects for clinical application. This paper summarizes the innovative therapeutic methods and pharmacological effects of the traditional Chinese medicine Radix Scutellariae in clinical applications with reference to the relevant literature in recent years, aiming to provide reference for the in-depth study of the traditional Chinese medicine Radix Scutellariae.

Keywords: Radix Scutellariae, therapeutic approaches, pharmacological effects

Scutellaria baicalensis Georsi is the dry root of Radix Scutellariae, family Lamiaceae. Its main components are flavonoids, and more than thirty kinds of structures have been determined. As a traditional Chinese herbal medicine, Radix Scutellariae has the efficacy of clearing heat and drying dampness, diarrhea and detoxification, stopping bleeding, and tranquilizing the fetus. Radix Scutellariae is widely used as a medicinal plant in China, and with the emergence of new dosage forms of Radix Scutellariae extract, it also provides a brand-new approach to the treatment of a variety of clinical diseases.

Objective

To summarize and investigate the innovative therapeutic approaches and pharmacological effects of Radix Scutellariae, a traditional Chinese medicinal herb, on related diseases.

Materials and methods

Literature on the pharmacology, pharmacology, pharmacokinetics and clinical applications of the traditional Chinese medicine Radix Scutellariae was searched through several databases, such as China Knowledge, Wanfang Data Knowledge Platform, Wipro, Palm Qiao Research,SCI-HUB and Semanticscholar in recent years, and summarized and generalized.

Results and discussion

After a literature survey, it was found that Radix Scutellariae is widely distributed in the world, with more than 300 species of the same genus, and the main active ingredients are baicalein, baicalin, baicalin, hanhuangqin, and hanhuangqin. Radix Scutellariae has pharmacological effects such as antipyretic, analgesic, anti-inflammatory, antibacterial, antiviral, sedative, hypotensive, hypolipidemic, hepatoprotective, cholagogue, antiallergic, and relieving smooth muscle spasm. Clinically, it is mainly used in the treatment of pediatric acute respiratory infection, infectious hepatitis, chronic bronchitis, acute bacillary dysentery, pyelonephritis, and a variety of gynecological diseases. It is worth emphasizing that Radix Scutellariae is well known for its excellent antibacterial and antiviral effects, and has the title of «herbal antibiotic» and «natural antibiotic», and Radix Scutellariae has played an important role in the fight against the new coronavirus outbreak by means of traditional Chinese medicine. Radix Scutellariae played an important role in the fight against the new coronavirus epidemic by means of traditional Chinese medicine, and in combination with other herbs, it effectively inhibited the spread of the pneumonia virus in the patient's body, and its powerful antimicrobial, antiviral, and antioxidant effects have been further proven. However, the prescriptions of traditional Chinese medicine often contain multiple herbs, and the therapeutic effect on the disease is the result of the joint action of multiple herbs. There are dozens of well-known prescriptions using Radix Scutellariae as an ingredient, such as Radix Scutellariae ointment, Radix Scutellariae soup, diarrhea heart soup, and Xiao Chaihu soup. In addition, the main component of Radix Scutellariae is baicalin, which is poorly water-soluble and fat-soluble, resulting in low bioavailability and limiting its clinical efficacy. In recent years, research on the preparation of new dosage forms of baicalin using new technologies to improve its physical properties has been progressively deepened, such as the preparation of baicalin nanopreparations, solid dispersions, and liposomes.

Therefore, compared with the traditional soup, pill and powder, the bioavailability of the new dosage form has been greatly improved, and it can play a better role in anti-inflammatory, antioxidant and anti-tumor effects through targeted therapy, which opens up a new way for the treatment of a

variety of inflammatory diseases and tumors and other diseases, and is an important impetus to the innovation of the treatment of related diseases in the clinic.

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EFFICACY EVALUATION OF MERREMIA VITIFOLIA IN NONALCOHOLIC FATTY LIVER DISEASE

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Abstract. A mouse Model of nonalcoholic fatty liver disease (NAFLD) was established by GAN diet. The mice were divided into 5 groups: blank (Control) group, model group, simvastatin (SIM) group, Merremia vitifolia high dose (MV-H) group and Merremia vitifolia low dose (MV-L) group. The serum levels of aspartate aminotransferase (AST), alanine aminotransferase (ALT), triglyceride (TG), total cholesterol (CHOL) and low-density lipoprotein cholesterol (LDL-C) were measured, and liver HE staining and oil red O staining were used to investigate the preventive and therapeutic effects of Merremia vitifolia on NAFLD.

Keywords: Traditional Chinese medicine, NAFLD, Efficacy evaluation

Non-Alcoholic Fatty Liver Disease (NAFLD) is a chronic disease caused by abnormal liver metabolism. Its pathogenesis refers to excessive lipid accumulation in the liver without a clear cause and long-term intake of large amounts of alcohol. The pathogenesis of NAFLD is complex, and there is no specific drug for the treatment of NAFLD. In the face of this disease with complex causes, traditional Chinese medicine, which is mainly characterized by multi-components and multi-targets, has its own unique advantages. In this study, a mouse model of nonalcoholic fatty liver disease (NAFLD) was established by GAN diet and treated with Merremia vitifolia to evaluate its pharmacological effect on NALFD.

Objective

To explore the pharmacodynamic effects of Merremia vitifolia on NALFD, and to provide data support for the research of complex diseases in the world today.

Materials and methods

75 SPF male C57BL/6J mice were adaptively fed for 7 days and randomly divided into 5groups: Control group, Model group, Simvastatin (SIM) group, MV-H group and MV-L group. The rats in the Control group were fed with normal diet, and those in the other groups were fed with GAN diet to establish the model and measure the body weight every week for 9 weeks. From the 6th week, the rats were given drug intervention (once a day), in which the SIM group was given 5.2 mg/kg, the MV-L group was given 1.6 g/kg, and the MV-H group was given 3.2g/kg.

The contents of total cholesterol (CHOL), triglyceride (TG), alanine aminotransferase (ALT) and aspartate aminotransferase (AST) in serum of mice were determined by automatic biochemical analyzer. The serum level of low-density lipoprotein cholesterol (LDL-C) was measured by ELISA.

HE staining was used to observe the structure of liver lobules and the pathological changes of hepatocyte morphology. The other part was frozen in liquid nitrogen in a cryopreservation tube, embedded in OTC embedding agent and sliced through a freezing microtome, and then oil red O staining was used to observe the degree of fat accumulation in liver tissue.

Results and discussion

Alcoholic fatty liver disease can be divided into three clinical stages. Simple fatty liver, steatohepatitis and fatty cirrhosis. The stage of simple fatty liver is mainly characterized by increased hepatic fat accompanied by lipid metabolism disorder, that is, a large number of triglycerides accumulate in the liver, and the levels of AST, ALT, TG, CHOL and LDL-C in the blood increase. ALT and AST are important indicators of liver function, and the former is mainly distributed in liver cytoplasm, reflecting the function of liver cell membrane. The latter is mainly distributed in hepatocyte plasma and hepatocyte mitochondria, reflecting the physiological function of liver organelles, and the elevation of both indicates liver injury.TG, CHOL and LDL-C are the gold standard

of blood lipids, and their elevation is an important manifestation of blood lipemia. With the continuous accumulation of lipids in the liver, there will be a «second strike hypothesis» including the increase of inflammatory factors, mitochondrial dysfunction, and oxidative stress, which will cause fibrosis in the liver tissue, and then lead to steatohepatitis and fatty cirrhosis.

Our experimental results show that Merremia vitifolia can reduce the serum ALT, AST, TC, TG ($P < 0.01$) and LDL-C ($P < 0.01$) of high-fat diet mice, improve the liver tissue steatosis and abnormal lipid deposition caused by high-fat diet, and effectively prevent the deterioration of non-alcoholic fatty liver disease.

This experiment shows that Merremia vitifolia can improve the metabolic comprehensive disorder caused by NALFD caused by GAN diet, reduce the abnormal accumulation of liver fat, and prevent the deterioration of NAFLD.

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RESEARCH PROGRESS IN THE TREATMENT OF CARDIOVASCULAR DISEASES WITH ACTIVE INGREDIENT OF LIGUSTRAZINE AND ITS DERIVATIVES IN LIGUSTICUM WALLICHII

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Abstract. Cardio cerebral Vascular disease is a common disease that seriously threatens the health of human beings, especially the middle-aged and elderly people over 50 years old. It is characterized by high morbidity, high disability rate and high mortality, and the mortality rate ranks first. Chuanxiong, on the other hand, is a blood activating and blood stasis resolving medicine with the effects of promoting blood circulation, relieving pain, dispelling wind and dampness, and promoting qi and qi stagnation. In recent years, with the in-depth study of Traditional medicine on Chuanxiong, it has shown more and more significant advantages in the treatment of cardiovascular diseases. Therefore, this article reviews the pharmacological effects and clinical application of Ligusticum chuanxiong in cardiovascular diseases in recent years, with a view to providing a theoretical basis for the clinical application of Ligusticum chuanxiong.

Keywords: Cardiovascular disease, Ligusticum wallichii, TCM, Derivatives, ROS

Objective

This article reviews the research progress of ligustrazine and its derivatives in the treatment of cardiovascular diseases, in order to provide reference for further in-depth research and clinical application of this kind of ingredients in the treatment of cardiovascular diseases.

Materials and methods

The information was searched from the scientific literature published on the online databases (including PubMed, CNKI, Wanfang and Weipu). Collect literature on the treatment of Cardiovascular disease with traditional Chinese medicine (TCM) formulas. The search period is from the establishment of the database to July 2023. Our search strategies are traditional medicine, Cardiovascular disease,Ligusticum wallichii.

Results and discussion

ligustrazine

Ligustrazine, as the main component of Ligusticum chuanxiong, is a Active ingredient for the treatment of cardiovascular diseases. Studies have shown that reactive oxygen species (ROS)[1], as oxidants and cell signal transduction agents, can induce endothelial cell apoptosis, damage blood vessels, Lipid peroxidation, etc[2]., thus leading to cardiovascular disease. Therefore, reactive oxygen species play an important role in cardiovascular disease and redox signal transduction. As an antioxidant, ligustrazine can regulate oxidative stress and the production of reactive oxygen species. At present, Atherosclerosis is considered as the main cause of cardiovascular disease. Among them, endothelial cell injury and platelet aggregation play an important role in the development of Atherosclerosis. Ligustrazine has the effects of improving microcirculation, expanding

Arteriole, anti platelet aggregation, antioxidant, calcium antagonist, anti fibrosis, etc. Ligustrazine can inhibit the expression of Fas/FasL protein in myocardial cells of rats with viral Myocarditis, inhibit myocardial hypertrophy caused by pressure overload, reduce cardiomyocyte apoptosis, and alleviate myocardial injury. Platelet aggregation can cause microcirculation disorders under pathological conditions. For platelet agglutination induced by Adenosine diphosphate in vitro, ligustrazine can not only prolong the agglutination time, but also depolyze the agglutinated platelets. Ligustrazine affects platelet function and thrombosis by regulating the balance between Thromboxane A2 and Prostacyclin. Ligustrazine can achieve anti Atherosclerosis effect by inhibiting the expression of Monocyte chemoattractant protein-1 and vascular Cell adhesion molecule -1 in vascular wall cells. The lactone extract of Ligusticum chuanxiong can reduce the degree of Atherosclerosis in the mammary artery segment of apoE gene deficient mice by inhibiting the expression of CD31, Intercellular adhesion molecule -1, Monocyte chemoattractant protein-1 and core factor kappa B in Atherosclerosis plaque.

ligustrazine derivatives

Researchers have found that the pyrazine ring in the molecule of ligustrazine may be a determining factor in its pharmacodynamics, and replacing this group may affect its pharmacokinetics and adverse reactions. If some drug like and pharmacological groups are connected to the methyl position of ligustrazine, its protective effect on ECV-304 cells damaged by hydrogen peroxide is better[3]. The half effective concentration (EC50) of ligustrazine piperazine derivatives is 218 μ Mol · L-1, much lower than ligustrazine (428 μ Mol · L-1). After introducing some substituted Benzoyl group groups into the piperazine ring, ligustrazine derivatives with more effective anti platelet aggregation were obtained. The researchers synthesized ligustrazine Cinnamic acid derivatives with better antiplatelet aggregation activity. The substituents of ligustrazine are H, OH, nitro, halogen atom, Methoxy group or a free combination of these substituents, which can enhance the biological activity of ligustrazine. In addition, the derivatives of ligustrazine and salvianol also have good myocardial Cytoprotection, and are expected to be Lead compound for the treatment of cardio cerebral Vascular disease.

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RESEARCH PROGRESS OF VITAMIN BIOSYNTHESIS BY YEAST

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Abstract. Yeast is an indispensable part of human life, while vitamins are supplements and nutrients for human life. This review mainly focuses on vitamin biosynthesis of yeast, and summarizes the types and methods of vitamin biosynthesis of yeast at present. These vitamins can be used as excellent products of microbial cell factories. It is of great significance for the product development of yeast biosynthetic vitamin supplement.

Keywords: Saccharomyces cerevisiae, biosynthesis, vitamin

Yeast is an edible, nutrient-rich single-celled microorganism that contains more protein and also contains eight essential amino acids. In addition to proteins, carbohydrates, lipids, yeast can also synthesize a variety of vitamins. Vitamins are micronutrients required by organisms, and humans cannot synthesize vitamins themselves, they can only be taken from food, and very few can be synthesized in the body or produced by gut bacteria. Although people's demand for vitamins is small, but once lack, it will cause a variety of diseases. And then people need to take chemical synthesis of

vitamins to supplement. However, it will also cause a burden on the body if people take in excessive chemical synthesis of vitamin. Therefore, the development of a natural vitamin products is very necessary. At present, microbial cell factories can achieve the biosynthesis of vitamins.

Yeast synthesizes Vitamin C

Under natural conditions, plants can synthesize VC, while yeast can only synthesize the VC analogue D-erythroascorbic acid (D-EAA). Hancock et al added L-galactose to saccharobacteria cereviscerae to collect VC. It can be seen that L-galactose is a factor limiting the synthesis of VC by yeast. In the presence of L-galactose, yeast can use its D-EAA pathway to generate VC. Branduardi et al. use genetic engineering to introduce three key enzymes that can generate VC from D-glucose, which is expected to turn industrial production into reality[1].

Yeast synthesize Vitamin B

Riboflavin is a precursor of flavin adenine dinucleotide (FAD) and flavin mononucleotide (FMN), and a coenzyme involved in biological REDOX reactions and electron transport chains. Overexpression of the engineering enzymes phosphoribosyl pyrophosphate synthetase and phosphoribosyl pyrophosphate aminotransferase, which catalyze the initial steps of purine nucleotide biosynthesis, further promoted riboflavin synthesis in the flavinogenic yeast C. famata. Metabolic engineering methods include overexpression of the SEF1 gene encoding the positive regulator of riboflavin biosynthesis, the IMH3 gene encoding the IMP dehydrogenase, and the homologous genes RIB1 and RIB7 encoding the first enzyme GTP cyclic hydrolase II and the last enzyme riboflavin synthetase in the riboflavin biosynthesis pathway. In AF-4, a genetically stable overproducer of riboflavin obtained by classical selection, overexpression of the above gene resulted in a 4-fold increase in riboflavin production.

Pantothenic acid is an essential vitamin and is widely used in medicines, nutritional supplements, foods and cosmetics. By adjusting the copy number of pathway modules, knockout endogenous bypass genes, balancing NADPH utilization, and regulating the GAL induction system, we successfully constructed a high-yield pantothenic acid strain using glucose to regulate gene expression, and then optimized the fed-batch fermentation to obtain the highest concentration of pantothenic acid produced by saccharomycete so far.

Yeast is a single-celled fungus that can survive aerobic or anaerobic conditions, is a natural starter culture, and has the potential as a probiotic, which is widely used in the food industry. There are four types of folic acid in brewer's yeast: 5-CH3-THF(4460±191μg/100 g), 5-CHO-THF(330±12μg/100 g), 10-CHOFA(45±2μg/100 g), and THF(31±1μg/100 g).

Yeast synthesizes Vitamin D

Natural yeast does not produce 7-DHC. Engineering yeast that produces 7-DHC efficiently can be constructed by systematic metabolic engineering, overexpressing six endogenous genes and one allogenic gene, knocking out ROX1 and GDH1, using Ty1 transposon (ERG1 and DHCR24) to increase gene copy, and using CRISPRi to inhibit the competitive pathway which can product vitamin D3 yield 7.365mg/L. But whether GM products can be accepted by the public remains a big challenge. Yeast can naturally produce ergosterol, without the need for genetic engineering means of production, yeast cells exposed to ultraviolet light can convert ergosterol into vitamin D2, obtain high yield of vitamin D2, the production of vitamin D in saccharomyces cerevisiae species is hopeful in the future to alleviate people's vitamin deficiency.

Yeast synthesizes Vitamin E

Tocotrienol is an important part of vitamin E, and heterobiosynthesis is all intracellular products. Xue et al, by exploring biphasic extraction and fermentation conditions and screening intra-hospital transport proteins, finally achieved the production of 25.57mg/g of tocotrienol by saccharomyces cerevisiae, which is of great significance for yeast fermentation to become a vitamin supplement.

Result and discussion

Yeast can be used as a metabolic engineering tool to build cell factories, through genetic engineering means to make microbial synthesis of vitamins is possible. At present, it has been successfully synthesized in yeast such as VC, riboflavin, pantothenic acid, folic acid, VD and VE, which is of great significance for the future production of fermentation products.

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EXPLORING THE MOLECULAR MECHANISMS OF FUZHENG KANGAI DECOCTION IN TREATING BREAST CANCER USING GEO DATA MINING, NETWORK PHARMACOLOGY AND MOLECULAR DOCKING

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Abstract. In this paper, we used GEO data mining, network pharmacology and Macromolecular docking methods to explore the mechanism of FKD treatment of BC. The active components and their targets in FKD were obtained by Systems pharmacology of traditional Chinese medicine (TCMSP). Using Perl, string, and Cytoscape software to draw the composition target network and protein protein interaction (PPI) network of drugs. By constructing Gene Ontology (GO) and analyzing the Kyoto Encyclopedia of Genes and Genomes (KEGG), the core targets and approaches of FKD against BC were predicted. Finally, use AutoDockTools to verify the binding ability between active ingredients and core targets through Macromolecular docking. Through this study, we found that Quercetin and Luteolin may be potential candidates. AKT1[4], JUN, PPARG[5], and ERBB2 may become potential therapeutic targets. Blood lipid and Atherosclerosis, endocrine resistance, Toll like receptor signal transduction and 1L-17 signal transduction pathway are the main pathways of FKD intervention in BC.

Keywords: GEO data mining; Fuzheng Kangai Decoction(FKD); Network pharmacology; Molecular docking; Breast cancer

Objective

Gene Expression Omnibus (GEO)data mining--based approach unified with molecular docking and network pharmacology was performed to confirm the active ingredients, core targets, and potential molecular mechanism of Fuzheng Kangai Decoction (FKD) against breast cancer (BC).

Materials and methods

Differentially expressed genes (DEGs) related to BC were retrieved from the GEO database. Explore the mechanism of FKD treating BC using network pharmacology and molecular pairing. Gene expression profiles GSE15852 were acquired from the GEO database. Differentially expressed genes (DEGs) were authenticated by R language. The active ingredients and their targets in FKD were obtained using the Traditional Chinese Medicine Systems Pharmacology (TCMSP) [1-2]. Perl, string and Cytoscape software were used to draw the composition target network and protein-protein interaction (PPI) network of the drug. The core targets and pathways of FKD against BC were predicted by constructing Gene Ontology (GO) and Kyoto Encyclopedia of genes and genomes (KEGG) analysis. Lastly, AutoDockTools was used to verify the binding ability between the active ingredient and the core target through molecular docking [3].

Results and discussion

115 active ingredients and 36 corresponding targets were included in the active ingredients target network. Through this study, it was found that quercetin and luteolin may be potential candidates. AKT1, JUN, PPARG and ERBB2 could become potential therapeutic targets. Blood lipid and atherosclerosis, endocrine resistance, Toll-like receptor signalling and 1L-17 signalling pathway are the main pathways for FKD intervention BC. Also, molecular docking corroborated the high affinity between bioactive molecules of FKD and their targets in BC. The above experimental data and molecular docking verification will provide a theoretical reference for further research on the treatment of BC with traditional Chinese medicine(TCM).

Conclusion

In this article, we obtained the differential expression analysis of breast cancer tissue samples from normal people and BC patients through GEO database analysis. Through the network pharmacology method, we acquired two key core components, quercetin and luteolin, as well as four core genes: AKT1, Jun, PPARG and ERBB2. Many studies revealed that these ingredients and genes militate in regulating breast cancer to achieve specific effects. To a certain extent, this article offers a reference for FKD to prevent and treat breast cancer. Potential therapeutic targets with significant efficacy were screened through the TCMSP database and the GSE15852 dataset. These pathways were screened and analyzed. The core target was linked with quercetin and luteolin to get the best binding site and strength. Four core genes have been fully validated in various tumour microenvironments of breast cancer.

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MECHANISM OF M1 /M2 MACROPHAGE REGULATION IN BREAST CANCER MICROENVIRONMENT BY FUZHENG XIAOYAN DECOCTION

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Abstract. In this paper, we investigated the effects of Fuzheng Xiaoyan Decoction on M1 type and M2 type macrophage related factors in Breast Cancer (BC) microenvironment by upregulating miR-146a expression. Inhibition of 4T1 BC cells by Fuzheng Xiaoyan Decoction at different times and concentrations miR-146a overexpression in 4T1 cells was determined as well as the effect of miR-146a overexpression on cell proliferation after transfection on the cell surface was measured, and the expression of M1 and M2 specific proteins IL-10, IL-12, CD86, CD163, TNF-α,IL-1β effects and inflammation and apoptosis related factors Caspase3, caspase9, NF-κB. Effects of raf-6, IRAK-1. The experimental results suggest that the mechanism of action by which Fuzheng Xiaoyan Decoction reverses the transition of tumors from M2 to M1 phase and thereby inhibits BC progression may be through upregulating miR-146a expression and thereby inhibiting BC development.

Keywords: Fuzheng Xiaoyan decoction; Breast cancer; Tumor microenvironment; miR-146a; M1 type macrophages; M2 type macrophages

The incidence of BC is the first neoplasm in women worldwide and shows a trend towards a younger age, and its occurrence is influenced by many factors such as genetics and environment[1]. In recent years, relevant studies of BC have found that microRNAs (miRNA) function as «tumor suppressors « by regulating tumor suppressor genes in the body, and also can function as «tumor activators «by regulating Pro oncogenes in the body, which can regulate relevant signaling pathways in the body and then play a key role in the development and progression of different types of BC[2]. Macrophages are a class of immune cells that widely exist in the systemic blood system and tissues, and are able to secrete a variety of active factors to exert immunoregulatory and immune effector effects. Meanwhile, macrophages, in turn, are important and most numerous inflammatory cells in the tumor microenvironment (TAMs), and after macrophages infiltrate into tumor tissues, they can differentiate into anti-tumor M1 type and pro tumor M2 type under different conditions[3]. Various studies have shown that TAMs in the tumor microenvironment are mainly polarized toward M2 type macrophages and contribute to tumor progression toward malignancy. Therefore, reversing TAMs phenotype is differentiated from Pro tumor M2 phenotype to anti-tumor M1 phenotype; Attenuating the tumor promoting effect of TAMs would be valuable to do further exploration in BC.

Objective

Exploring the effects of Fuzheng Xiaoyan Decoction on M1 type and M2 type macrophage related factors in the BC cell microenvironment by upregulating miR-146a expression provides a scientific basis for investigation of the anti BC mechanism of Fuzheng Xiaoyan decoction.

Materials and methods

CCK-8 experiment was used to determine the

inhibitory effect of Fuzheng Xiaoyan Decoction containing serum with different action time and different concentration on 4T1 BC cells. 4T1 cell miR-146a was over-expressed by cell transfection, and the effect of cell transfection on cell proliferation was measured. ELISA method was used to detect the effects of transfection of miR-146a on M1 and M2 specific proteins of IL10, IL12, CD86, CD163, TNF-α and IL-1β in the supernatant of breast cancer 4 T1 cells and the inflammation and apoptosis related factors of Caspase3, Caspase9, NF-κB, RAF-6 and IRAK-1.

Results and discussion

CCK-8 experiment results showed that Fuzheng Xiaoyan Decoction could effectively inhibit the proliferation of 4T1 cells in a dose-dependent way. The proliferation inhibition of 4T1 cells was more significant in the Fuzheng Xiaoyan Decoction plus over-expressed miR-146a group than that in the simple Chinese medicine group and the simple up-regulation miR-146a group($P<0.01$). The contents of IL-12 and CD86 were significantly increased($P<0.01$), the contents of IL10 and CD163 were significantly decreased($P<0.01$), the expressions of pro-apoptotic factors of Caspase3 and Caspase9 were up-regulated($P<0.01$), and the expressions of RAF-6, IRAK-1, TNF-α, IL-1β, NF-κB were down-regulated in the Fuzheng Xiaoyan Decoction plus over-expressed miR-146a group($P<0.05$).

In summary,the mechanism of Fuzheng Xiaoyan Decoction in reversing the transition of tumor from M2 to M1 phase and in inhibiting the progression of breast cancer may be through up-regulating the expression of miR-146a to inhibit TNF-α, IL-1β, NF-κB, RAF-6 and IRAK-1 in the NF-κB pathway and promote the expression of pro-apoptotic factors of Caspase3 and Caspase9 to regulate the development of BC.

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BASED ON THE THEORY OF «SPLEEN MOVEMENT IN THE MIND», THE CORRELATION BETWEEN CHRONIC CONSTIPATION AND SOMATIZATION SYMPTOM DISORDER AND ANXIETY STATE WAS DISCUSSED

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Abstract. This paper introduces the results of the questionnaire research of the First Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine and Harbin Hospital of Traditional Chinese Medicine on patients with chronic constipation in the past year, and found that somatization symptom disorder and anxiety state are common in chronic patients, and CC is accurately correlated with somatized symptom disorder and anxiety state.

Keywords: spleen movement in the mind,slow-transit constipation, somatization symptoms, Anxiety states, correlation

Hemangioma is formed due to the misshapen, malformed, and verrucous proliferation of vascular tissues, and the vast majority of them are benign tumors. Hemangioma is divided into two kinds: primary and secondary, primary accounts for about 75%, which is formed due to the abnormal proliferation of the blood vessel network in the human embryonic period, and is present at birth; secondary mostly appears in infancy, and the etiology is still unclear. At present, the commonly used treatment methods include laser treatment, surgery, and so on. However, some patients' hemangiomas grow on the face, and both laser and surgical treatments have the risk of leaving scars. Although Chinese medicine has long been talking about hemangioma, there is a lack of systematic

understanding of its etiology, pathogenesis, treatment method, and prescription.

In the past, Chinese medicine practitioners would treat hemangioma according to blood heat and blood stagnation, and the treatment would be to cool blood and activate blood circulation. Recently, some doctors have put forward the new idea of «wind evil enters into the inside to form tumor», which makes us more clinical experience and thinking in the treatment of hemangioma. Many patients were treated from the viewpoint of wind, and under precise identification, the prescription was added with wind-expelling and exopathogens, and a lot of good effects were obtained.

Objective

Provide new ideas for hemangioma treatment, expand hemangioma treatment methods, and inherit traditional medicine without forgetting further innovation.

Materials and methods

Ms. Guo, 31 years old, first diagnosed on June 29, 2023, with multiple hepatic hemangiomas, maximum 0.5mm, easy sweating after healing from a new crown 4 months ago, windy, headache, pain in the temples, heavy rhinorrhea, coughing, palpitation, nausea, fullness under the dorsal area, discomfort in the neck, discomfort in the lower back, lack of energy in the daytime, insomnia, scanty bowel movement, irritability before menstruation, weak pulse with a pale red tongue and thick moss. Previous hypothyroidism.

Results and discussion

Symptoms: Wind evil enters the interior, congestion, and blockage. Treatment: dispelling wind and relieving the symptoms, dredging the meridians and channels, reconciling the Shaoyang, and harmonizing the Ying and Wei. Formula: Chai Hu Gui Zhi Tang. Prescription: 20 grams of Chai Hu, 12 grams of Scutellaria baicalensis, 15 grams of Radix et Rhizoma Ginger, 12 grams of Radix et Rhizoma Ginseng, 10 grams of dried ginger, 30 grams of Jujubes, 10 grams of Radix et Rhizoma Glycyrrhizae, 12 grams of Cinnamomum cassiae, 12 grams of Radix et Rhizoma Paeoniae albae, 15 grams of Rhizoma Polygonati Odorati, 12 grams of Almonds, 30 grams of Rhizoma Polygonati. One week later, the patient returned to the clinic, and the symptoms were all reduced.

Modern medicine believes that hepatic hemangioma is a kind of mass structure composed of a large number of arteriovenous vascular malformations in the liver, and it is the most common primary benign tumor of the liver. It is the most common primary benign tumor of the liver. The incidence rate of hepatic hemangioma in the general population is 0.4%~20%, and the exact mechanism of its development has not yet been clarified, but it is currently believed that hepatic hemangioma is related to congenital abnormalities of hepatic vascular development. According to traditional Chinese medicine, hepatic hemangioma belongs to the category of «accumulation». It is formed due to poor operation of qi and blood, stagnation of blood and phlegm, obstruction of veins and channels, or accumulation of qi and stagnation, resulting in the formation of tortuous and angry blood vessels. Clinically, the method of regulating qi and activating blood is not as effective as it should be. Recently, the innovative theory of «Wind Evil Entering Inside to Form Tumor», in which surface evil enters inside, leading to disharmony between Ying and Wei, congestion and blockage of meridians and channels, and the treatment of this kind of patients with Chai Hu Gui Zhi Tang has achieved good results, which provides a new way of thinking for the treatment of hemangiomas.

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A NEW STRATEGY FOR A CASE OF TYPE 2 DIABETES

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Abstract. Diabetes is a metabolic disease characterized by hyperglycemia. It is a common and frequently occurring disease in clinics. At present, its incidence rate is growing rapidly worldwide, especially in type 2 diabetes. This article introduces and summarizes the new strategy of integrating traditional Chinese and western medicine in the treatment of a patient with diabetes.

Keywords: diabetes, traditional Chinese medicine, western medicine, comprehensive treatment, new strategies

Diabetes is a common and frequently occurring disease in clinics. It is a worldwide public health problem that seriously threatens human health. According to the latest epidemiological data, the prevalence of diabetes in China is 10.9%. In the past decades, the prevalence of diabetes in China has increased sharply, especially type 2 diabetes, which accounts for more than 90% of the total number of cases. The main clinical manifestations of diabetes are polydipsia, polyuria, and emaciation. In traditional Chinese medicine, diabetes belongs to the category of «diabetes». As early as the second century BC, it was discussed in the Huangdi Neijing. Its main pathological changes are located in the lung, stomach, and kidney, which can be divided into «three consumptions», namely, upper consumptions (lung), middle consumptions (stomach), and lower consumptions (kidney). Traditional Chinese medicine treats diabetes mainly through diet, daily life, medicine, external treatment, etc. Western medicine believes that diabetes is a metabolic disease characterized by chronic hyperglycemia caused by multiple causes, and it is caused by a deficiency of insulin secretion and/or utilization. Western medicine mainly treats diabetes through diet, exercise, medicine, blood sugar monitoring, and diabetes education.

Objective

Summarize the new strategy of integrating traditional Chinese and western medicine to treat diabetes, reduce the dose of western medicine, and reduce the side effects of western medicine in order to prevent or treat the complications that may be caused by diabetes.

Materials and methods

A 61-year-old female patient was admitted due to type 2 diabetes. Drink more, eat more, and urinate more for more than 2 months, and the body worsens for 1 week. The patient was diagnosed with type 2 diabetes two months ago because he ate too much oily or spicy food, overworked, and suffered from thirst, excessive drinking, polyuria, and other symptoms. Through physical examination, the fasting blood sugar was 15 mmol/L, and after dinner, the blood sugar was 20 mmol/L, and Metformin was taken from the local hospital to stabilize blood sugar. Due to not paying attention to daily life, my blood sugar increased, and symptoms worsened a week ago. I was admitted to our hospital for treatment through an outpatient clinic. During the course of the disease, there was no fever, no cough, occasional headache, weakness, Neck stiffness, no nausea, vomiting, no night sweats, no edema in both lower limbs, a normal appetite, normal stool, increased urination, accompanied by foam and odor.

Diagnosis and treatment process: Based on the patient's medical history and relevant examinations, traditional Chinese medicine is given. Morning: Ten Flavored Black Ice Pills (15 pills), aimed at regulating stomach heat. Noon: Honghua Qinggan 13 Flavor Pills (15 capsules) aimed at improving liver function. Evening: 15 Zhenbao pills are taken to improve the white pulse and relieve Neck stiffness. Metformin was given when the fasting blood sugar increased, and acarbose tablets were given when the blood glucose increased after meals.

Results and discussion

After two weeks of treatment, the fasting blood sugar of the patient was 6.1 mmo/L, and the blood glucose after meals was 7.5 mmol/L, and the blood glucose value tended to be stable. The patient was discharged after his condition improved. When discharged from the hospital, the patient was instructed to measure according to the diet for diabetes, avoid oily and spicy foods, exercise more in daily life, and monitor blood sugar regularly.

The prominent feature of traditional Chinese medicine in treating diseases is that it is guided by the theory of Yin and Yang and the Five Elements and dialectically analyzes and treats the root and essence of the disease from a holistic perspective. Holistic view: the holistic view in Traditional Chinese medicine includes two aspects. One is the holistic view of man and nature, that is, the unity of Heaven and humanity, Like many people in the south who are empty and wet and many people in the north who are hot. Therefore, in the treatment of diseases, different treatment methods need to be adopted according to location, person, and time. Secondly, regarding the holistic view of the human body, traditional Chinese medicine regards the human body as an organic whole. For example, the

beauty of the heart on the surface and the rise and fall of heart function can be reflected in the color and luster of the face. Dialectic: summarize all the causes into six basic diseases and analyze them from the perspective of causes. Summarize the essence of each disease into hot and cold genders and analyze it from an essential perspective. The district mainly focuses on the five zang organs and six fu organs and comprehensively analyzes the five senses, pulse conditions, essence, and dross. Grasp the etiology, essence, and area of the disease, comprehensively analyze the development stages of the disease, make a comprehensive dialectical diagnosis, and determine treatment principles. Therefore, when treating diabetes, the human body is regarded as a whole. Once any tissue or organ damage occurs, it will affect other Organ systems. According to the etiology, Chinese medicine classifies diabetes into three types: upward elimination type, middle elimination type, and downward elimination type. Shangxiao is usually caused by lung heat and fluid injuries. The common symptoms are excessive thirst, dry mouth and tongue, and frequent urination. It is usually necessary to use drugs to clear heat, moisten the lungs, promote fluid production, and provide cough relief. It is usually caused by excessive stomach heat, which may lead to overeating, weight loss, and dry stools. Patients need to use drugs that clear the stomach, purge fire, nourish yin, and promote fluid production. Xiaxiao is usually caused by kidney deficiency and essence deficiency and is prone to symptoms such as frequent urination, turbidity such as ointment, sweet urine, dry mouth, dizziness, and lower back and leg pain. It is necessary to use drugs that nourish yin and benefit the kidney. The advantage of Western medicine is its quick response and significant effect on controlling blood sugar. Therefore, Western medicine can effectively and quickly control blood sugar, and on this basis, it can be combined with traditional Chinese medicine's syndrome differentiation treatment to reduce adverse reactions to Western medicine and prevent the occurrence of chronic complications.

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STUDY ON RATIO SCREENING AND EXTRACTION TECHNOLOGY OF WUWEI SHENQIN DECOCTION BASED ON PULMONARY FIBROSIS MODEL

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Abstract. Wuwei Shenqin Decoction(WSD) is derived from the famous and classic prescription, Zhimu Fuling Decoction, in Liu Wansu's Huangdi Suwen Xuanming Recipe. The experimental group added and subtracted Zhimu Fuling Decoction, and finally composed of ginseng, scutellaria baicalensis, Schisandra chinensis, Chuanxiong and Platycodon grandiflorum. There is no research content on the compatibility ratio and extraction process of this new formula yet. . In this study, the commonly used model of Pulmonary fibrosis induced by Bleomycin was used to screen the ratio of WSD by detecting Pulmonary fibrosis related indicators (PIIINP, MMP-7, SP-A, SP-D, KL-6, HO-1 and HYP). Secondly, on the basis of comparison between traditional water decoction and ethanol extraction, the heating reflux extraction method was used to design an orthogonal experiment with ethanol concentration, decocting time, liquid to material ratio, and decocting times as the investigation factors. The content of Ginsenoside Rg1, Baicalin, Schisandra chinensis alcohol A, Ferulic acid, platycodon D, the main components of WSD, and the extraction rate were taken as the comprehensive investigation indicators, and the optimal process was screened through the weighted scoring method.

Keywords: Wuwei Shenqin Decoction; Pulmonary fibrosis; matching screening; extraction technology; orthogonal experiment; HPLC

Wuwei Shenqin Decoction; Pulmonary fibrosis; matching screening; extraction technology; orthogonal experiment; HPLC

Objective

To establish a rat model of pulmonary fibrosis induced by bleomycin in order to screen the optimal ratio of Wuwei Shenqin Decoction(WSD), and to explore the optimal extraction process of WSD by High performance liquid chromatography (HPLC) and orthogonal assay.

Materials and methods

A total of 160 male rats were randomly divided into blank, model and 16 administration groups, with 10 rats in each group. The rats in the model

group and the administration group were fasted but not watered before operation. During the operation, 3%pentobarbital sodium(45mg/kg) was injected intraperitoneally, and then the rats were placed on the operating table, the neck hair was removed, and the iodophor was wiped and disinfected. A 1cm mid-neck incision was made by surgical scissors, separated to expose the airway, and a single tracheal injection of bleomycin (5mg/kg body weight) was performed using a 1ml syringe. After that, the rats were erected and gently shaken around. Finally, penicillin and iodophor were used to sterilize and suture to complete the modeling [1,2], and the rats were put back into the cage for normal feeding.The serum levels of PIIINP, MMP-7, SP-A, SP-D, KL-6, HO-1 and HYP levels of lung tissue of pulmonary fibrosis model rats were detected, and the comprehensive score of each group was calculated to select the optimal ratio from 16 combinations. With the contents of ginsenoside Rg1, baicalin, schisandrin A, ferulic acid and platycodon D in WSD and the extraction rate as comprehensive indexes, the L9(34) orthogonal experiment table was designed with the ethanol concentration, liquid-to-material ratio, decocting time and decocting times as factors, and the comprehensive score of each group was calculated to optimize the extraction process of WSD.

Results and Conclusion

There were significant differences in pulmonary fibrosis indexes between model group and blank group ($p<0.01$), the optimal ratio of WSD was: ginseng 9g, scutellaria 15g, schisandra 6g, Chuanxiong 12g, platycodon 9g. The optimal extraction process was as follows: 10 times 90 % ethanol, decocted for 1.5 h, and extracted once consecutively. The rat model of pulmonary fibrosis was successfully replicated by using bleomycin, and WSD can be used in the treatment of pulmonary fibrosis. In addition, the optimum ratio of WSD was selected, and the liquid phase method for the determination of the main components in this formula was established. The optimal extraction process had good reproducibility, stability, precision, sample addition and recovery, and the method was stable and reliable.

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EFFECT OF NAOLUOTAI CAPSULE ON HEMORHEOLOGY OF COLD COAGULATION AND BLOOD STASIS RAT MODEL

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Abstract. To observe the effect of Naoluotai capsule on hemorheology of cold coagulation and blood stasis rat model. The whole blood viscosity, whole blood reduction viscosity, plasma viscosity and red blood cell function of rats were measured by ice water bath and injection of epinephrine. The results showed that all indexes in the model group were higher than those in the blank group, and the medium-dose group had a significant effect on improving blood viscosity. It can be seen that Naoluotai capsule can improve the viscous and coagulated state of blood in blood stasis model rats to a certain extent, and has anticoagulation effect.

Keywords: Naoluotai capsule; cold coagulation blood stasis model of hemorheology ; Blood viscosity; rats

Objective

Naoluotai capsule is composed of Astragalus, Notoginseng, leech and borneol extract, which has the effect of promoting blood circulation, removing blood stasis, and invigorating qi. According to the theory of traditional Chinese medicine, Yang Qi can promote the operation of Qi and blood body fluid, cold stagnation, Yang Qi is damaged, and the loss of qi and blood in the meridian-warm Yang Qi will block coagulation and astringency. In this paper, a model of cold coagulation blood stasis in rats was established by injecting small doses of adrenaline to excite sympathetic nerve and stimulating the rats with ice-water stress to induce liver-qi stagnation and inability to promote blood flow, thus forming blood stasis [1], and the effect of Naoluotai capsule on blood circulation and blood rheology was explored, providing pharmacodynamic test basis for the clinical application of this drug.

Materials and methods

Fifty female and male SD rats were randomly

divided into blank control group, model group and Naoluotai capsule high, middle and low dose group with 10 rats in each group (5 males and 5 females). Except the blank group, the rats in the other groups were continuously bathed in ice water for 14 days, 10 min each time. On the 15th day, the blank group was injected with normal saline, and the other six groups were injected subcutaneously with epinephric hydrochloride injection (0.8mL/kg). After 2h injection, the rats (except the blank group) were continued to be bathed in ice water for 10 min. The same dose of epinephrine hydrochloride was injected again 2 hours after the end of the ice bath. After the last administration, 10% chloral hydrate solution 0.3ml/100g body weight anesthesia was used, and abdominal aorta blood was taken to detect indicators. The whole blood viscosity, whole blood reduction viscosity, plasma viscosity, hematocrit, deformation index, rigidity index, aggregation index and electrophoresis time of rat blood were measured by LB-2A automatic hemorheological analyzer.

Results and Conclusion

Compared with the blank group, all indexes of the model group had an upward trend, and there were significant differences ($p<0.05$); compared with model group, Naoluotai high, medium and low dose groups can reduce the hemorheological detection indexes, and the effect of medium dose group is more prominent, with significant difference ($p>0.05$).

Plasma viscosity, red blood cell aggregation index, red blood cell deformation index and whole blood low cut relative index are the main indexes to evaluate the effect of drugs on promoting blood circulation and removing blood stasis [2], so the above indexes were selected for analysis. It can be seen from the experimental data that Naoluotai capsule plays a positive role in regulating the viscosity, concentration, coagulation and aggregation of blood stasis model, but its mechanism is not yet clear and needs to be further studied.

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EXPLORING THE EFFECT OF PHARBITIDIS SEMEN DECOCTION AND ITS POLYSACCHARIDES ON HYPERLIPIDEMIA IN RATS BASED ON METABONOMICS

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Abstract. Based on metabonomics technology, the effects of Pharbitidis Semen decoction and its polysaccharides on hyperlipidemia rats were studied. SD rats were randomly divided into normal group, model group, fenofibrate group, low, middle and high dose groups of Pharbitidis Semen, low, middle and high dose groups of Pharbitidis Semen polysaccharides. Except for the normal group, the other groups were fed with high-fat diet to replicate the rat model of hyperlipidemia for 8 weeks. Take blood and supernatant. The data were collected by UPLC-Q-TOF-MS/MS and SynaptG2-Si mass spectrometry. KEGG, HMDB, MetaboAnalyst5.0 and other databases were used to screen biomarkers and enrich metabolic pathways. after the intervention of high dose of Petunia seed decoction, 9 metabolic pathways were recalled, and a total of 8 metabolic pathways were recalled after the intervention of low dose Petunia polysaccharides. Pharbitidis Semen decoction and its polysaccharides can alleviate hyperlipidemia by regulating metabolites and metabolic pathways to inhibit free fatty acids, regulate oxidative stress, inhibit inflammation and lipid accumulation in the liver.

Keywords: Pharbitidis semen decoction; Pharbitidis semen polysaccharides; hyperlipidemia; metabonomics; Metabolites; Metabolic pathway

Pharbitidis semen is the dried and mature seed of Pharbitis nil (L.) Choisy or Pharbitis purpurea (L.) Voigt in the convolvulaceae family. Some studies have shown that the effect of Pharbitidis semen on

adipocytes in rats and mice with high-fat diet has a certain effect on hyperlipidemia, but the mechanism is not clear [1]. Many modern animal models of hyperlipidemia have been established to evaluate new drugs and treatments [2-3], the metabolic spectrum is elucidated, and the potential biomarkers of hypertriglyceridemia, combined hyperlipidemia and hypercholesterolemia are described. Based on this, our group used metabonomics technology to explore the effects of ephedra kernel decoction and its polysaccharides on hyperlipidemia rats, in order to further clarify the mechanism of ephedra seed decoction on hyperlipidemia.

Objective

Based on metabonomics technology, the effects of different concentrations of Pharbitidis Semen decoction and its polysaccharides on hyperlipidemia rats were studied.

Materials and methods

Pharbitidis semen was collected from Shandong Province, China in November 2022. In this study, the water decoction and polysaccharides of Pharbitidis semen were separated according to the extraction process of the previous research group. 90 healthy SPF SD rats (10 weeks old, male, 200-240g) were selected and provided by Beijing Weitong Lihua Experimental Animal Technology Co., Ltd., license number is SCXK (Beijing) 2021-0011.

90 SD rats were divided into normal group, model group, fenofibrate group (11.5mg/kg/d), low dose group of Pharbitidis semen decoction (400mg/kg//d), medium dose group of Pharbitidis semen decoction (800mg/kg/d), high dose group of Pharbitidis semen decoction (1600mg/kg/d), low dose of Pharbitidis semen polysaccharides group (300mg/kg/d), medium dose of Pharbitidis semen polysaccharides group (600mg/kg/d) and high dose of Pharbitidis semen polysaccharides group (1200mg/kg/d). Except for the normal group, the mice in other groups were fed with high-fat diet to replicate the rat model of hyperlipidemia for 8 weeks, and the corresponding drugs in other animal groups were given intragastric administration of 2ml at the 5th week for 4 weeks. On the 56th day, anesthetized rats, opened the abdominal cavity, took blood from the rat aorta, and collected blood samples, after incubation at room temperature for 30 minutes, the blood was centrifuged with 3500rmp at room temperature for 15 minutes, and the separated serum samples were stored at -80 °C until analysis.

Results and discussion

The results of principal component analysis showed that the metabolic profiles of the normal group and the model group were significantly separated, and the metabolic contours of the high-dose water decoction group and low-dose polysaccharide group were also significantly separated from the model group. The results showed that there were differences in serum among the four groups. Pathway analysis showed that 9 metabolic pathways were recalled after the intervention of high dose water decoction. They are Nicotinate and nicotinamide metabolism, Glycerophospholipid metabolism, Pyrimidine metabolism, Linoleic acid metabolism, alphaLinolenic acid metabolism, Porphyrin and chlorophyll metabolism, Arachidonic acid metabolism, Tryptophan metabolism and Metabolism of xenobiotics by cytochrome P450, respectively.After the intervention of low dose polysaccharides, 9 metabolic pathways were recalled. It includes Glycerophospholipid metabolism, Pyrimidine metabolism, Linoleic acid metabolism, alpha-Linolenic acid metabolism, Porphyrin and chlorophyll metabolism, Arachidonic acid metabolism, Metabolism of xenobiotics by cytochrome P450, Glycine, serine and threonine metabolism. Among them, the two jointly regulate 7 pathways.

In this paper, studies have found that Pharbitidis semen decoction and its polysaccharides can alleviate hyperlipidemia by regulating metabolites and metabolic pathways to inhibit free fatty acids, regulate oxidative stress, inhibit inflammation and lipid accumulation in the liver. To sum up, this study explored the mechanism of Pharbitidis semen on hyperlipidemia from the perspective of metabonomics, and found some biomarkers, which provided a theoretical basis for the treatment of hyperlipidemia.

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EFFECT OF PHARBITIDIS SEMEN EXTRACT AND ITS POLYSACCHARIDES ON GUT MICROBIOTA IN HYPERLIPIDEMIA RATS

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Abstract. The rats were randomly grouped and hyperlipidemia model was established, after administration, samples were collected for PCR amplification and product electrophoresis. The results showed that relative to the model group the relative abundance of Bacteroideae and Prevotella increased in the Pharbitidis Semen extract and Pharbitidis Semen polysaccharides low dose groups, while the relative abundance of Proteobacteria and Lactobacillaceae decreased. In addition, the Pharbitidis Semen extract group mainly enriched g__Allobaculum, f__Erysipelotrichaceae and p__Proteobacteria. The polysaccharides group mainly enriched s__Bacteroides_barnesiae, p__Proteobacterias and o__Clostridiales. In conclusion, the decoction and its polysaccharides can regulate the abundance of Bacteroideae, Spirillaceae and Lactobacillaceae in gut microbiota of hyperlipidemia rats, and can also regulate the species composition and structure of intestinal flora in hyperlipidemia rats.

Keywords: Pharbitidis Semen extract; Pharbitidis Semen polysaccharides; Hyperlipidemia; gut microbiota

Lipoidemia is a disease with abnormally elevated serum cholesterol, triglyceride or both [1]. Existing studies have shown that hyperlipidemia may be caused by many factors [2]. Petunia is the dry mature seed of Pharbitis nil (L.) Choisy or Pharbitis purpurea (L.) Voigt. The previous studies of our group showed that the decoction and polysaccharides of Pharbitidis Semen could significantly reduce the levels of total triglyceride and total cholesterol in adriamycin nephrotic rats [3]. We speculate that Pharbitidis Semen has a hypolipidemic effect and may be a potential drug for the treatment of hyperlipidemia. In this paper, the establishment of hyperlipidemia model induced by high-fat diet was used to study the effects of Pharbitidis Semen decoction and polysaccharides on intestinal flora in hyperlipidemic rats. to provide an important scientific basis for making full use of Pharbitidis Semen to treat hyperlipidemia.

Objective

To study the effects of Pharbitidis Semen decoction and its polysaccharides on intestinal flora in rats with hyperlipidemia, and to discuss the relationship between hyperlipidemia and intestinal flora.

Materials and methods

Male SD rats were randomly divided into 9 groups, and the corresponding drugs were given intragastric administration of 2ml at the 5th week. After feeding with high-fat diet for 8 weeks, the cecal contents of each rat were collected, frozen rapidly in liquid nitrogen and preserved at 80 °C. according to the manufacturer's instructions, the DNA of each group was extracted using MOBIO PowerSoil ®DNA Separation Kit (MOBIO Laboratories, Carlsbad, CA, USA). The V806 region of bacterial 515SrRNA was sequenced with 4F and 16R primers in the Illumina MiSeq sequencer (300bp paired end reading segment).

Results and discussion

The results of 16SrDNA sequencing showed that after drug intervention, the relative abundance of Bacteroides increased and the relative abundance of Proteus and thick-walled bacteria decreased in the rats in the middle and low dose groups, but there was no callback effect in the high dose group. At the same time, the water decoction and polysaccharides of Pharbitidis Semen could significantly up-regulate the relative abundance of Prevodiaceae and Vibrionaceae, and down-regulate the relative abundance of Lactobacillaceae. In addition, the results of PCA, PcoA, UPGMA cluster analysis and LEfSe analysis showed that there was a significant difference between the normal group and the model group, and there were significant differences in the composition of intestinal flora between the model group and other groups.

In this study, the decoction of Pharbitidis Semen and its polysaccharides can regulate the abundance species composition and structure of the intestinal flora in hyperlipidemia rats, indicating that the interaction between intestinal flora and hyperlipidemia may be a potential mechanism for the prevention and improvement of hyperlipidemia. The

regulation of water decoction and polysaccharides on the composition and structure of intestinal flora may be a new therapeutic method to alleviate the condition of hyperlipidemic rats.

The cecal contents of hyperlipidemic rats were analyzed by 16SrDNA sequencing technology. It was found that high-dose Pharbitidis Semen decoction and low-dose Pharbitidis Semen polysaccharides could change the composition and structure of intestinal flora, increase the relative abundance of beneficial bacteria and reduce the growth of harmful bacteria, so as to achieve the effect of treating hyperlipidemia.

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RESEARCH PROGRESS ON PHARMACOLOGICAL ACTION AND CLINICAL APPLICATION OF ALISMA ORIENTALIS AND ITS COMPOUND IN THE TREATMENT OF TYPE 2 DIABETES

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Abstract. Alisma orientalis is a traditional Chinese medicine in China. It is a dry tuber of Alismaceae, a plant of the Alismataceae family. It has the effect of promoting water and moisture, removing turbidity and regulating fat. It is mainly used for adverse urination, edema and fullness, diarrhea and urinary insufficiency, hot and astringent pain. This article reviews the pharmacological effects and clinical applications of Alisma orientalis and its compound in T2DM.

Keywords: Alisma orientalis, type 2 diabetes, research progress,pharmacology,clinical application

Objective: To review the pharmacological effects and clinical applications of Alisma orientalis and its compound in T2DM.

Materials and methods

Use CNKI and pubmed database to search with «Alisma orientalis», «type 2 diabetes» and other keywords.

Results and discussion

This article summarizes the research reports on Alisma orientalis at home and abroad, and reviews the pharmacological effects and clinical applications of Alisma orientalis and its compound in T2DM.

Alisma orientalis has a hypoglycemic effect.Qin Li et al. showed that the alcohol extract of Alisma orientalis inhibited α- The activity of glucosidase can promote the absorption of glucose by the human body, but it does not promote fat formation[1]. It is speculated that the hypoglycemic mechanism of Alisma orientalis is to promote the body's uptake of glucose without increasing fat generation, thereby avoiding side effects [2]. The water extract of Rhizoma Alismatis can reduce the blood sugar of diabetes mice, it can also inhibit the increase of creatinine, triglyceride and glutamic Transaminase in diabetes mice[3]. The mechanism of action may be through increasing PPAR γ Expressed in adipocytes, increases insulin sensitivity, improves IR, and reduces glucose concentration [4].Alisma orientalis has the effect of regulating blood lipids. Some of the lipid-lowering effects of Alisma orientalis are related to a variety of Active ingredient, such as water-soluble ingredients, polysaccharides, etc., and may also play a role by regulating the expression of related genes or intervening in lipid anabolism [5]. The decoction of Alisma orientalis can significantly reduce the levels of total cholesterol (TC) and low density protein cholesterol (LDL-C) in the serum of hyperlipidemic rats, indicating that the water and alcohol extracts of Alisma orientalis have the effect of reducing blood lipids [6,7,8].

Alisma orientalis compound can treat type 2 diabetes.The experience formula Citi Zeren (American ginseng, Alisma orientalis, Coix seed) independently developed by Ge Pengling's team has good therapeutic effects on T2DM patients with spleen deficiency and dampness excess type [9]. Ge Pengling et al. demonstrated through experiments that Citi Zeren can significantly reduce

serum TG and TC levels in IR rats, proving that Citi Zeren can improve lipid metabolism disorders in T2DM IR patients [10]. Using IR rat model, observe the effect of Citizeren on insulin sensitivity index of rats. The experiment proves that Citizeren can reduce Glucose test#Fasting blood sugar, improve insulin sensitivity and antioxidant, and can reduce the effect of oxidative stress products on islets of langerhans in IR state β Cell damage, thereby improving IR [11]. Citi Zeren can also improve vascular tension in IR rats. At the same time, Citi Zeren can increase the expression level of insulin receptor (INSR) mRNA in the skeletal muscle tissue of IR rats to improve IR [12]. From a molecular perspective, Citizeren may activate Ser473 and Thr308 phosphate sites of Protein kinase B (AKT) on the PI3K/AKT signaling pathway by regulating the expression of calcium sensitive receptor (CaSR) in pancreatic tissue, and improve AKT activity, thus achieving the effect of anti T2DM IR [13].

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RESEARCH SCHEME OF ACUPUNCTURE AND MOXIBUSTION FOR DYSMENORRHEA CAUSED BY ENDOMETRIOSIS

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Abstract. Endometriosis (EMs) is a disease in which the base of endometrium grows into the myometrium and spreads throughout the uterine muscle wall and likely to occur in pelvic tissues such as the posterior wall of the uterus, ovaries, and cervix in women of reproductive age.According to epidemiological studies, approximately 45% to 90% of women worldwide suffer from this disease.At present, western medicine mostly treats primary dysmenorrhea with Nonsteroidal anti-inflammatory drug, contraceptives and other drugs.It has certain therapeutic effects, but can cause side effects such as nausea, headache, and drowsiness, with an ineffective rate of 20% to 30%.Research shows that acupuncture and moxibustion treatment of dysmenorrhea has obvious effects, small side effects and other advantages.Acupuncture can alleviate symptoms of dysmenorrhea and based on meridian differentiation.Not only can it determine the meridians and organs to which the disease belongs, stimulate relevant acupoints, and cooperate with acupuncture techniques, but also achieve the effects of unblocking meridians, harmonizing qi, blood, yin and yang, supporting the right and dispelling evil, and thereby alleviating symptoms of dysmenorrhea.Moxibustion refers to the warm stimulation generated by the burning of mugwort leaves or other flammable drugs, as well as the effects and acupoint application of the drugs.In order to achieve the goal of unblocking collaterals and relieving pain, warming meridians and dispersing cold, it has a good therapeutic effect on dysmenorrhea of cold coagulation stasis type.

Keywords: Endometriosis, Acupuncture, Moxibustion,Treatment

Objective

During postpartum or menstrual periods, if one eats cold and generates cold, or gets cold in the rain, they may feel cold pathogenic factors, which can lead to the stagnation of Chong and Ren. Cold coagulates blood stasis, causing Chong and Ren to stagnate, resulting in the stagnation of Qi and blood in the cellular channels. «If not, pain» can occur, resulting in cold coagulation and stasis type dysmenorrhea.Acupuncture therapy uses techniques and acupoint combinations to unblock the meridians, while moxibustion therapy stimulates warming and unblocking the meridians with warm heat.Traditional Chinese medicine believes that the pathology of dysmenorrhea can be summarized as «pain due to obstruction» and «pain due to lack of honor», and different causes and mechanisms of dysmenorrhea are caused by different organisms. The principle of treating dysmenorrhea is to regulate the flow of qi and blood, and then make specific treatment based on different syndromes.

Materials and methods

The Ren meridian governs Qi, while the Governor meridian governs Shen. The overall regulation is based on the Ren and Governor meridians, including the Four Shencong, Zhongwan, Bilateral Tianshu, Qihai, Guanyuan, and Bilateral Qichong, which regulate the «divine mechanism» and «Qi standing» and have a comprehensive regulatory effect on the body's nervous, endocrine, and immune systems.Primary dysmenorrhea is the dominant disease in acupuncture and moxibustion treatment. Acupuncture can increase the pain threshold of humans or animals. The syndrome differentiation and classification of primary dysmenorrhea are mainly based on empirical evidence, with Qi stagnation and blood stasis and cold coagulation and blood stasis being the main types of empirical evidence.

Results and discussion

Although acupuncture and moxibustion has a good effect on dysmenorrhea of cold coagulation and blood stasis type, there are still many problems waiting to be improved in the research. For example, in clinical research, only the subjective efficacy evaluation of patients has been paid attention to, and there are few studies on objective indicators, and the sample size is relatively small; Or acupuncture and moxibustion and various comprehensive therapies, the control group was relatively non-standard, and there were many Confounding in the efficacy, resulting in poor objectivity and repeatability of the study; Or the mechanism of acupuncture and moxibustion treatment of dysmenorrhea of cold blood stasis type is relatively less.

In future research, attention should be paid to carrying out randomized multi center large sample research, increasing the detection of relevant objective indicators, standardizing the setting of the control group, optimizing the treatment plan, and reducing the Confounding of the efficacy

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EFFECT OF ELECTROACUPUNCTURE PRECONDITIONING ON ENDOPLASMIC RETICULUM STRESS AND APOPTOSIS IN MYOCARDIAL ISCHEMIA-REPERFUSION INJURY IN RATS

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Abstract. In this paper, we constructed an isolated myocardial ischemia/reperfusion model, used the traditional Chinese acupuncture therapy Yuyuan matching point method for pre-acupuncture intervention, and performed tests on myocardial enzymes, endoplasmic reticulum stress and apoptosis-related protein expression. It was found that electroacupuncture pretreatment could improve myocardial ischemia/reperfusion injury, and its mechanism might be related to the inhibition of excessive endoplasmic reticulum stress and its mediated apoptosis.

Keywords: Electroacupuncture preconditioning, endoplasmic reticulum stress, apoptosis, myocardial ischaemia-reperfusion

Coronary heart disease is one of the major disabling and fatal diseases of cardiovascular diseases, and its incidence is increasing year by year, which seriously affects the quality of life of patients. Myocardial ischemia/reperfusion (I/R) can restore myocardial oxygen and nutrient supply. However, Numerous studies show that recovery of blood perfusion after acute ischemia causes reperfusion injury to the heart. Cardiac I/R can alter the function of the endoplasmic reticulum, leading to the accumulation of unfolded/misfolded proteins. The resulting endoplasmic reticulum stress then induces the activation of signal transduction pathways, which in turn contribute to the development of I/R injury.

The method of «matching points» is to match the original points of the internal organs of this meridian with their back yu points, which has a unique effect in treating diseases of the internal organs. As the dorsal yu point of the heart and the original point of the heart meridian, «Xin Yu» and «Shen Men» have the function of responding to and treating heart-related diseases.

Objective

This paper aim to study the effects of electroacupuncture preconditioning on endoplasmic reticulum stress and expression of apoptosis-related proteins in myocardial tissue of myocardial ischaemia-reperfusion rats.

Materials and methods

Thirty-six male SD rats, were randomly divided into the following three groups, i.e. control group (Con group), model group (I/R group) and electroacupuncture preconditioning group (EA group). Then the myocardial ischemia/reperfusion rat model was prepared using an isolated perfusion system, rats in the Con group were only equilibrium perfused for 3 h, rats in the I/R group and EA group were equilibrium perfused for 20 min followed by ischemia for 40 min and then reperfused for 2 h. The electroacupuncture pretreatment group underwent electroacupuncture treatment for 3 weeks before modeling. Myocardial tissues were taken to test the content of cardiac myosin; TUNEL method was used to evaluate cardiomyocyte apoptosis; Hematoxylin-Eosin (HE) staining was used to observe the pathological changes in cardiomyocytes of rats in each group; and the expression of endoplasmic reticulum stress and apoptosis-related proteins GRP78, CHOP, Bax, and Bcl-2 was detected by Western blotting.

Results and discussion

The content of CK, CK-MB and LDH in the model group was higher than that in the control group, and the difference was statistically significant

(P<0.05); the content of CK, CK-MB and LDH in the electroacupuncture pretreatment group was lower than that in the model group, and the difference was statistically significant (P<0.05); Results of the ratio of TUNEL-positive cells: very few TUNEL-positive cells were seen in the Con group. Compared with Con group, the ratio of TUNEL-positive cells in IR group was significantly higher (P<0.05); compared with IR group, the ratio of TUNEL-positive cells in electroacupuncture group was significantly lower (P<0.05). the results of HE staining showed that myocardial fibres of the model group were loosely and irregularly arranged, and myofibrils were mostly fractured, denatured and necrotic. Myocardial tissue structure was basically intact in the electroacupuncture pretreatment group, with mild intercellular oedema, mild widening of myofibre gap, and reduction of necrotic foci; Western blotting showed that the endoplasmic reticulum stress and apoptosis-related proteins GRP78, CHOP, and Bax levels were increased in the I/R group compared with the Con group (P<0.05), and the Bcl-2 level was decreased in the electroacupuncture group (P<0.05); the endoplasmic reticulum stress and apoptosis-related proteins GRP78, CHOP, and Bax levels were increased in the electroacupuncture group compared with the I/R group (P<0.05); the levels of GRP78, CHOP, and Bax in the electroacupuncture group were increased, CHOP, and Bax levels were reduced (P<0.05) and Bcl-2 levels were increased (P<0.05).

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ACPUNCTURE COMBINED WITH TRADITIONAL CHINESE MEDICINE FOR POST-STROKE DYSPHAGIA : A SYSTEMATIC REVIEW AND META-ANALYSIS

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Abstract. This systematic evaluation carried out file retrieval, quality assessment and statistical analysis in strict accordance with Prisma statement, and conducted a meta analysis on the swallowing function of dysphagia after stroke and the incidence of aspiration pneumonia after acupuncture and medicine treatment. On the basis of existing evidence, it is proven that the combination of acupuncture and medicine is significantly superior to the control group in terms of Kubota water swallowing test, SSA scale score, and quality of life score. The incidence of aspiration pneumonia in the test group was significantly lower than that in the control group.

Keywords:stroke, deglutition disorders,acupuncture,decoction,Meta analysis

Dysphagia is one of the more common and serious complications after stroke. Due to the difference in the location and severity of brain injury, 20-80% of people have dysphagia after stroke. In addition, dysphagia after stroke is a high-risk factor of acute Aspiration pneumonia, malnutrition and even death [1]. Maeshima[2] have shown that early detection and management of dysphagia after stroke can reduce the incidence of subsequent complications and help shorten hospital stay. At present, rehabilitation techniques, neuromuscular electrical stimulation, repetitive transcranial magnetic stimulation and biofeedback are commonly used in clinical relief and treatment abroad [3]. At present, the combination of acupuncture and medicine is widely used to treat dysphagia after stroke, but the evidence of evidence-based medicine is not perfect, so this study focuses on the systematic evaluation and analysis of secondary lung infection after the recovery of swallowing function.

Objective

To vertify the efficacy of acupuncture combined with traditional Chinese medicine in the treatment of dysphagia after stroke and the incidence of secondary aspiration pneumonia based on evidence-based method.

Materials and methods

On the Base of the principle of Cochorane system evaluation, a systematic review of the randomized controlled trials of acupuncture for the treatment of dysphagia after stroke was conducted. Then choosing the proper trails according to

inclusion standard and the extraction of the research data, the data analysis was finally carried out through RevMan and Stata15.0 software.

Results and discussion

36 related documents were included this time in total, including of a total of 3463 patients, of which 1732 and 1731 were in the experimental group and the control group respectively. Meta analysis was carried out on the scores of three dysphgia outcomes and the results of Meta-analysis showed that MD=-0.95, 95% CI(-1.17~-0.73); MD=5.29, 95% CI(6.85~3.73); MD=1.85, 95% CI(1.09~2.61) respectively.The life quality score result showed MD=9.86, 95% CI(5.24~14.49), p<0.01.

At this stage, it is mainly believed that swallowing activity is controlled by nerve fibers in three regions, namely, afferent and efferent conduction system, brainstem swallowing center, and senior cortical center. The three regions respectively regulate sensory input and carrier, swallowing reflex activation, and spontaneous swallowing action regulation [4]. Any swallowing action can only be considered complete if it is completely connected by the above three parts, and any partial functional loss will lead to Dysphagia. The right hemisphere cortex is associated with pharyngeal dysfunction, aspiration, and a higher frequency of dysphagia, while the left hemisphere is more closely related to oral dysfunction and mild dysphagia [5-6]. In the future, we will continue to focus on high-quality RCT articles to expand and include them for meta analysis, and verify and analyze the effectiveness of acupuncture and medicine in treating Dysphagia after stroke and reducing the incidence rate of Aspiration pneumonia from different perspectives. It is also expected that the large sample, multi center clinical controlled observation with reasonable and rigorous test methods will be published on the retrieval platform for future Evidence-based medicine to obtain test data.

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THUNDER-FIRE MOXIBUSTION WAS USED TO TREAT LOWER EXTREMITY ARTERIOSCLEROSIS OBLITERANS

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Abstract. Traditional Chinese medicine is used to treat arteriosclerosis obliterans of lower limbs, such as Chinese medicine, fumigation and acupuncture. Thunder fire moxibustion is a kind of moxibustion method produced on the basis of thunder fire magic needle through innovative drug compatibility and moxibustion method. This article introduces the effect and method of thunder-fire moxibustion in treating arteriosclerosis obliterans of lower extremity, and provides reference for clinical application.

Keywords: Thunder-fire moxibustion,arteriosclerosis obliterans of lower extremities

Arteriosclerosis Obliterans of lower extremities (ASO) is the manifestation of systemic atherosclerotic changes in local peripheral blood vessels. The main symptoms of patients are cold limbs, chills, heaviness, numbness, pain, intermittent claudication and rest pain, which is one of the high incidence of peripheral vascular diseases [1]. Studies have shown that the prevalence of

ASO in the elderly in China is as high as 15%-20% [2]. At present, there are various methods for the treatment of inferior arterial occlusive disease. ASO is a chronic progressive disease, which is not cured for a long time. Western medicine often uses antispasms, coagulation, anticoagulation, fibrinolysis and thrombolysis, surgical intervention and interventional therapy. Interventional therapy has a significant effect on patients with acute ischemia, which has a good short-term effect, but may cause in-stent restenosis, resulting in poor long-term effect. The common clinical treatment methods of TCM for ASO include traditional Chinese medicine, fumigation and washing, acupuncture and moxibustion, etc..

Objective

The purpose of this paper is to promote thunder-fire moxibustion as a routine method for the treatment of ASO. The theoretical basis for thunder-fire moxibustion in the treatment of ASO is as follows.

Materials and methods

Thun-fire moxibustion is a therapeutic method derived from thun-fire spirit acupuncture. It has the functions of activating blood circulation and removing blood stasis, strengthening Yang qi, warming zangfu organs, promoting qi and pain relief, dispelling cold and dehumidification, promoting the harmony of Zangfu organs and promoting the circulation and circulation, with good curative effect [3].

Thunder fire moxibustion is carried out by means of suspension moxibustion, during which the temperature generated after burning is used to stimulate the acupoints due to the local temperature increase. The main cause of lower extremity arteriosclerosis obliterans is the increase of blood viscosity and blood stasis due to inflammatory lesions of vascular endothelium. The interaction of traditional Chinese medicine can warm and dissipate cold, promote blood circulation and relieve pain. At the same time, modern pharmacology shows that drugs cooperate with each other to relieve ulcer pain and anti-inflammation, inhibit platelet aggregation, improve local blood circulation, and improve the symptoms of the disease.

Results and discussion

With the change of people's lifestyle, the number of patients with ASO is increasing. Most patients are accompanied by severe complications, with high amputation rate and high mortality [4]. Thunder-fire moxibustion has good effect on symptom relief and cure in patients with lower extremity arteriosclerosis obliterans of cold coagulation and blood stasis type. The therapeutic effect of thunder-fire moxibustion on patients with other syndrome types of primary dysmenorrhea can be used as a future research direction. In addition, the mechanism of thunder-fire moxibustion in the treatment of lower extremity arteriosclerosis obliterans and the optimal acupoint selection based on syndrome differentiation are not very clear and need more in-depth research.

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STUDY ON PHARMACY AND TOXICOLOGY OF SHENGJIAO PILLS

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Abstract. Acne as a common chronic inflammatory skin disease, countless teenagers and adults are affected by it, so there is an urgent need to find a good acne treatment, less toxic side effects, not easy to relapse, easy to take medicine treatment. Shengjiao pill is often used to treat acne and rosacea caused by excessive blood heat toxicity. It can cool blood and dissipate wind, clear heat and detoxify, and has good effect in the treatment process. At present, there is no clear preparation process, scientific and reasonable quality evaluation criteria and safety evaluation of Shengjiao pills. Therefore, this paper establishes the preparation process of Shengjiao pills, establishes the quality standard of Shengjiao pills, and provides safety basis for clinical use of Shengjiao pills through toxicological studies.

Keywords: Hospital preparation;Shengjiao Pill; Preparation technology; Quality standard; Toxicology

With the improvement of living standards, people pay more and more attention to skin problems while paying attention to health. Studies have shown that acne is a common chronic inflammatory skin disease, among which, the prevalence of acne in men is as high as 94.4%, 92% in women, of which 14% suffer from moderate to severe acne, which can be called one of the most prevalent diseases in the world.

Shengjiao pill, as the key research project of Heilongjiang University of Chinese Medicine, has the characteristics of good acne treatment effect, little toxic side effects, easy to relapse and easy to take. Its clinical application has been 30 years, and it is often used to treat acne and rosacea caused by excessive blood heat toxicity. Many years of clinical practice has proved that this prescription is effective in treating acne.

Objective

In this paper, preparation technology, quality standard and toxicology were studied to provide reference for the clinical application of Shengjiao pill.

Materials and methods

1.Study on the preparation process:The comminution process of Shengjiao pills was investigated by using the degree of Comminution and the yield of powder as the indexes, and the sensory evaluation was used as the evaluation index by using the orthogonal design method, the optimum technological parameters were selected according to the amount of refining honey, the number of comminuted honey and the degree of refining honey.

2. Study of quality standards:According to the optimum technology of Shengjiao pills, three batches of chinese-style magnifying products of Shengjiao pills were prepared, and according to the requirements of Chinese Pharmacopoeia (2022 edition) , the appearance character, moisture, weight difference, heavy metal content, microbial limit and extract content were observed, and the specificity and durability of the method were investigated The quality standard of Shengjiao pills was established based on the investigation of the preparation methods and methodological studies, and the content of isoferulic acid was determined by High-performance liquid chromatography method in three batches of pilot-scale samples.

3. Toxicological studies:The acute toxicity of shengjiao pill was studied by intragastric administration of 0.5 g/mL and 0.4 mL/10 g body weight of Shengjiao pill three times a day for one day, at the same time, according to the highest concentration (0.5 g/mL) , the volume of administration (1 mL/100 g body weight) and the frequency of daily administration (2 times/Day) , Shengjiao pill was given to the rats, the long-term toxicity test was carried out with 2.5,5,10 g/kg/d (about 14.58,29.17,58.34 times of the clinical dosage) given by Gavage twice a day for 7 days a week for 13 weeks.

Results and discussion

1. Study on the preparation technology of Shengjiao pills:The Water Buffalo Horn in Shengjiao pill is mixed with Rehmannia glutinosa and radix scrophulariae according to the proportion of prescription, then the other medicinal materials are crushed separately, and the number of the crushed items is 100 mesh, then the powder is mixed according to the proportion of prescription, every 100g of powder plus 130g of honey, made into a big honey pill, dry, packaging, you can.

2. The quality standard of Shengjiao pills:The microscopic identification of buffalo horn, safflower and glycyrrhiza uralensis Fisch in Shengjiao Pill was carried out, and the TLC identification methods of NOTOPTERYGIUM incisum, Angelica dahurica and Ligusticum chuanxiong were determined and included in the quality standard draft The properties, water content, weight difference and microbial limit of three batches of samples were investigated, and the results were in accordance with the relevant regulations of pharmacopoeia pills, the content of

isoferulic acid in shengjiao pills should not be less than 0.0489 mg/1g and higher than 0.0907 mg/1g, the content of alcohol-soluble extract in Shengjiao pills should not be less than 45.33% . The quality standard of Shengjiao pills was established.

3. Toxicology study of Shengjiao pills:When Shengjiao Pill was given to mice by Gavage with 60G/kg (350 times of the dose of adult clinical dosage) , the symptoms and body weight of mice in the treated group showed no obvious trend change compared with those in the control group, at the dose of 10 g/kg/d (about 58.34 times of the clinical dose) , the rats in each group showed normal activity, active behavior and smooth hair, there was no difference and abnormal change in the mean food intake, mean body weight, hematology, blood biochemical indexes and urine routine indexes between the three groups and the control group. At the end of Drug Administration and recovery period, there were no abnormal changes in all organs' coefficients, no pathological changes of dose-dependent toxicity.

This experiment confirmed that the preparation process of Shengjiao pill is stable and feasible, and is suitable for industrial production. The established quality standard system is comprehensive to ensure the quality control of Shengjiao pills; The stability is good, which is helpful to the formulation of the validity period of Shengjiao pills; Toxicology experiments did not find clear toxic target organs and toxic reactions, which confirmed the safety of Shengjiao pills, and provided a reference for the formulation of clinical trial dose and observation indexes of Shengjiao pills.

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STUDY ON PHARMACY AND TOXICOLOGY OF TUOYU POWDER

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Abstract. Tuoyu Powder is an experienced prescription of famous and experienced TCM doctors in the First Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine. This prescription is composed of 14 Chinese herbs: Trichosanthin, Phellodendron, white, TURmeric, Gardenia fructus, Rhizoma officinalis, Tangerine peel, stir-fried Atractylodes rhizoma, Rhubarb, Angelica Dahurica, Borneol, Araceae, Zhangdan (stir-fried), Licorice. Clinically, it is mainly used for various sores, ulcers, carbuncles, furuncles and other diseases caused by heat toxicity[1]. Because of its low quality standards, the quality and clinical effect of its products were affected, therefore, this project carried out a preliminary pharmaceutical and toxicological study.

Keywords: Tuoyu powder; Preparation process; Quality standards;Toxicology

Objective

There are few modern pharmaceutical and toxicological studies on Tuoyu powder, resulting in the current low quality standards, affecting the clinical efficacy and safety. Therefore, the preparation process, quality standard and toxicology of Tuoyu powder were studied in this project, in order to provide reference for the quality standard, clinical medication and safety of Tuoyu powder.

Materials and methods

1. Preparation process

In order to optimize the preparation technology of Tuoyu powder, two aspects of crushing method and crushing mesh number were investigated.

2. Quality standards

According to item 0115 of Chinese Pharmacopoeia (2020 edition), Trichosanthin in Tuoyu powder was identified by microscopic identification. Borneol was identified by physical and chemical methods. Rhubarb, Guanghuangbai, turmeric, Gardenia jasminoides, Angelica Dahurica, gluten-fried Atractylodes rhizoma, Rhizoma officinalis, Baihe and Licorice were identified by thin layer chromatography. The inspection of

powder includes character, appearance uniformity, particle size, moisture, dry weight loss, loading difference, microbial limit, etc. The content of four total anthraquinones in rhubarb, including aloe-emodin, emodin, chrysophanol and emodin methyl ether, was determined by one-measure and multiple-evaluation method. Flame atomic spectrophotometry was used to determine the limit of Zhangdan in Tuoyu powder. The above methods were used to draw up the quality standard of Tuoyu powder.

3. Toxicological studies

In the acute toxicity experiment, the maximum concentration of Tuoyu powder (5.9175g/kg) (about 82.87 times of the clinical dose in adults) was applied to the skin of rats. No toxic reaction and death were observed within 14 days. The rabbits with skin irritation were treated with contact Tuoyu powder (0.789g/ animal) for 7 consecutive days, and the skin changes were observed. Skin sensitization test was used to evaluate the degree of skin sensitization by observing the degree of skin edema and erythema at 1h and 24h after removal of sensitization and 1, 24, 48 and 72h after removal of challenge. The long-term toxicity test was conducted to evaluate the long-term safety of Tuoyu SAN by observing the toxicity of Tuoyu powder on the back of rats during the administration period and the recovery period.

Results and discussion

1. Preparation process

The dried medicinal materials in Tuoyu powder decoction were mixed according to the prescribed proportion, crushed, screened through 100 mesh, and sealed in medicinal composite membrane packaging bag.

2. Quality standards

The microscopic identification of Trichopollen and the physicochemical identification of Borneol were completed. The TLC identification method of rhubarb, Phellodendri guanghuangbai, Turmeric, Angelica dahurica and Gardenia jasminoides was completed, and the results were clear and negative without interference. According to the 2020 edition of Chinese Pharmacopoeia under the category of powder; The content range of total anthraquinone in rhubarb was 0.0588~0.1092mg/g. The specificity, precision, reproducibility, stability and sample recovery test met the requirements of content determination methodology. At least 32.98% of the extract was determined. The Pb content of Zhangdan did not exceed 10.776mg/g.

3. Toxicological studies

(1) Acute toxicity test: no rats died and no abnormal symptoms occurred after 4 hours of administration. None of the rats showed any adverse reactions within 3 days of administration. From the day of administration to the end of the recovery period, the average body weight of female and male rats in the administration group was not abnormal compared with the control group. (2) Skin irritation test: Tuoyu powder was applied to the home free skin for 7 consecutive days. During the first to third days of application, it had a slight irritation effect on the damaged skin, but no irritation on the intact skin. (3) Skin allergy test: There was no serious systemic allergic reaction such as erythema, edema, asthma, standing instability or shock in the test drug group and the blank group, while obvious erythema and edema were observed in the positive drug group, with an average reaction value of 2.5 and 3.5, respectively. The sensitization rate was 100%. (4) Long-term toxicity test: the average food intake, average body weight, blood test, blood biochemical test, urine and organs of the rats in each dose group of Tuoyu powder during the administration and recovery period were slightly different from those of the control group at the same period, but there were no regular and trend changes, and there was no dose-response relationship. It was preliminary determined that the difference had no toxicological significance.

Conclusion

In this experiment, the preparation process of Tuoyu powder was determined, the quality standard was established, the stability was good, and the finished powder conformed to the provisions of pharmacopoeia. Through toxicological tests, it was confirmed that Tuoyu powder had no toxic side effects, irritation, allergy and other adverse reactions.

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STUDY ON THE MEDICATION RULE OF TRADITIONAL CHINESE MEDICINE FOR GRAVES' DISEASE BASED ON DATA MINING

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Abstract.Using modern computer data mining technology, based on the China National Journals Full-text Database (CNKI), collect literature related to TCM treatment of Graves' disease from the establishment of the database to December 2022. Excavating core prescriptions and other aspects to understand the clinical thinking and medication rules of contemporary TCM scholars in the treatment of Graves' disease, and presenting them in a visualized way may be more conducive to the inheritance and development of TCM treatment of this disease.

Keywords: Graves' disease, Chinese medicine, Medication rules, Data mining, Traditional Chinese Medicine Inheritance Platform

Graves' disease is an autoimmune disease of the thyroid gland, and the treatment of modern medicine mainly consists of drugs and surgery. Although antithyroid drug treatment is easier to be accepted by patients, because of the need for long-term medication and common antithyroid drugs have more adverse reactions, more patients often give up Western medicine treatment at this time and seek Chinese medicine treatment. In Practical TCM Internal Medicine, it is believed that the basic pathogenesis of the disease is that Qi, phlegm, and stasis stagnate in front of the neck. Treatment is mainly based on regulating Qi and resolving phlegm, quickening the blood and removing stasis, eliminating gall and dispersing knot. At the same time depending on the specific situation of the patient, taking into account both deficiency and excess[1].

Objective

Based on CNKI, the traditional Chinese medicine inheritance assistant platform (V2.5) , SPSS Modeler 18.0 and SPSS 26. 0 to explore the rule of clinical administration of traditional Chinese medicine in treating Graves' disease.

Materials and methods

We searched the CNKI database for the literatures published until December 2022. The subjects were searched (Graves' disease OR GD) AND (Chinese medicine OR traditional Chinese medicine OR prescription) . The Chinese medicine prescriptions that meet the criteria of inclusive discharge were recorded, and the Chinese medicine prescription database was constructed through the Chinese medicine inheritance auxiliary platform (V2.5) , SPSS Modeler 18.0 and SPSS 26.0 were used to analyze medication frequency, four Qi, five tastes and channel tropism, and to explore potential drug pairs and core prescriptions.

Results and discussion

Graves' disease has the characteristics of long course and easy relapse. The unique advantages of traditional Chinese medicine in relieving clinical symptoms, reducing antibody titers, and safety have attracted the attention of more experts and scholars.

80 traditional Chinese medicine prescriptions were included, with a total of 123 traditional Chinese medicines. Cold nature, bitter taste, enter liver meridian most. Mainly bitter and cold medicine, indicating that the disease is hot. The liver meridian is the main meridian of drugs, because the thyroid gland is closely related to the circulation of the liver meridian in terms of physiology. The top five traditional Chinese medicines are Prunella vulgaris (Frequency: 57), Radix scrophulariae (Frequency: 38), Fritillaria thunbergii (Frequency: 35), Oyster (Frequency: 30), and Rehmannia glutinosa (Frequency: 30). Mainly used to regulate Qi and relieve depression, clear away heat and resolve phlegm, and quicken the blood and dissipate stagnation, which is consistent with the pathogenesis of the disease in which Qi, phlegm, and blood stasis intertwine.Potential drug pairs were Prunella vulgaris-Radix scrophulariae, Prunella vulgaris-Fritillaria thunbergii, Prunella vulgaris-Radix scrophulariae-Fritillaria thunbergii, Prunella vulgaris-Oyster-Radix scrophulariae and so on. Prunella vulgaris can not only alleviate the clinical symptoms of hyperthyroidism, but also has unique advantages in reducing autoimmune antibody titers and alleviating goiter[2]. And excavated and summarized 4 core prescriptions for the treatment of Graves' disease: C1: Cortex Moutan, Gardenia, Bupleurum, Paeoniae Alba, Angelica, Licorice, Pinellia; C2: Rehmannia glutinosa, Scutellaria baicalensis, Ophiopogon japonicus, Forsythia; C3: Prunella vulgaris , Radix scrophulariae, Oyster, Fritillaria thunbergii, Salvia, Cyperus; C4: Astragalus, Curcuma. The C1 prescription is based on Danzhi Xiaoyao Powder, which is based on addition and subtraction, because the condition

often changes during the clinical trial[3]. C2, C3 and C4 prescriptions are compatible to clear heat and nourish yin, promote Qi and blood circulation, and eliminate gall and stagnation.In summary, the pathogenesis of Graves' disease is Qi and blood, and the phlegm is knotted in front of the neck. The general principle of clinical treatment is regulating Qi and resolving phlegm, quickening the blood and removing stasis, eliminating gall and dispersing knot. By using modern data analysis technique, we can get the medication rule and the core prescription of the clinical treatment of Graves' disease, and provide the basis for guiding the clinical research and development of new prescription.

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BASED ON DATA MINING AND NETWORK PHARMACOLOGY TO EXPLORE THE MOLECULAR BIOLOGICAL MECHANISM OF TRADITIONAL CHINESE MEDICINE PATENT COMPOUND IN THE TREATMENT OF BENIGN PROSTATIC HYPERPLASIA

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Abstract. Combined with data mining and network pharmacology, the intervention effect of 9 high-frequency traditional Chinese medicines, Astragalus, Salvia miltiorrhiza, Poria cocos, Cortex Phellodendri, Angelica, Peach Kernel, Wangbuliuxing, Achyranthes Bidentata, and Alisma, on benign prostatic hyperplasia was investigated. The main active ingredients such as quercetin, β-sitosterol, tanshinone IIA, and kaempferol regulate cancer pathways, PI3K-Akt pathway, chemical carcinogenesis- Receptor activation pathway and bladder cancer and other signaling pathways, so as to achieve the purpose of treating benign prostatic hyperplasia.

Keywords: Traditional Chinese Medicine, Chinese Medicine Patent Compound, Benign Prostatic Hyperplasia, Data Mining, Network Pharmacology

Benign prostatic hyperplasia (BPH) is a urinary system disease commonly seen in middle-aged and elderly men, often accompanied by symptoms such as progressive urination, urgency, nocturia, dysuria, and interruption of urination. According to its clinical characteristics, traditional Chinese medicine classifies it as Lin Zheng or Long Bi category.During the treatment, it can be used to help Yang transform Qi, warm the spleen and nourish the kidney, tonify the kidney and consolidate essence, invigorate the spleen and remove dampness, transform Qi and promote water flow, activate blood circulation and remove blood stasis, relieve dampness and detoxify, clear away heat and diuresis and other therapeutic principles[1].

Objective

To explore the molecular biological mechanism of high-frequency traditional Chinese medicine in the treatment of benign prostatic hyperplasia by means of data mining and network pharmacology.

Materials and methods

Using «prostatic hyperplasia AND traditional Chinese medicine» and «benign prostatic hyperplasia AND traditional Chinese medicine» as the search formula, search the national patent database for the patents of traditional Chinese medicine compound prescriptions for the treatment of benign prostatic hyperplasia, collect the drug composition of the patent compound, use Excel to build a prescription database, and count high-frequency Chinese medicine. Using the traditional Chinese medicine systems pharmacology database and analysis platform (TCMSP), GeneCards and Drugbank databases to obtain the targets of traditional Chinese medicine compounds and benign prostatic hyperplasia, construct a protein-protein interaction network map, and screen the core targets, and use the Metascape platform to analyze the core targets. Network pharmacology methods such as Gene Ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) enrichment analysis were used to analyze the pharmacology of the top nine high-frequency

Chinese medicines and try to elucidate their molecular biological mechanisms.

Results and discussion

A total of 152 prescriptions were included, including 319 traditional Chinese medicines. Among them, the top nine high-frequency traditional Chinese medicines include: Astragalus (43 times), Salvia miltiorrhiza (37 times), Poria cocos (35 times), Cortex Phellodendri (35 times), Angelica (33 times), Peach Kernel (32 times), Wangbuliuxing (30 times), Achyranthes Bidentata (28 times), Alisma (28 times).A total of 90 intersections were obtained after comparing the drug targets with the disease targets using the database and analysis platform of traditional Chinese medicine systems pharmacology (TCMSP).Among them, the targets highly related to the treatment of benign prostatic hyperplasia are STAT3, AKT1, MYC, ESR1, and TP53. The results of GO enrichment analysis show that the active ingredients of high-frequency traditional Chinese medicines play their roles through biological processes such as hormone response, cellular response of organic ring compounds, and cellular response to nitrogen compounds; the targets of action include membrane rafts, transcriptional regulatory complexes , platelet alpha granule lumen, cyclin-dependent protein kinase holoenzyme complex and other cellular components; it has molecular functions such as kinase regulatory activity, G protein-coupled amine receptor activity, and kinase binding.The results of KEGG pathway enrichment analysis showed that Astragalus, Salvia miltiorrhiza, Cortex Phellodendri, Wangbuliuxing and Achyranthes Bidentata mainly acts through the cancer pathway and PI3K-Akt pathway; Salvia miltiorrhiza, Cortex Phellodendri, Wangbuliuxing and Achyranthes Bidentata mainly acts through the bladder cancer pathway; and Astragalus, Salvia miltiorrhiza, Cortex Phellodendri and Achyranthes Bidentata mainly acts through the chemical carcinogenesis-receptor activation pathway. The pathways with high utilization of nine traditional Chinese medicines in the treatment of benign prostatic hyperplasia are cancer pathway, PI3K-Akt pathway, bladder cancer pathway and chemical carcinogenesis-receptor activation pathway [2].

Through data mining, the first nine high-frequency traditional Chinese medicines for the treatment of benign prostatic hyperplasia were obtained, and network pharmacology analysis was used to reveal that they achieve the purpose of treating benign prostatic hyperplasia through cancer pathways, PI3K-Akt and other pathways.

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NETWORK PHARMACOLOGICAL ANALYSIS OF THE MECHANISM OF ACTION OF ASTRAGALUS- ASCENDING MARIJUANA IN THE TREATMENT OF HEART FAILURE

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Abstract. Patients with heart failure (HF) have typical symptoms and signs of HF, which involve multiple factors in its occurrence and development, including diastolic dysfunction, ventricular-arterial coupling disorder, systemic and local cardiac inflammation, endothelial dysfunction, myocardial energy metabolism abnormality, etc. HF is widely prevalent worldwide, and the number of patients and deaths is gradually increasing. HF patients have poor prognosis, with a 5-year mortality rate of up to 50%. HF poses a huge threat to human health and also causes a heavy burden on the health care system.

Keywords: Network Pharmacological; Mechanism; Heart Failure

Objective

The goal is to explore the mechanism through which traditional drugs, when applied to Astragalus and Ascending Marijuana, treat heart failure, leveraging a network pharmacology approach. Methods

We utilized the TCMSP database (http://tcmspw.com/tcmsp.php) to individually search for «Huangqi» and «Shengma». Active ingredients were identified using criteria of OB≥30% and DL≥0.18. The active ingredient IDs were then used to source the corresponding target proteins. We standardized the target protein names by incorporating them into the Uniprot database (https://www.uniprot.org/). To acquire heart failure-related proteins, we used «Heart Failure» as a

search term in the OMIM database (https://omim.org/), GeneCards database (http://www.genecards.org/), and TTD database (http://db.idrblab.net/ttd). The intersection of drug target proteins and disease proteins was determined and saved as Drug-Disease files. PPI interactions were predicted using the STRING database (http://string-db.org), and the top 10 proteins were identified as core proteins via the CytoNCA plug-in in Cytoscape-v3.9.1 software. The active components and target proteins of Astragalus and ascending marijuana were incorporated into Cytoscape-v3.9.1 software, whereupon a topological analysis was conducted and component-target networks were established. The nodes symbolize the compounds and targets, whereas the edges represent interactions between these nodes. Finally, we performed GO function enrichment analysis and KEGG pathway enrichment analysis on the Drug-Disease file using the DAVID database (https://david.ncifcrf.gov/).

Results and discussion

Our study screened a total of 24 active components from Astragalus and Asclepias, which included 17 active components of Astragalus and 8 active components of Asclepias. Additionally, we identified 194 drug target proteins. We screened 1413 heart failure-related targets and acquired 190 intersecting targets. A topological analysis led to the screening of 10 core targets: IL4, AKT1, RXRA, CYP1A1, RELA, IL6, TNF, and JUN. In addition, we identified 15 active ingredients: (6aR,11aR)-9,10-dimethoxy-6a,11a-dihydro-6H- benzofurano[3,2-c]chromen-3-ol, 3,9-di-O-methylnissolin, 7-O-methylisomucronulatol, calycosin, formononetin, jaranol, hederagenin, isorhamnetin, kaempferol, quercetin, Stigmasterol, Visamminol, (Z)-3-(4-hydroxy-3-methoxy-phenyl)-N-[2-(4-hydroxyphenyl)ethyl] acrylamide from Asclepias, Tuberosine A, and cimicifugic acid. Our GO functional enrichment analysis yielded a total of 989 functional entries ($P<0.05$). From these, we derived 732 entries for Biological Processes (BP), primarily associated with response to hypoxia, positive regulation of the MAPK cascade, positive regulation of the apoptotic process, cellular response to hypoxia, and reactions to reactive oxygen species and tumor necrosis factor, along with the apoptotic process and the inflammatory response. We identified 94 entries related to Cellular Components (CC), mainly associated with membrane raft, integral components of the plasma membrane, extracellular space, and nucleoplasm. Moreover, 163 items were identified for Molecular Functions (MF), which included enzyme binding, protein binding, identical protein binding, transcription factor activity, and sequence-specific DNA binding, among others. Our KEGG pathway enrichment analysis produced 176 ($P<0.05$) signaling pathways. These pathways included lipid and atherosclerosis, fluke, fluid shear stress and atherosclerosis, AGE-RAGE signaling pathway in diabetic complications, IL-17 signaling pathway, TNF signaling pathway, endocrine resistance, Toll-like receptor signaling pathway, and the MAPK signaling pathway, among others.

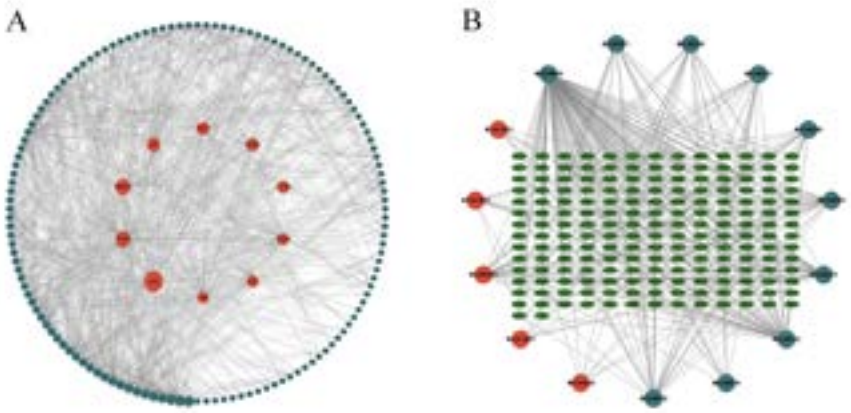

Fig1 (A) Core Target Map, (B) Component-Target Network

Conclusion

This study offers preliminary verification of the primary targets and associated pathways of astragalus and ascending anesthetics in the treatment of heart failure, utilizing a network pharmacology approach. This groundwork sets the stage for further experimental research and future clinical applications.

APPLICATION OF CORE INDICATORS SET IN TRADITIONAL CHINESE MEDICINE RESEARCH

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Abstract. The introduction of Core Outcome Sets (COS) aims to reduce outcome measure heterogeneity in clinical research. Incorporating the concept and methodology of COS is a promising approach to enhance the development of COS in clinical trials within Traditional Chinese Medicine (TCM). COS can be valuable in various types of clinical research, particularly in the context of safety evaluations for new Chinese herbal medicines. Furthermore, in secondary research, the application of COS in systematic reviews and review updates can increase research value to some extent.

Keywords: COS, evidence-based medicine, TCM, retrospective analysis, RCT

In 2010, Paula Williamson and others initiated the «Core Outcome Measures in Effectiveness Trials (COMET)» initiative, aiming to advance the methodology of core outcome measures and promote research and application of COS. The concept of COS was introduced to reduce heterogeneity in outcome measures in clinical research [1]. Similar challenges exist in clinical research within TCM, particularly concerning non-standardized, irrelevant, and inappropriate measurement timepoints for outcome indicators. Therefore, the introduction of the concept and methodology of COS holds great promise in addressing these issues and strengthening the development of COS in TCM clinical trials [2].

1.Current Status of Core Outcome Sets Research in the Field of TCM

Currently, there are nearly 100 COS registered in the databases of the Core Outcome Measures in Effectiveness Trials (COMET) initiative and the Evidence-based Traditional Chinese Medicine Research Registration Platform. Within the COMET database, the types of COS research cover sets applicable to different scenarios, while the COS registered in the Traditional Chinese Medicine Evidence-based Research Registration Platform are primarily related to clinical research and clinical practice. As of September 2022, ten research outcomes related to COS in the field of Traditional Chinese Medicine have been publicly disclosed. Due to the relatively recent dissemination of results from COS research in the TCM domain, three studies have not received any citations, while the most cited study has been cited 22 times. Completed COS have received relatively few citations in clinical research systematic reviews, and there are no complete reports of COS relevant to clinical research or systematic evaluations.

2. The Application of Core Outcome Sets in Traditional Chinese Medicine Research

In recent years, researchers have become increasingly aware of the importance of developing COS for clinical safety assessments, specifying whether the focus is on efficacy evaluation, safety evaluation, or a combination of both in COS research. In the field of TCM research, it is crucial to introduce COS for clinical safety evaluations in the context of combining Chinese and Western medicine. This should encompass adverse reactions reported exclusively in Chinese medicine, those reported exclusively in Western medicine, as well as those reported in both Chinese and Western medicine. By doing so, it will facilitate a better understanding of the potential reasons for the occurrence of adverse reactions in future research and clinical practice [3].

COS can play a role in various types of clinical research, especially in the context of new Chinese herbal medicines. By applying COS, it is possible to accumulate clinical research evidence regarding the efficacy of core outcome measures at different stages of research, which can aid drug regulatory decision-making. The application of COS for clinical safety evaluations not only reduces potential selective reporting bias but also provides safety assessment evidence in pre-market and post-market clinical evaluations, serving as a basis for revising drug labeling.

3. The Application Value and Prospects of Core Outcome Sets in Secondary Research

In systematic reviews and review updates, the application of COS can enhance the value of research. Currently, outcome measures selected in systematic reviews are primarily based on those reported in the original studies. If relevant COS were not reported in the original studies, it may not be possible to combine them in the systematic review, or only a subset of studies may be eligible for inclusion. However, systematic reviews, including review updates, serve not only to provide higher-level evidence for clinical practice but also to identify and describe issues existing in the constructed clinical questions, providing a basis for future research directions. Therefore, for researchers conducting systematic reviews, if relevant COS for clinical research exist, it is crucial to fully report the outcome measures from the COS, even if some measures were not included in any clinical research reports. Providing explanations for non-inclusion of certain outcome measures can assist researchers in exploring the reasons for

their lack of adoption by clinical researchers, thus continuously improving and updating COS to meet the needs of all clinical research.

Conclusion

In future research, it is crucial for researchers to continuously improve the methodology of COS research. This includes developing COS that align with diverse research needs, are acceptable to different stakeholder groups, and demonstrate high applicability. Additionally, efforts should be made to update or expand existing COS, enabling them to be applicable not only in clinical research but also in systematic reviews.

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APPLICATION OF PUSHING MANIPULATION ON QIAOGONG ACUPOINT IN THE IMMEDIATE ANTIHYPERTENSIVE TREATMENT OF ESSENTIAL HYPERTENSION

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Abstract. Essential hypertension (EH)is the number one single risk factor contributing to the global disease mortality. Sudden elevation of blood pressure in hypertensive patients, even above 180/120 mmHg, can be accompanied by progressive cardiac, cerebral, renal, and other vital target organ insufficiency, in which case the blood pressure needs to be lowered as soon as possible to control it within a certain range. Every year, 77,000 to 10.4 million people die because of elevated blood pressure. Surveys show that about a quarter of the world's population suffers from EH, the Russian Far East and China's Northeast region and other areas belong to the cold regions, affected by the climatic environment, dietary habits, the prevalence of EH is higher than the non-cold regions, the treatment of EH is almost accompanied by the patient's life, and actively explore complementary therapies for the prevention and treatment of EH is of great significance. Through the technique of pushing, Pushing on Qiaogong stimulates vagus nerve to lower blood pressure.Through reviewing the literature and ancient books, I have proved through many theoretical bases and clinical studies that the Pushing on Qiaogong is an effective method for treating hypertension.

Keywords: Hypertension;Qiaogong acupoint;Curative effect

The Qiaogong point is located in the depression under the high bone behind the ear to the top of the clavicle, along the sternocleidomastoid muscle in a straight line. It is on the line from Yifeng point to Quepen point. It was first seen in the «infantile massage» edited by Jin Yicheng, «The Qiaogong point is on both sides of the neck, forming a line along the sternocleidomastoid muscle. « According to ancient literature records, Qiaogong point is an empirical acupoint summed up by physicians, which has the effect of immediate blood pressure reduction.

Objective

By analyzing the mechanism and advantages of the Pushing on Qiaogong to normalize blood pressure in essential hypertension, it provides adjuvant treatment options and ideas for the use of Chinese traditional medicine in clinical immediate antihypertensive applications.

Materials and methods

The data in this paper comes from 50 documents in the database of China Knowledge Network (CNKI), as well as 30 ancient books. By analyzing the historical evolution, mechanism of action, and clinical application of the Pushing on Qiaogong method of treating hypertension, the validity of this method for immediate blood pressure reduction was concluded.

The threaded surface of the thumb of the right hand contacted the skin, and the remaining four fingers were naturally adducted, pushing from Yifeng point to Quepen pointon the same side, with a pressure of about 1Kg, adjusted according to the patient's condition, and operated about 30 times, with a treatment time of 1 minute. Repeat the above operation on the other side.

Results and discussion

According to the distribution of meridians, the meridians passing through the Qiaogong

acupoint are: Hand Yangming Large Intestine Meridian, Hand Sun Small Intestine Meridian, Hand Shaoyang Sanjiao Meridian, Foot Yangming Stomach Meridian, and Foot Shaoyang Gallbladder Meridian. Because the Qiaogong acupoint brings together the five Yang meridians, it has more qi and blood, and therefore has a better effect on diseases caused by hyperactivity of qi and blood. At the same time, it can treat other symptoms related to hypertension such as dizziness and irritability. From the perspective of modern medical theory, the location of Qiaogong acupoint is the area where the sternocleidomastoid muscle is located, and its local anatomical structure consists of skin, superficial fascia and deep fascia. In the sternocleidomastoid muscle deep fascia between the superficial and deep layers, accompanied by the neck of the blood vessels and nerves, which the carotid artery sheath is considered by modern medicine to be the core of the effect of pushing on Qiaogong to lower blood pressure. In addition to the arteries and veins, there are also vagus nerves, through the stimulation of the vagus nerve, to reduce the sympathetic excitability, so as to achieve the purpose of lowering blood pressure. In addition, the end of the common carotid artery and the internal carotid artery at the beginning of the expansion of the part known as the carotid sinus, the location of the carotid sinus is also overlap with the bridge arch point, the recent Zhang Shaoqun et al. Zhang Lei et al. respectively, through the carotid atherosclerosis of the rabbits and crab-eating monkeys to push on Qiaogong of treatment, Qiaogong acupoint to push the mechanism of antihypertensive stimulation of carotid sinus caused by the drop in blood pressure.

A more systematic review of traditional Chinese medicine massage techniques for the treatment of hypertension, in many massage writings and clinical experiments, it is pointed out that push the bridge arch maneuver can play a very good immediate antihypertensive effect. It is summarized that Qiaobao acupoint is an empirically effective acupoint for the treatment of hypertension, which can achieve rapid blood pressure lowering effect through precise selection of acupoints, precise manipulation, and fine treatment, and has the advantages of benign, bidirectional regulation, and non-toxic side effects.

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THE PRACTICAL APPLICATION OF EMOTION CONQUERING METHOD IN TREATING ESSENTIAL HYPERTENSION COMPLICATED WITH ANXIETY STATE

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Abstract. Hypertension is one of the main diseases that threaten people's life, while our country is the most serious country by hypertension [1].Its main pathogenesis is hyperactivity of liver-yang and deficiency of liver-kidney Yin, which belongs to the categories of headache and vertigo. At present, emotional intervention of traditional Chinese medicine is an important means to prevent and treat hypertension.As one of the characteristic techniques of traditional Chinese medicine, the Emotion Conquering Method of traditional Chinese medicine is mainly carried out by the corresponding expression, speech, behavior and attitude of patients, which can effectively relieve negative emotions and improve anxiety state.On the basis of basic drug therapy and general psychological nursing, the special nursing method of traditional Chinese medicine emotional nursing is used to intervene in hypertensive patients, supplemented by traditional Chinese medicine emotional intervention measures, which can achieve the purpose of reducing and stabilizing blood pressure, and achieve the effect of effectively reducing the damage of target organs.

Keywords: emotion conquering method, essential hypertension, anxiety state

Modern studies have shown that anxiety can increase vascular tension, increase resistance, and raise blood pressure.At the same time, the sympathetic nerve excitation causes the glomerular artery to continue to contract, resulting in hypertension for a long time [2].Traditional Chinese medicine believes that hypertension belongs to the category of «vertigo», and the occurrence and development of diseases are significantly related to emotional factors [3].Anxiety is a strong predictor of cardiovascular endpoint events, leading to worsening disease in an increasing number of patients with «two hearts.»The two diseases of essential hypertension and anxiety are causal

and influence each other. For their treatment, the patients who take Western medicine for a long time are not acceptable and their compliance is poor. However, the emotional intervention based on the whole syndrome differentiation of traditional Chinese medicine has played a unique advantage and role.

Objective

To demonstrate the effectiveness of the method and its more far-reaching clinical application value by analyzing the treatment process of hypertension complicated with anxiety.

The effectiveness of the Shengsheng method shows the more far-reaching clinical application value of the emotional Shengsheng method.

Materials and methods

A systematic review of the treatment ideas of emotional intervention was made, and it was concluded that the individual scheme of emotional intervention was effective, especially the best one.Sadness can cure anger, with the words of Cang griefs feeling;Joy can cure sorrow, with banter obscene words to entertain;Fear can rule happiness, with disaster from the word of the cang to fear;Anger can be thought over and touched with insulting words;Thinking can cure anger, in order to worry about the other forget the words taken away.

Results and discussion

Many studies have proved that the application of emotion conquering method has a good effect on improving the disease and psychological status of patients. Liu Lifang and Su Wencai have both confirmed that emotion conquering method has a significant effect on essential hypertension combined with anxiety.Essential hypertension combined with anxiety is a typical two-heart disease, and its treatment mode starts from the heart and psychology, and finally achieves «mind-body treatment».The emotion conquering method victory does not use emotional stimulation as a means, but aims at resolving and eliminating emotions.Emotional stimulation or replacement, will still leave traces and effects of emotional effects, only completely eliminate the harmful effects of emotions, can be radical treatment and prevention of disease.The advantage of emotional therapy is that it can fundamentally reshape cognition by tracing back emotions and dealing with the root causes.

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DISCUSSION ON THE MECHANISM OF TREATING ALLERGIC RHINITIS WITH INTRANASAL ACUPUNCTURE

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Abstract. This article introduces the special treatment of Chinese medicine, nasal acupuncture treatment of allergic rhinitis outstanding effect, especially for the improvement of nasal congestion symptoms. The traditional Chinese medicine mechanism of treating allergic rhinitis with intranasal acupuncture was discussed. Intranasal acupuncture can fundamentally balance Yin and Yang of patients, thereby regulating lung qi, relieving pathogenic factors and clearing nasal orifice. Intranasal acupuncture can shrink blood vessels, reduce glandular secretion, narrow the turbinate, enlarge the nasal passage and improve the symptoms of rhinitis.

Keywords: allergic rhinitis; nasal acupuncture; Chinese medicine

Allergic rhinitis is a series of diseases caused by allergic inflammation of nasal mucosa caused by immune response under the stimulation of allergens, causing sneezing, nasal itching, nasal congestion, runny nose and other symptoms. The causes of AR mainly include internal causes and external causes, the external causes are mostly related to evil qi invasion or seasonal environment, the internal causes are mainly responsible for the lung, spleen, kidney three viscera damage, but also related to physical factors. At present, Western medicine mainly uses nasal glucocorticoids for AR treatment, but long-term use is prone to drug resistance, resulting in adverse reactions such as nasal bleeding, bloodlike discharge, nasal burning sensation, and irritation pain, which are prone

to relapse after drug withdrawal [1]. Intranasal acupuncture can effectively relieve nasal congestion symptoms and improve patients' quality of life.

Objective

The treatment of allergic rhinitis with intranasal acupuncture was analyzed theoretically.

Materials and methods

Intranasal acupuncture is a treatment that improves ventilation and related symptoms by needling the inner lining of the nasal mucosa at the junction of alar cartilage and turbinate and the nasal mound at the front of the turbinate in the outer wall of the nasal cavity, thereby causing vasoconstriction, reducing glandular secretion, narrowing the turbinate, and enlarging the nasal passage.

Results and discussion

AR's recurring nasal itches, parochial sneezing, runny nose, nasal congestion, etc., are often accompanied by allergic diseases such as bronchial asthma, allergic conjunctivitis and urticaria. With the change of living environment and the development of society, the incidence rate is also increasing year by year, causing huge troubles to patients' daily work, study and life, as well as their physical and mental health. The current medical level of AR can not be completely cured, although western medicine treatment is effective, but the long-term effect is not good, and accompanied by adverse reactions. So far, the cause of traditional Chinese medicine has been thousands of years of history, acupuncture as the main means of traditional Chinese medicine, curative effect is naturally affirmed, intranasal acupuncture as the extension of traditional acupuncture, also has significant clinical effect, is a new symbol of the modernization of traditional Chinese medicine.

Intranasal acupuncture was pioneered by Professor Liu Daxin from Dongzhimen Hospital of Beijing University of Chinese Medicine [2], and the acupuncture sites are Neiyingxiang point and Biqiu point.The inner Neiyingxiang. and Biqiu are both in the nose, and the needle feeling is strong when the patient is needled, which can quickly relieve the obstruction of ventilation. On the one hand, it is a local point selection method, and on the other hand, acupuncture at the point may make the inferior turbinate contract due to the spongy tissue rich in blood vessels at the anatomical position of Neiyingxiang. It may regulate the release of corresponding neuropeptides, reduce the neurogenic inflammatory response of nasal mucosa, and relieve nasal symptoms [3].

Traditional Chinese medicine believes that intranasal acupuncture has the effect of fundamentally balancing Yin and Yang of patients, regulating lung qi, relieving pathogenic factors, clearing nasal orifice, and has the effect of curing the root cause. In this study, the acupuncture operation of patients with allergic rhinitis was carried out under nasal endoscope, and the positioning was accurate during the acupuncture process, which reduced the difficulty of operation and the incidence of adverse reactions, and improved the accuracy and safety of acupuncture. Intranasal acupuncture directly acupunctures specific areas of nasal mucosa rich in nerves and blood vessels. Compared with ordinary acupuncture, intranasal acupuncture has a direct effect and stronger stimulation force. Compared with surgery, intranasal acupuncture is easier to operate and safer.

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FRONTIER AND HOT TOPICS IN «SHAPE AND SPIRIT INTEGRATION» THERAPY BASED ON CITESPACE BIBLIOMETRIC ANALYSIS

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Abstract. In this paper, we searched the relevant literature on the theory of «form-spirit unity» in Chinese medicine published on the China Knowledge Network (CNKI) from the establishment of the database to July 24, 2023, and conducted hot research on the theory of «form-spirit unity» in Chinese medicine with the help of CiteSpace (version 6.1.R6) software. The hotspot research on the theory of «Form and Spirit» in TCM was conducted with the help of CiteSpace (version 6.1.R6). According to the 210 documents obtained from the search and screening, the research frontiers, and hotspots of the theory of «the unity of form and spirit» in Chinese medicine are «psychosomatic diseases» and «the relationship between form and spirit». The main diseases treated based on this theory are «double heart disease» and insomnia.

Keywords: Citespace; Chinese medicine; shape and spirit

The concept of «form and spirit as one» is a Chinese medical concept of life under the influence of the ancient Chinese philosophical theories related to form and spirit, where «form» is the carrier of human physiological and pathological activities, and «spirit» refers to human consciousness, thinking, emotions and other spiritual activities. «Form» is the carrier of human physiological and pathological activities, while «Shen» refers to human consciousness, thinking, emotions, and other spiritual activities. Qi is the material foundation of God and the bridge between form and God. Scholars often refer to the concept of «the unity of form and spirit» as «the unity of form, qi and spirit». The concept of the oneness of form and spirit emphasizes the overall unity of life activities between human form and spiritual thinking and consciousness, and the organic integration of human physiology and psychology. [2]

The concept of «the unity of form and spirit» reflects the holistic concept of Chinese medicine, emphasizing that when treating disease, the doctor should not only pay attention to the patient's physical symptoms, but also pay attention to the patient's spiritual and emotional changes, and intervene to ultimately achieve the purpose of the co-regulation of the form and spirit. [3]

Objective

Tracking Chinese medicine's «form and spirit» theory research hotspots to analyze its research status and development trend, to provide theoretical basis and ideas for the treatment of diseases in Chinese medicine, especially the use of non-pharmaceutical innovative therapies. The main disease to which the analytical theory applies - «Diseases of the two hearts», and insomnia.

Materials and methods

The data were obtained from the China Knowledge Network (CNKI) database. After practice, we determined the search term «form and spirit as one», and searched in the advanced search of three databases respectively, with the year set as from the establishment of the database to July 24, 2023, excluding patents, newspapers, advertisements, conferences, and other documents and duplicates that were irrelevant to this topic, and finally obtained 210 articles.

Results and discussion

The analysis shows that the research on the theory of «Form and Spirit Integration» is mainly concentrated in the Beijing University of Chinese Medicine and China-Japan Friendship Hospital, and the use of this theory in the treatment of «Dual Heart Disease» and «Insomnia» is the focus of the current research on the disease, and the «Relationship between Form and Spirit» is the interpretation of the current Chinese medicine classics and the experience of the old and famous Chinese medicine practitioners.

It is an important branch of psychosomatic diseases. According to the theory of Chinese medicine «form and spirit as a whole», double heart disease can be understood as the heart of the master of the divine and the master of the blood vessels due to the dual disorders, «the heart for the five organs and six bowels of the Lord», «the heart for the monarch of the official» is Traditional Chinese medicine summarizes the status of the heart; the heart is the master of the blood vessels and the master of God, which is the overall embodiment of the functional heart and the divine heart. Applying the theory of the oneness of form and God, in addition to the treatment of the lesions of the «tangible body», we pay more attention to the care of the oneness of form and God, especially focusing on the impact of God's changes, and created a series of therapeutic methods, which are widely used in the clinic and have been unanimously recognized. He has developed a series of therapeutic methods, which are widely used in clinical practice and have been unanimously recognized.

Insomnia is the equivalent of insomnia in

Chinese medicine, which is referred to as «not being able to lie down» and «not being able to see all night» in the Yellow Emperor's Classic of Internal Medicine (HUNDI NEIJING). Chinese medicine believes that emotional and emotional factors are the main causes and mechanisms of insomnia. And based on the theory of «form and spirit as one», it is believed that emotions have a two-way regulatory effect on insomnia. Inappropriate emotions can cause qi rebellion, and excessive mental consciousness activities, will destroy the physiological balance of the body's internal environment, causing internal organ qi disorders and diseases. Therefore, insomnia occurs. Treatment should also start by regulating the movement of qi and the seven emotional phases.

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ANALYSIS ON THE LATEST RESEARCH PROGRESS OF ACUPUNCTURE THERAPY FOR CHRONIC FATIGUE SYNDROME

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Abstract. Chronic Fatigue Syndrome (CFS) is characterized by severe fatigue that cannot be alleviated and seriously affects the quality of life of patients, with an incidence of 0.8% to 3.5% worldwide. Traditional Chinese medicine has a significant effect on the treatment of CFS, among which acupuncture is more significant in improving the clinical symptoms and fatigue degree of CFS patients.Acupuncture and moxibustion is the most effective method of TCM treatment of CFS, and its advantages are not only simple operation and high safety, but also easier for patients to accept, and the price is cheap.These treatments are often used in clinical treatment of CFS in China. Therefore, this article collates and analyzes the literature on the treatment of chronic fatigue syndrome by acupuncture in recent years, and proves that acupuncture has good curative effect and advantages in the treatment of CFS.

Keywords: chronic fatigue syndrome, acupuncture, research progress

Chronic fatigue syndrome is characterized by long-term extreme fatigue that lasts for more than 6 months, Clinical symptoms are often accompanied by low fever, short-term memory loss or inability to concentrate attention, pharyngeal pain, lymph node pain, joint pain without redness and swelling, headache, physical discomfort after physical or mental work, sleep disorders, depression and other clinical syndroms characterized by a variety of physical and psychiatric symptoms [1]. As a chronic wasting disease, it can not quickly threaten life, but it affects the physical and mental health of the sufferer. The U.S. center for disease control(CDC) [2] estimates that chronic fatigue syndrome is the leading disease affecting human physical and mental health, and will be labeled as a priority health problem.In recent years, with the progress of society, people's study, life, work and other pressures are also increasing in the same proportion, making people's body and mental state in fatigue for a long time, even if they can rest, it is difficult to ease, so the incidence of chronic fatigue syndrome is also increasing year by year, according to the research results, CFS in China shows a trend of younger people. At present, the incidence of adolescents is as high as 0.09% [3], which has become a hot topic of medical attention.

Objective

Based on the collection, collation and analysis of various literatures on the treatment of chronic fatigue syndrome by acupuncture and moxibustion in recent years, this paper discusses the current status of external treatment of chronic fatigue syndrome by traditional Chinese medicine, with a view to guiding clinical diagnosis and treatment, improving curative effect and alleviating patients' pain.

Materials and methods

By searching six Chinese and English databases: CNKI, Wanfang Data Knowledge Service Platform (WF), VIP database (VIP), Embase, Pub Med and The Cochrane Library, literatures on randomized controlled trials

(RCT) of acupuncture and moxibustion for CFS were collected. Including acupuncture, electric acupuncture, fire needle, moxibustion and other methods of research. To analyze the exact curative effect of various acupuncture methods on CFS.

Results and discussion

It was found that Ming acupuncture at Back Shu point had a good effect on CFS, and its short-term curative effect was significant. The effect of acupuncture on head point plus Jiaji point is better than that of conventional acupuncture in treating CFS. In addition, electroacupuncture and fire acupuncture are effective in the treatment of CFS. Moxibustion Qihai and Guanyuan can improve the clinical symptoms and fatigue degree of CFS patients, improve their immunity, and improve the treatment effect and quality of life of CFS patients, which is an effective way to treat CFS.

In recent years, with the increasing pressure of people's life and work, the number of CFS patients has increased year by year, and the quality of life has also declined. Western medicine has many hypotheses and disputes on the pathogenesis of chronic fatigue syndrome. Generally, it is believed that its pathogenesis is related to excessive fatigue, mental stimulation or pressure, bad work and rest habits, nutritional deficiency, viral infection, endocrine factors of kidney, heredity, immune mechanism, etc. No consensus has been reached on the pathogenesis of this disease, and it is mainly symptomatic treatment. Treatment was carried out for symptoms such as sleep, depression, anxiety and fatigue, or from the aspect of improving immunity. There was no obvious specific drug, and the therapeutic effect was limited.

In comparison, TCM can distinguish the syndrome type of patients through syndrome differentiation and has certain advantages in the treatment of chronic fatigue syndrome. Acupuncture therapy has the advantages of safety, reliability, economy and effectiveness, and plays an important role in the prevention and treatment of CFS through the multi-target function. Different acupuncture and moxibustion methods combined with syndrome differentiation and point selection can effectively alleviate CFS syndrome, improve disease-related pathological changes, and delay the occurrence and development of the disease. Finally, we should take the essence of acupuncture on the basis of the theory, strive for excellence, pay attention to individual differences, in order to give full play to the advantages of traditional Chinese medicine, more accurate syndrome differentiation for patients, pay attention to a variety of therapies, and reduce errors as much as possible.

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ACUPUNCTURE TREATMENT PLUM-STONE QI TEST CASE

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Abstract. The main clinical manifestations of Plum-stone Qi are obstruction of foreign bodies in the pharynx, inability to spit out, and inability to swallow, which are often accompanied by bad emotional stimuli such as depression and anxiety. This disease is more common in young and middle-aged women, the prevalence rate is 46%, and it is often difficult to heal. Western medicine usually uses anti-infective drugs, antidepressants, regulating nervous disorder drugs to treat the disease, but has not produced a good effect, and the recurrence rate is high. Traditional Chinese acupuncture and moxibustion as a special therapy, in the clinical treatment of this disease can achieve good results, and less side effects, so this article will introduce acupuncture and moxibustion treatment of Plum-stone Qi a test case.

Keywords: acupuncture; Plum-stone Qi

Wang Mou, female, 57 years old, first visit on March 14, 2023. The patient developed foreign body sensation in the throat 8 months ago without obvious induction, and no abnormality was found in laryngoscopy. No significant improvement was observed after self-administration of mecobalamine. 5 days ago, I had an argument with my colleagues because of trifles, and the foreign body sensation in

my throat increased. Physical examination showed no congestion and edema in the pharyngeal mucosa.

Objective

To provide therapeutic experience for the acupuncture protocol for the treatment of Plum-stone Qi.

Materials and methods

Traditional Chinese medicine diagnosis of Plum-stone Qi, syndrome is liver stagnation spleen deficiency, spittoon gas resistance. Western medicine diagnosed as pharyngeal allopathy. Acupuncture points are as follows: Main points: Yifeng, Shanzhong, Zhongwan, Hegu, Taichong, Liqi, Zhaohai. Matching points: Qi Hai, Guan Yuan, Neiguan, Yin Ling Quan, Fenglong, Three Yin Jiao, Gongsun. The patient was asked to take supine position, Hegu, Taichong, Shanzhong, Yinlingquan, Fenglongxing twisting and purging method; Qihai, Guanyuan, Zusanli and Sanyin interchanges take twisting and purging method; The other acupoints use the technique of flat replenishment and flat drainage. Leave the needle for 30 minutes and start the needle.

Results and discussion

After 1 week of acupuncture, foreign body sensation in throat, chest duct tightness improved, and sleep quality was normal. After 2 weeks of acupuncture, the foreign body sensation in the throat was significantly reduced, occasionally chest tightness, and the sleep quality was improved. Continue acupuncture for 1 week to consolidate the curative effect. After 1 month follow-up, the symptoms basically disappeared and did not recur.

In this case, the patient felt foreign body sensation in the throat, vomited not out, pharyngeal not, and there was no organic disease, and the disease was Plum-stone Qi. Therefore, it is caused by the inclusion of deficiency and solid, the disease is liver stagnation and spleen deficiency, marked as phlegm stagnation, so the main treatment is to ease the liver and Qi, strengthening the spleen and eliminating phlegm.

Studies have shown that acupuncture Yifeng can relieve spasm of pharyngeal constriction muscle and relax local muscles, thus alleviating foreign body sensation in pharynx. Shanzhong as the qi will, the thorn can guide the qi blocked in the throat, adjust the mood to relieve the patient's depression. The middle duct is the stomach channel Mu point, and the viscera will, the thorn can benefit the qi Fuzheng, remove the wet turbid, regulate the qi machine. Taichong, as the original point of the liver channel, can regulate the passage of Qi; Match with the valley, open four to regulate qi to relieve depression. The patient is 57 years old, over the number of 77 years old, has always been kidney essence deficiency is difficult to nourish the liver wood, according to the sea kidney meridian points, the thorn can tonify the kidney to nourish the liver, and the same as one of the eight pulse intersection points can reach the liver lung Qi machine and Tongli throat. Guan Yuan, Qi sea can supplement the vitality, Tongtoning a qi machine. Inner Guan, Gongsun can Tongli cardiothoracic qi machine. Yin Ling spring belongs to the spleen channel, which can strengthen the spleen and remove dampness to adjust the qi machine. Fenglong is stomach meridian point, spleen and expectorant rather effective. Three Yin jiao can regulate the three channels of liver, spleen and kidney, so as to play the role of strengthening and dispelling evil.

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ACUPUNCTURE COMBINED WITH TRANSCRANIAL REPETITIVE MAGNETIC STIMULATION FOR THE TREATMENT OF COGNITIVE IMPAIRMENT

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Abstract. This study aims to explore acupuncture combined with transcranial repetitive magnetic stimulation (rTMS) as a treatment method for cognitive impairment. Through analyzing relevant literature and clinical experiments, we found that acupuncture and rTMS have limited therapeutic effects on cognitive impairment when applied alone. However, combining the two therapies can achieve significant therapeutic effects. Acupuncture can improve cognitive function by regulating the flow of qi and blood in the body, increasing cerebral blood supply, and regulating neurotransmitters; RTMS can enhance cognitive function by stimulating specific areas of the brain to promote neuronal activity. The combination of two therapies can exert synergistic effects and improve treatment effectiveness.

Keywords: Acupuncture, Transcranial repetitive magnetic stimulation, Cognitive impairment

Acupuncture combined with rTMS is a non-invasive neuroregulatory treatment method that has been widely used to treat cognitive impairment. Cognitive impairment is a pathological state that involves impaired cognitive functions such as attention, memory, and learning abilities, often leading to difficulties and decreased social function in individuals' daily lives. Traditional treatment methods such as medication and psychological intervention often have side effects or rebound after limited therapeutic effects. Therefore, finding new treatment methods has become a research hotspot in the medical community. Acupuncture, as a traditional Chinese medicine therapy, is considered to have the function of regulating human qi and blood and restoring functional balance. As a method of regulating brain electrical activity, rTMS has been proven to have a significant improvement effect on cognitive function. Therefore, combining acupuncture with rTMS in the treatment of cognitive impairment is expected to achieve better therapeutic effects.

Objective

The purpose of this chapter is to explore the effectiveness and mechanism of acupuncture combined with transcranial repetitive magnetic stimulation in the treatment of cognitive impairment.

Materials and methods

For the materials of this study, we selected a group of participants with cognitive impairment. The recruitment of participants is conducted through advertising and medical institutions, ensuring that they meet the inclusion criteria for the study. We have recorded in detail the participants' personal information, disease history, and other relevant medical data. Then, we randomly divided the participants into two groups: one group received acupuncture combined with transcranial repetitive magnetic stimulation treatment, and the other group received placebo treatment as a control group. Compare the therapeutic effects of the experimental group and the control group, and evaluate the effectiveness and safety of acupuncture combined with transcranial repetitive magnetic stimulation in the treatment of cognitive impairment.

Results and discussion

Acupuncture combined with transcranial repetitive magnetic stimulation is an effective method to improve the symptoms of patients with cognitive impairment. According to the research results, this treatment method can significantly improve the cognitive function, attention and Working memory of patients. In addition, acupuncture combined with transcranial repetitive magnetic stimulation therapy can also improve patients' emotions and quality of life. This indicates that acupuncture combined with transcranial repetitive magnetic stimulation therapy has great potential in the treatment of cognitive impairment and is worthy of further in-depth research and application.

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RESEARCH PROGRESS IN THE TREATMENT OF TYPE 2 DIABETES MELLITUS BY TRADITIONAL CHINESE MEDICINE

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Abstract. The type 2 diabetes mellitus (T2DM) is dominated by insulin resistance (IR), and the progressive insufficiency of insulin secretion has become a major burden of public health care. Traditional Chinese medicine has a long history of treating diabetes mellitus (DM) and has irreplaceable advantages. The recent research on the treatment of T2DM by traditional Chinese medicine is summarized, in order to provide reference for the clinical prevention and treatment of T2DM.

Keywords: traditional Chinese medicine; type 2 diabetes mellitus

DM is a metabolic disease characterized by chronic hyperglycemia, multifactorial insulin secretion and/or defective action, common types are type 1 diabetes mellitus (T1DM), T2DM, Gestational diabetes mellitus and specific types of diabetes. Approximately 537 million adults worldwide will suffer from DM in 2021, 643 million in 2030 and 783 million in 2045. The survey shows that the current adult incidence of DM in China is more than 11%, of which T2DM accounts for more than 90%, which is caused by genetic factors and environmental factors, and is a progressive disease characterized by chronic hyperglycemia. Traditional Chinese medicine has a long history in China, and has unique advantages in the prevention and treatment of DM and other chronic diseases, compared with Western medicine, traditional Chinese medicine has the advantages of safety, mildness and long-lasting treatment of DM.

Objective

By studying the effect of traditional Chinese medicine on T2DM, new ideas and new solutions are provided for the clinical treatment of T2DM.

Materials and methods

The relevant literature was reviewed and sorted out through the latest academic research and literature review of traditional Chinese medicine for the treatment of T2DM.

Results and discussion

Western medicine mainly controls blood sugar through oral hypoglycemic drugs and insulin injections, and adverse reactions with long-term use increase. Traditional Chinese medicine uses traditional Chinese medicine to treat DM, which has few adverse reactions, which can improve the quality of life of DM patients and prevent DM complications.

1. TCM's understanding of the etiology and pathogenesis of T2DM

DM belongs to the category of «thirst quenching» in Chinese medicine, and the name of thirst quenching disease was first seen in the «Huangdi Neijing Theory of Curious Diseases» «The fat one makes people hot, and the sweet one makes people full, so their qi overflows and turns into thirst». Thirst is caused by insufficient innate endowments, eating disorders, emotional disorders, overwork, etc. Physicians throughout the ages have mostly used the theory of «yin deficiency and heat» to treat from the lungs, stomach and kidneys. From different perspectives, the pathogenesis and treatment focus of TCM thirst quenching were explained.

2. Treatment of T2DM in traditional Chinese medicine

The reason why Chinese medicine can be corrected lies in the difference between four qi and five flavors, warm and cold. Some scholars have found that Huangjing traditional Chinese medicine preparations for the treatment of T2DM are not inferior to the treatment of Western medicine alone, and pointed out that Huangjing traditional Chinese medicine preparations are most compatible with ginseng and astragalus. In the study on the effect of single flavor Chinese medicine in the treatment of T2DM, it was found that wheat dong, ginseng, bitter melon, ze diarrhea, astragalus, mulberry leaf, Panax notoginseng, schisandra, turmeric and other traditional Chinese medicines had good effect on lowering blood sugar and improving IR.

Studies have found that thirst quenching pills for qi and yin deficiency can significantly reduce fasting blood glucose and glycated hemoglobin levels in T2DM patients, and compound ginseng wheat flower soup with qi yin deficiency and blood stasis has a significant hypoglycemic effect, and it is also clearly pointed out that Bailing capsules, Jinshuibao capsules, compound thrombotong capsules, ginkgo biloba leaves, Liuwei Dihuang pills, brain heart tong capsules and other proprietary Chinese medicines have definite efficacy in the treatment of T2DM.

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ANTI-TUMOR PHARMACOLOGICAL ACTIVITY OF MALONYL GINSENOSIDES

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Abstract. As a natural saponin in ginseng, malonyl ginsenoside is an acidic saponin with high polarity, strong hydrophilicity and easy water solubility. Its content is as high as 35-60% of the total saponin of ginseng, which is an important index for quality control of ginseng raw materials. Malonyl ginsenosides showed anticancer activity by influencing the mTOR pathway which interacts with AMPK pathway. However, effective extraction, isolation and identification of malonyl ginsenosides remains a major challenge. In this paper, the anti-tumor pharmacological effects of malonyl ginsenosides were reviewed, in order to promote people's new understanding of malonyl ginsenosides, and to provide scientific basis for its development into a new drug with high curative effect and low toxic side effects and clinical application.

Keywords: Malonyl ginsenosides, antitumor, AMPK pathway, mTOR pathway

AMPK is an important regulatory protein for maintaining cell energy homeostasis and is a heterotrimer composed of one catalytic subunit (α) and two regulatory subunits (β, γ) . In the context of nutrient deficiency, AMPK acts as a metabolic checkpoint that inhibits cell growth by inhibiting the mTORC1 pathway. AMPK directly phosphorylates mTORC1, blocking the mTORC1 kinase complex from phosphorylating its substrate.

MTOR pathway is a classic pathway in human tumor therapy, and its function is mainly mediated by its downstream target, the ribosome S6 protein (S6K) in the 40S . Prostate-specific antigen (PSA) is a serine protease produced by prostate epithelial cells and prostate cancer (PCa) that is regulated by AR. Elevated PSA levels can be used as a diagnostic marker for tumors or cancers . In addition, IRS-1/PI3K/AKT is one of the most dysfunctional signaling pathways in human malignancy, playing a variety of cellular biological functions such as regulation of metabolism, migration, growth, proliferation, survival, autophagy and genome stability in various tumor cells .

Comprehensive network pharmacology was used to explore the potential molecular mechanism of the anti-tumor effect of Alpine in vitro and to verify it in vitro. Studies have shown that malonyl ginsenosides m-Ra1, m-Ra2, m-Ra3, m-Rd, m-Rd6, m-Re1 and m-Rd5 act on AR, mTOR, PI3K and other targets in the anti-cancer pathway PI3K/Akt/mTOR of ginseng and garden ginseng. The mRNA expression of PSA, S6K, MDM2 and P53 genes is regulated, which has been shown to inhibit the proliferation of breast cancer .

The inhibitory activity of malonyl ginsenosides from Panax Notoginseng bud against SH-SY5Y human neuroblastoma cells was determined by tetramethylazolium salt colorimetry. The results showed that m-floral Rc1, m-noto Fe and MRRC had strong cytotoxic effects on SH-SY5Y cells, and their IC50 values were 10.59, 78.45 and 63.27μM, respectively. However, the saponins substituted by m-noto Ra1, m-gype XVII and mMc on saponins did not produce cytotoxic activity .

Objective

The anti-tumor pharmacological action of propylene glycol ginsenosides was reviewed in order to promote people's new understanding of propylene glycol ginsenosides, and to provide scientific basis for its development into a new drug with high curative effect and low toxic side effects and clinical application.

Materials and methods

Literature from PUbMed, Web of Science,CNKI since 1994 has been collated from these databases.

Results and discussion

In summary, malonyl ginsenosides show certain anticancer effects in mTOR pathway, which interacts with AMPK pathway, but further in vivo and in vitro experiments are needed to verify the universality of the findings. Literature studies have shown that PI3K/AKT/mTOR and AMPK/mTOR pathways have bidirectional regulatory effects on autophagy, so it is speculated that malonyl ginsenosides may play a role in chronic kidney disease, which is closely related to dysautophagy. In addition, malonyl-ginsenosides directly acylated on saponins showed no biological activity compared with acylation substitution on side chain sugar groups. The potential structure-activity relationship is helpful to further study the chemical classification and biological activity of malonyl ginsenosides.

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RESEARCH PROGRESS ON TRADITIONAL CHINESE MEDICINE TREATMENT OF PHYSICAL DISEASE COMORBID WITH DEPRESSION

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Abstract. Depression is one of the most common comorbid diseases of chronic physical diseases, and physical disease comorbid with depression (PDCD) has adverse effects on the course and prognosis of patients. Compared with Western medicine, this paper introduces the new diagnosis and treatment methods of PDCD in traditional Chinese medicine (TCM) in recent years and its advantages. The aim is to provide a new idea for preventing and treating PDCD.

Keywords: PDCD, TCM, mental state, TCM syndrome, prescription

The most common physical diseases of PDCD are diseases of the nervous, cardiovascular, and endocrine systems. However, non-psychiatric clinicians' lack of sensitive recognition thinking and safe and effective treatment strategies for PDCD often leads to missed diagnoses and misdiagnoses. As a result, patients suffer from excessive medical treatment and severely poor prognosis because they do not receive timely and standardized anti-depressant treatment. For TCM, observing the patient's state is critical in diagnosis and treatment. To a large extent, it can prioritize the detection of the abnormal mental state of the patient and propose diagnosis and treatment plans in time. In recent years, with the development of TCM, the number of patients who choose TCM for diagnosis and treatment has also increased, more PDCD patients have been discovered and treated in time, and the cure rate has also increased.

Objective

To evaluate the diagnosis and treatment methods of PDCD in Western medicine and TCM, and to review the advanced research on PDCD based on the theory of TCM in recent years, to evaluate more possibilities of treating PDCD in TCM.

Materials and methods

By July 2023, China National Knowledge Infrastructure (CNKI) has collected, analyzed, and summarized the research on PDCD treatment based on TCM theory in the past five years.

Results and discussion

Western medicine usually combines assay index and imaging examinations to diagnose patients, but it is easy to ignore the abnormal mental state of patients. Compared with Western medicine, listen diagnosis is an essential part of the four ways of diagnosis systems of TCM (look, listen, question, and feel the pulse), and intuitive observation of the patient's mental state is the feature of TCM clinical syndrome differentiation. Among them, auscultation is the main content of listen diagnosis. Based on the current acoustic sensing and signal analysis technology, the digitalization of TCM auscultation indicators can be realized. For example, based on the characteristic analysis of the speech signals of 32 depressed emotion samples, a total of 468 speech distinctive factors were obtained that were consistent with the diagnosis of TCM and the hearing characteristics of the human ear, and it was found that the indicators had a specific quantitative correlation with depressed emotion. This TCM state recognition system based on speech signals

provides a possible digital diagnosis method for the automatic diagnosis of TCM. It can be used as an intelligent auxiliary diagnosis method of TCM. In addition, dialectics is also a critical step in TCM diagnosis, which can be more accurately divided into the types of PDCD patients based on the patient's physique. Taking the patients with chronic heart failure in Qingdao Haici Medical Group as an example, 93 cases of PDCD were found in 230 patients, focusing on eight types of syndromes such as Yang deficiency Qi stagnation syndrome and Yang deficiency water stopping syndrome, and getting more accurate treatment.

Western medicine for PDCD treatment is relatively simple, such as taking anti-depressants such as Deanxit, but its side effects are strong and cannot be targeted to treat different types of PDCD. In recent years, according to different kinds of PDCD, many TCMs or prescriptions have been found to have significant therapeutic effects, such as Pueraria, and its various prescriptions have been widely used in the treatment of various PDCD; Qishenyiqi dropping pills with Astragalus and ginseng as the main components can treat postoperative depression of coronary heart disease; Acupuncture can treat insomnia combined with depression, the above methods have evident clinical efficacy. With the development of science and technology, the TCM inheritance computing platform (V3.0) can more quickly and accurately find the matching prescription for the confirmed syndrome type, which can reduce or cure the PDCD symptoms of patients with lower side effects. In short, for PDCD, TCM has more targeted diagnosis methods, treatment means, and application prospects than Western medicine.

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INVESTIGATION AND REFLECTION ON TRADITIONAL CHINESE MEDICINE KNOWLEDGE IN HUACHUAN COUNTY, HEILONGJIANG PROVINCE

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Abstract. Combining with the fourth national survey of traditional Chinese medicine resources, the knowledge of traditional Chinese medicine in Huachuan County were investigated by means of visit and investigation. A total of 24 local folk prescriptions and 4 drug experiences were collected and collated. The main dosage forms of the prescriptions were sprays. The efficacy of the prescriptions was mainly anti-wind and dampness drugs, accounting for 47.06% of the total prescriptions.

Keywords: Huachuan County, traditional medicinal knowledge, resources, folk prescription, dosage forms

After thousands of years of precipitation, the cause of traditional Chinese medicine in China has unique theory and rich experience. A large number of prescriptions it has accumulated have played an important role in the prevention and treatment of human diseases, physical and mental health, and are still widely used. Folk medicine in Heilongjiang Province has the characteristics of

simplicity, cheapness, efficiency and experience. Some scholars have investigated and studied the knowledge of traditional medicine in some local areas.

Objective

Combined with the fourth national survey of traditional Chinese medicine resources, we investigates and analyzes the knowledge of traditional medicine use in Huachuan County, in order to provide basic data for the development of local medicine industry. This is also the significance of the general survey of traditional Chinese medicine resources as an important component of China's basic national conditions and national strength.

Materials and methods

By visiting rural medical service stations and traditional knowledge holders in Huachuan County, the knowledge and experience of local traditional medicine use were collected and sorted out. Consult the relevant reference books, make statistics on the main types of traditional Chinese medicine involved in local traditional knowledge, and classify and analyze the diversity, medicinal parts and efficacy of these traditional Chinese medicine.

Results and discussion

Through the investigation, a total of 24 folk prescriptions and 4 drug experiences were collected in Huachuan County. The 24 folk prescriptions are Xiangwei Tang Gufengtai, Xiangwei Tang gout, Xiangwei Tang Daipanqing, Xiangwei Tang Fufu Jie, Xiangwei Tang Jun Zujing, Xiangwei Tang stubborn rash Kang, Xiangwei Tang Bailiyun bacteriostatic liquid, Xiangwei Tang hemorrhoid cold root, Xiangwei Tang Shuangjing, Xiangweitang ginseng whip medicine wine, Xiangwei Tang Qingfei detoxification oral liquid Xiangwei Tang moisturizing glycerin, Xu contusion and swelling powder, Xu Jiegu pills, and so on. The test prescription involves 9 major dosage forms, spray, ointment and oral liquid are modern dosage forms, and the other 8 dosage forms are traditional dosage forms. These prescriptions are obtained from local well-known traditional Chinese medicine doctors, and have been clinically verified for many years and have a certain curative effect. The four drug experiences obtained are Juglans mandshurica bark in the treatment of lung cancer, Juglans mandshurica fruit in the treatment of lymphatic cancer, Xanthium strumarium fruit and Glycine max boil water, can treat rheumatism, and Galli Gigerii Endothelium Corneum is dried, fried and crushed with water, which has the effect of soothing the liver and relieving depression.

According to the clinical efficacy of traditional Chinese medicine, 24 prescriptions can be divided into six categories: dispelling wind and dampness, promoting blood circulation and removing blood stasis, clearing heat, tonifying medicine, resolving phlegm, relieving cough and relieving asthma and other 6 categories. Due to the influence of geographical conditions, climate, eating habits and other factors, the residents of the county are prone to rheumatoid arthritis and other diseases, so its medical development is good at treating such endemic diseases. In addition, the empirical prescriptions obtained from this survey are all compound prescriptions, which shows that the role of traditional Chinese medicine in the county is complementary, influence each other, and cooperate with each other to play a synergistic effect.

Among the 24 prescriptions obtained from this survey, the main dosage form is spray, which is mainly used for topical use. the advantage is that it does not need to go through liver metabolism, has few adverse reactions, and can improve drug availability. The main medicinal efficacy is to dispel wind and dampness, and the development of medicine is good at treating this kind of endemic diseases. Although there is no way to study the history of the four drug experiences, the pharmacological demonstration can provide a perspective for new drug development.

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ACTIVE INGREDIENTS OF MEDICINAL PLANTS INFLUENCE INNOVATIVE DIAGNOSTIC AND THERAPEUTIC METHODS IN TRADITIONAL MEDICINE

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Abstract. The active ingredients of medicinal plants are important components to exert clinical therapeutic effects and are also an important basis for evaluating the quality of herbs. It is also an important basis for evaluating the quality of medicinal materials. Defining the accumulation and change rules and formation mechanisms of active ingredients in medicinal plants under the influence of environmental factors is of great significance for the development of the quality of traditional Chinese medicine and traditional medicine. This paper summarizes the effects of different environmental factors on the accumulation of active ingredients in medicinal plants, and researches and prospects the synthesis and accumulation mechanism of secondary metabolites in medicinal plants, so as to provide theoretical basis for the application of medicinal plants under clinical application.

Keywords: medicinal plants; active ingredients; environmental factors.

Traditional medicine is based on traditional Chinese medicine diagnosis and medicinal plants in a therapeutic way, so the quality of medicinal plants directly affects the development of traditional medicine. There are many kinds of medicinal plants with complex chemical compositions, and each medicinal plant usually contains a variety of chemical compositions with different properties and structures. The research of related experts shows that environmental factors form an essential understanding of the quality of medicinal plants, i.e., to improve the accumulation of active ingredients in medicinal plants [1].

Effects of temperature and moisture

Secondary metabolites are one of the products of high or low temperature stress, so high or low temperatures may have an effect on the accumulation of more active ingredients in medicinal plants [2]. The so-called «good times produce yield, bad times produce quality», the formation of the quality of medicinal plants and its environmental stress is inseparable, indicating that the formation of high-quality medicinal plants has a certain effect of adversity, therefore, in the control of the environmental temperature can significantly increase the active ingredients in medicinal plants.

Moderate drought stress can increase the accumulation of active ingredients in medicinal plants, for example, most of the medicinal plants in the arid desert area of China can form medicinal plants with high active ingredients under moderate drought conditions[3]. The active ingredients of medicinal plants are mainly secondary metabolites, under moderate drought stress can promote the synthesis and accumulation of secondary metabolites, improve the quality of medicinal plants, so water is an important environmental factor to regulate the secondary metabolism of medicinal plants and the accumulation of active ingredients.

Effect of soil

Soil fertility refers to the ability of the soil to supply plants for normal growth and development, of which nitrogen, phosphorus and potassium are essential nutrients for plant growth and development, the level of nitrogen, phosphorus and potassium can have an impact on the accumulation of active ingredients in medicinal plants, especially the accumulation of flavonoids, phenolics, alkaloids, terpenoids and other active ingredients in medicinal plants [4]. Soil is an important environmental factor to regulate the secondary metabolism of medicinal plants and the accumulation of active ingredients, which can increase the accumulation content of active ingredients in medicinal plants.

Effect of compound environmental factors

Some studies have shown that compound stress on plant damage than a single stress, compound stress factors play an antagonistic role in each other, and compound stress is more conducive to the accumulation of secondary metabolites; in the drought, salt compound stress, Tibetan barley drought-tolerant type has a higher content of flavonoids and phenolics [5]. The study of active ingredient accumulation under compound environmental factors is of great significance, and the types and contents of secondary metabolites produced by medicinal plants are also different from those of single environmental factors.

Results and discussion

The fundamental reason affecting the quality of medicinal plants is the accumulation of active ingredients in medicinal plants. In recent years, the exploration of the interaction between plants and the environment has been deepened, and the influence of environmental factors on medicinal plants has made important progress. Therefore, it is of great significance to further explore the variation

rule and formation mechanism of the accumulation of active ingredients in medicinal plants in relation to environmental factors, in order to realize the therapeutic effect of medicinal plants in clinical practice and improve the development of traditional medicine.

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CLINICAL STUDY OF GUBEN CHANGNING DECOCTION ON TREATING DIARRHEA-PREDOMINANT IRRITABLE BOWEL SYNDROME (SPLEEN AND KIDNEY YANG DEFICIENCY SYNDROME)

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Abstract. Relying on the Department of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine, this study collected patients with diarrheal irritable bowel syndrome (IBS-D) with spleen-kidney Yang deficiency syndrome, and determined the clinical efficacy of Gubenchangning Decoction in treating IBS-D spleen-kidney Yang deficiency syndrome by observing the influence of Gubenchangning decoction on the TCM syndromes and IBS-SSS. After treatment, the total effective rate of the experimental group was 91.7%, the total effective rate of the control group was 70.6%, and the experimental group was better than the control group ($P<0.05$), suggesting that Gubenchangning decoction has good curative effect on IBS-D spleen-kidney Yang deficiency syndrome.

Keywords: Guben Changning decoction; Diarrhea-predominant irritable bowel syndrome; Spleen and kidney yang deficiency; Clinical observation

Irritablebowelsyndrome (IBS) is a chronic functional bowel disease characterized by recurrent abdominal pain accompanied by abnormal bowel movements or changes in bowel habits[1]. According to clinical waste traits and the proportion of different IBS can be divided into the Diarrhea-predominantIrritableBowelSyndrome (IBS-D), Constipation-predominantIrritableBowelSyndrome, MixedIrritableBowelSyndrome and UnshapedIrritableBowelSyndrome. In China, the most clinically in IBS - D more see, other types of IBS are relatively rare [2]. With the change of people's lifestyle, diet structure, natural environment and social environment, the incidence of IBS-D is also increasing year by year, and the course of the disease is longer and easy to repeat, which has seriously affected the quality of life and physical and mental health of patients.

At present, there is still a lack of specific drugs for the treatment of this disease, and the treatment mainly improves and alleviates the pain and overall symptoms of IBS-D patients. For the main symptoms of IBS-D, abdominal pain and diarrhea, spasmoxic agents are prescribed to relieve pain, intestinal ecology is regulated to prevent diarrhea [3], and other drugs such as chloride channel agonists, gastrointestinal microecological preparations, antibiotics, psychopsychological drugs and so on, which cannot fundamentally treat the disease and have certain limitations [4].

Gubenchangning decoction is the self-designed prescription summarized by the clinical practice of my supervisor. Based on the general principle of the foundation of solidity and nurture, the prescription is treated with the products of Qi analgesia and astringence and diarrhea. The main function of this prescription is to warm up the spleen and kidney, and to prevent diarrhea, which is used for the treatment of spleen and kidney Yang deficiency and spleen and kidney cold syndrome. This formula has achieved good curative effect in treating IBS-D spleen-kidney Yang deficiency syndrome without adverse reactions. Therefore, the clinical efficacy of Gubenchangning Decoction was determined by designing this experimental scheme.

Objective

To observe the clinical efficacy of Gubenchangning Decoction in treating diarrhea-predominant irritable bowel syndrome (IBS-D) with syndrome of spleen and kidney yang deficiency, through Contrasting the traditional Chinese medicine (TCM) syndromes score and IBS-SSS before and after treatment.

Materials and methods

72 patients with IBS-D (syndrome of spleen and kidney yang deficiency) were randomly divided into the experimental group and the control group, 36 cases in each group. The experimental group took Gubenchangning Decoction, and the control group took Shenbeiguchang Capsule. The treatment course was 4 weeks.After 0, 2 and 4 weeks of treatment, the TCM symptom score and IBS-SSS of the two groups of patientswere record, and data were statistically analyzed.

Results and discussion

A total of 70 patients were included in the statistics, there were 36 cases in the experimental group and 34 in the control group. Before treatment, there was no significant difference in TCM syndromes and IBS-SSS scores between the two groups ($P>0.05$), they were comparable. After the treatment, the total effective rate of the experimental group was 91.7%, and the total effective rate of the control group was 70.6%. The experimental group was better than the control group ($P<0.05$).

Comparison of the efficacy of TCM syndromes: After 2 weeks: the scores and total scores of the experimental group were all lower than those before treatment ($P<0.05$), and the scores and total scores in the control group were lower than those before treatment, except for loss of appetite ($P<0.05$). The scores and total scores were significantly lower than that of the control group ($P<0.05$). After 4 weeks: Compared with before treatment, the scores and total scores of the two groups were decreased ($P<0.05$). Compared with 2 weeks later, the scores and total scores of the experimental group were decreased ($P<0.05$). The scores of stool diarrhea, soreness and weakness of waist and knees syndrome and total scores in the control group were decreased ($P<0.05$).

IBS-SSS comparison: After 4 weeks, the total scores of IBS-SSS in the two groups were significantly lower than those before and after 2 weeks of treatment, after 2 weeks and 4 weeks, the total score of IBS-SSS in the experimental group was lower than that in the control group ($P<0.05$).

Thus, Guben Changning Decoction can improve the clinical symptoms of the IBS-D patients with spleen-kidney-yang deficiency syndrome and reduce the severity of the IBS-D patients with spleen-kidney-yang deficiency syndrome.

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ANALYSIS OF PROFESSOR CONG HUIFANG'S MEDICATION RULES FOR POLYCYSTIC OVARY SYNDROME FROM LUNG

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Abstract. This article summarized the rules of medication of Professor Cong Huifang in treating polycystic ovary syndrome (PCOS) from lung. By using the software «Traditional Chinese Medicine Inheritance Calculation Platform (V3.0)», the prescription of patients with phlegm and blood stasis syndrome of PCOS treated by Professor Cong Huifang was statistically analyzed. It was concluded that PCOS with phlegm and blood stasis syndrome accompanied by skin lesions was closely related to lung function, and the treatment with modified Sanren Decoction or Sanzi Yangqin Decoction could obtain good curative effect.

Keywords: Polycystic ovary syndrome; Professor Huifang Cong; Treatment based on theory of lung; Medication rules; Traditional Chinese Medicine Inheritance Support System

Polycystic ovary syndrome (PCOS) is a chronic and difficult reproductive endocrine disorder associated with metabolic abnormalities, with a prevalence rate of 8%-13% [1]. Its clinical manifestations are varied, mainly including abnormal menstruation, infertility, obesity, and androgen excess manifestations such as hirsutism and acne. It affects women's reproductive health and quality of life [2]. Traditional Chinese medicine believes that the etiology and pathogenesis of PCOS are mostly kidney, spleen and liver dysfunction, combined with phlegm dampness, blood stasis and other pathological products [3]. Although certain results have been achieved, there are still some patients with unsatisfactory therapeutic effects. Professor Cong Huifang found in clinical work that PCOS can be treated from the kidney, spleen and liver, but also has a certain connection with the function of the lung, especially for PCOS patients with skin lesions, treatment from lung has achieved confirmed clinical efficacy.

Objective

This study summarized Professor Cong Huifang's experience in treating PCOS from lung and the application rules of traditional Chinese medicine, aiming to provide reference for clinical syndrome differentiation and new drug research and development of PCOS.

Materials and methods

A total of 208 first-diagnosis prescriptions of PCOS patients with phlegm and blood stasis syndrome diagnosed and treated by Professor Cong Huifang from September 2019 to December 2021 were collected and analyzed using the TCM inheritance computing platform. Western diagnostic criteria: According to the «Polycystic Ovary Syndrome Chinese Diagnosis and Treatment Guidelines». Traditional Chinese medicine diagnostic criteria: the main symptoms are abnormal menstruation or infertility, obesity, hirsutism, acne; The secondary symptoms is common symptoms of phlegm and blood stasis syndrome. The main symptoms is necessary, and the second symptoms meets 2 or more items, and combined with the tongue and pulse can be diagnosed.

Results and discussion

Among the 208 prescriptions in this study, there were 93 Chinese medicines, and the top 10 high-frequency Chinese medicines were Pinellia Ternata, Lycopus Lucidus, Radix Cyathulae, Semen Armeniacae Amarae, Radix Platycodi, Actractylodes Macrocephala Koidz, Safflower Carthamus, Peach Kernel, Amomum Cardamomum and Coix Seed. The 48 associated drug use patterns and 90 drug rules were analyzed, and the common drug pairs were analyzed: Radix Cyathulae, Lycopus Lucidus; Radix Cyathulae, Radix Platycodi; Semen Armeniacae Amarae, Radix Platycodi; Peach Kernel, Safflower Carthamus; Radix Platycodi, Semen Armeniacae Amarae, Bupleurum; Radix Glehniae, Liriope Japonicum, Prepared Fleeceflower root; Salvia Miltiorrhiza, Radix Paeoniae Rubra; Radix Paeoniae Alba, Atractylodes Macrocephala Koidz, Radix Angelicae Dahuricae, Cortex Dictamni, Stiff Silkworm, etc. Five core prescriptions were obtained, and the main prescriptions were Sanren Decoction and Sanzi Yangqin Decoction.

Professor Cong Huifang believes that the lung governs the fur and the lung regulates the water channel, and the Dai channel of phlegm and blood stasis are the key pathogenesis of reproductive and metabolic disorders of PCOS [4]. Therefore, whether the lung itself is dysfunctional, or the lung is involved in other viscera dysfunction, resulting in lung dysfunction, all kinds of pathological products such as phlegm dampness and blood stasis can be stagnated in the fur, causing damage to the fur, such as hypertrichosis, acne and acanthosis nigricans. Therefore, the lung is the damaged target of PCOS. For PCOS patients with phlegm-heat interjunction, Sanren decoction can be used to clear damp-heat;

For PCOS patients with phlegm-dampness without heat, Sanzi Yangqin Decoction can be used to treat them. Combined with blood stasis can add Radix Cyathulae, Lycopus Lucidus, Peach Kernel, Safflower Carthamus and other drugs to promote blood stasis.

To sum up, Professor Cong Huifang believes that lung is the damaged target of PCOS, which is closely related to the formation of phlegm and blood stasis. Therefore, modified Sanren Decoction or Sanzi Yangqin Decoction was used in the treatment of PCOS patients with phlegm and blood stasis syndrome accompanied by skin lesions, and the effect was remarkable.

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THE RESEARCH PROGRESS OF ACUPUNCTURE AND MOXIBUSTION IN THE TREATMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Abstract. This article introduced the clinical effect of acupuncture and moxibustion in the treatment of chronic obstructive pulmonary disease (COPD). By searching and summarizing the relevant literature, this paper proved that the treatment of acupuncture and moxibustion has a certain effect on the improvement of symptoms in patients with COPD. In addition, related mechanism studies and animal experiments have also shown that acupuncture has a certain effect on COPD. Acupuncture has less side effects, and the economic burden of patients is lighter, which has certain value in the innovation of COPD treatment.

Keywords: Traditional Chinese medicine, Acupuncture, Chronic obstructive pulmonary disease, Lung distension, Research progress

Chronic obstructive pulmonary disease (COPD) is a chronic respiratory disease characterized by persistent airflow limitation, which can further develop into cor pulmonale and respiratory failure, with high disability and mortality rates[1]. Traditional Chinese medicine has its advantages in the treatment of COPD, which can not be ignored. In recent years, more and more attention has been paid to it by researchers and clinicians, and some progress has been made in the research of acupuncture and moxibustion in the treatment of COPD.

Objective

To summarize the literature and evaluate the clinical efficacy of acupuncture and moxibustion in the treatment of COPD from the perspective of evidence-based medicine, so as to provide a reference for innovating the treatment of COPD.

Materials and Methods

The author searched PubMed, CNKI and WanFang Data by computer to collect clinical observations and laboratory studies on acupuncture and moxibustion for COPD. Search terms: acupuncture, chronic respiratory disease, chronic obstructive pulmonary disease. Search period: January 2003 to January 2023. By summarizing the representative research results, the effectiveness of acupuncture and moxibustion in the treatment of COPD was discussed.

Results and Discussion

Most data suggested that acupuncture can affect the therapeutic effect through the inhibition of inflammation and oxidative stress, as well as neuromodulation[2]. For example, studies by Huan W[3] et al. showed that reducing inflammation JAK3/STAT3/NF-κB pathway can effectively improve the progression of COPD in mice and is an important

pathway to regulate COPD inflammation. In terms of animal experiments, Zhang XF et al showed[4] that the levels of ACh, AChE, IL-6 and TNF-α were reduced after electroacupuncture treatment of Zusanli (ST36) and Feishu (BL13) in COPD rats. The lung function and discharge of vagus nerve were enhanced, and the pulmonary inflammation was significantly improved. The relevant clinical observation literature at home and abroad provides reliable data support for the efficacy of acupuncture in the treatment of chronic inflammatory respiratory diseases. In a clinical randomized controlled trial[5], J ie Gao et al. found that warming acupuncture treatment could improve lung function, relieve clinical symptoms, and improve quality of life in patients with stable COPD, and its effect was similar to seretide (Salmeterol Xinafoate and Fluticasone Propionate Powder for Inhalation).

Acupuncture therapy has its unique advantages, so how to use acupuncture therapy to treat COPD will be the focus of research in the field of acupuncture therapy. In addition, the establishment of standardized standards for acupoint positioning in experimental animals is a necessary prerequisite for the modernization and internationalization of acupuncture and moxibustion discipline.

Conclusion

The research of acupuncture and moxibustion in the prevention and treatment of chronic obstructive pulmonary disease has developed rapidly. There is clear and reliable evidence to prove its efficacy from the aspects of mechanism research, animal experiments and clinical observation.

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PROGRESS IN TCM DIAGNOSIS AND TREATMENT OF CORONARY HEART DISEASE COMPLICATED WITH ANXIETY AND DEPRESSION

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Abstract. The incidence of coronary heart disease with anxiety and depression is increasing year by year. While the medical circles of various countries are stepping up their efforts to study the best diagnosis and treatment of coronary heart disease with anxiety and depression, TCM shows its unique advantages. Therefore, it collates the relevant articles on the treatment of coronary heart disease with anxiety and depression based on the theory of TCM in recent years, and summarizes it from the aspects of disease name, etiology and pathogenesis, syndrome differentiation, treatment and prescription, in order to provide ideas for clinical diagnosis and treatment.

Keywords: Chinese medicine; Coronary heart disease; anxiety; depression

The incidence of anxiety and depression associated with coronary heart disease is increasing year by year with increasing social stress and unhealthy lifestyles. An analysis of 486541 residents aged 30 years and 79 years old by the CKB project showed that the overall prevalence of severe depression was 0.61%. After a median follow-up of 7.2 years, patients with severe depression had a 32% increased risk of ischemic heart disease compared with the general population (HR=1.32,95%C1:1.15~1.53).

With the transformation from «biomedical model» to «bio-psycho-social medical model», «two-heart medicine» has been recognized by the medical circles all over the world. Its discipline concept coincides with the whole concept in the theoretical system of TCM, which not only explains the relationship between the physiological function

of «heart governs blood» and «mind governs God» from the point of view of modern medicine, but also with «depression caused by illness». The theory of «disease caused by depression» confirms each other.

Objective

Based on the theoretical system of TCM, this paper summarizes the disease name, etiology, pathogenesis, syndrome differentiation and treatment of coronary heart disease complicated with anxiety and depression..

Materials and methods

Through the CNKI, CQVIP, WANFANG-DATA and other platforms to collect and consult the literature in recent years, to study and sort out the above data, and summarize the disease name, etiology and pathogenesis, syndrome differentiation and treatment from the perspective of TCM.

Results and discussion

There is no name of coronary heart disease complicated with anxiety and depression in ancient medical literature. according to clinical practice and syndrome analysis, it can belong to the category of «chest arthralgia» and «depression syndrome» in TCM.

Combined with the theory of TCM and the clinical diagnosis and treatment experience of various schools of TCM in recent years, the incidence of anxiety and depression in coronary heart disease is closely related to emotional abnormality, improper diet, overfatigue, old age and deficiency of body, and its pathogenesis can be summarized as qi imbalance and cardiac obstruction. The location of the disease mostly involves the heart, liver and spleen.

In the 2017 edition of «expert consensus on Integrated traditional Chinese and Western Medicine for diagnosis and treatment of double Heart Disease», the syndrome types were classified as liver qi stagnation syndrome, heart blood stasis syndrome, phlegm fire disturbing heart syndrome, heart and kidney yang deficiency syndrome, heart and spleen deficiency syndrome and heart-kidney disharmony syndrome.

In recent years, many clinicians have used TCM to treat coronary heart disease with anxiety and depression from many angles and various treatments, and most of them have achieved good results. The common internal treatment methods are Yiqi Huoxue decoction, Xuefuzhuyu decoction, resolving phlegm and blood stasis, Gualou Xiebai Banxia decoction, warming Yang and turbid, Gualou Xiebai Banxia decoction, regulating qi and resolving phlegm, Wendan decoction, warming Yang and promoting blood circulation, nourishing heart and mind, Gualou Xiebai Banxia decoction and Yangxin decoction. External treatment includes acupuncture, moxibustion, massage, auricular point pressing, acupoint application, foot bathing and Bian therapy, etc. In addition, there are exercise therapy, emotional therapy and five-tone therapy.

In a word, the theoretical system of TCM has its unique advantages in the treatment of coronary heart disease complicated with anxiety and depression. A lot of literature evidence proves that there is a considerable prospect for the diagnosis and treatment of coronary heart disease complicated with anxiety and depression with TCM theory, which can provide ideas and reference for the future research and application of a more perfect diagnosis and treatment plan of integrated traditional Chinese and western medicine.

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A META-ANALYSIS OF SHENFU INJECTION FOR THE INTERVENTION OF POST-CARDIAC ARREST SYNDROME IN PIG ANIMAL MODELS

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Abstract. This study systematically evaluated the role of Shenfu Injection in the resuscitation pig model after cardiac arrest. In this meta-analysis, animal model pigs with similar coronary system and substance metabolism levels to humans were selected as the main research subjects. The SYRCLE tool was used to evaluate the quality of animal experimental design, and the experimental data was meta-analyzed to elucidate the pharmacological effects of Shenfu Injection on PCAS, And then achieve the transformation from animal experiments to clinical practice. We found that Shenfu Injection has the effect of improving hemodynamics and oxygen metabolism in animal models of cardiac arrest, clearing free radicals, improving energy metabolism, inhibiting inflammatory mediators, and reducing mitochondrial damage

Keywords: Post-cardiac arrest syndrome; Animal model; Shenfu injection; System evaluation;

Cardiac arrest (CA) is one of the main causes of death and disability in humans, and it is a cardiac mechanical activity suspension indicated by no signs of circulation. Post cardiac arrest syndrome (PCAS) is a multiple organ dysfunction that occurs after the recovery of autonomic circulation, and is the main risk factor affecting the survival of resuscitation patients after cardiac arrest.

At present, Western medicine treatment mainly focuses on cluster therapy, and simple Western medicine drug treatment is difficult to effectively address the multiple organ disorders of PCAS. Therefore, it is extremely necessary to actively seek new treatment methods under the existing diagnosis and treatment system. Shenfu injection has the advantages of multi link, multi pathway, and multi target treatment. As an auxiliary therapy, it has significant therapeutic effects on multiple organ widespread damage in PCAS.

Objective

Systematically evaluate the effectiveness of Shenfu injection (SFI) in the intervention of post cardiac arrest syndrome (PCAS) animal pig model, in order to improve the guiding value of animal experiments on clinical research, and promote the clinical Randomized controlled trial of SFI in the treatment of PCAS.

Materials and methods

Computer retrieval of databases such as VIP, cnki, pubmed, Embase, Wanfang, Cochrane Library, and inclusion of animal experiments with Shenfu Injection for treating post cardiac arrest syndrome. Quality evaluation was conducted using the SYRCLE animal experiment risk assessment tool provided by the SYRCLE Center, and statistical analysis was conducted using Revman 5.4.1 software

Results and discussion

Eleven articles were included, all in English, involving 310 experimental pigs. The quality of the literature was high and the risk of bias was low. The results of meta-analysis showed that the Cardiac output of the SFI treated group was increased by ROSC2h [WMD=0.32,95% CI=(0.25, 0.39), P<0.00001], ROSC6h [WMD=0.29,95%CI=(0.23, 0.35), P<0.00001] compared with the blank control group; Mean arterial pressure increased ROSC2h [WMD=17.14, 95%CI=(10.99, 23.29), P<0.00001], ROSC6h [WMD=11.82,95% CI=(6.69,16.95), P<0.00001]; Increased left ventricular maximum pressure increase/decrease rate ROSC2h[WMD=228.38,95%CI=(85.83, 370.92), P=0.002<0.05]/[WMD=343.65,95% CI=(175.93, 511.38), P<0.0001], ROSC4h [WMD=437.68,95% CI=(293.59, 581.77), P<0.00001]/[WMD=397.25,95% CI=(238.72, 555.77), P<0.00001], ROSC6h [WMD=493.55,95% CI=(78.92, 908.17)), P=0.02, 0.05]/ [WMD=399.30,95% CI=(176.96, 621.64), P=0.004. 0.05], It significantly reduced the number of shocks required to reach ROSC [WMD=-2.00,95% CI=(-3.03, -0.98), P=0.0001. 0.05], reduced the time required to reach ROSC [WMD=-3.15,95% CI=(-5.38, -0.93), P=0.006<0.05], and reduced serum Troponin ROSC2h [WMD=-1.57,95% CI=(-2.30, -0.84), P<0.0001], ROSC6h [WMD=-2.84, 95% CI=(-5.23, -0.46), P=0.02<0.05], Reduced lactate content ROSC0.5h [WMD=-1.96,95% CI=(-2.60, -1.33), P<0.00001], ROSC6h [WMD=-0.73,95% CI=(-0.99, -0.47), P<0.00001], increased myocardial tissue SOD value [WMD=10.49,95% CI=(8.05, 12.94), P<0.00001], significantly increased Na+-K+-ATPase value [WMD=1.01,95% CI=(0.72, 1.30), P<0.00001], and significantly increased Ca2+-ATPase value [WMD=1.66,95% CI=(1.16, 2.15), P<0.00001], reducing TNF- α The values [WMD=-5.06,95% CI=(-5.93, -4.19), P<0.00001] significantly reduced the IL-6 value [WMD=-54.41,95% CI=(-64.96, -43.86), P<0.00001].

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PROFESSOR XIE JINGRI'S EXPERIENCE IN TREATING GASTROESOPHAGEAL REFLUX DISEASE

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Abstract. To summarize the experience of Professor Xie Jingri in the treatment of gastroesophageal reflux disease (GERD). Professor Xie believes that the mood and diet are the two major causes of GERD. Insufficient endowment and weak spleen and stomach are the basis of the disease. Air machine lifting loss, gastric gas carrying acid is the core of GERD. The key to treatment is to adjust the liver and stomach qi machine and restore the function of the spleen and stomach. Therefore, to relieve the liver, spleen and stomach, acid and reverse through the abdomen as the treatment, with the prescription four stone depression decoction plus and minus treatment, the curative effect is remarkable.

Keywords: Gastroesophageal reflux disease;Traditional Chinese medicine ; syndrome differentiation; medical experience; Xie Jingri

Gastroesophageal reflux disease (gastroesophageal reflux disease, GERD) refers to a digestive system disease caused by acid reflux, heartburn and retrosternal pain reflux of gastric contents into the esophagus [1]. The incidence of GERD in China is about 2.5% -7.8%, and it is increasing year by year [2]. Western medicine mainly uses acid suppressors, mucosal protective agents and gastrointestinal motility drugs for symptomatic treatment, and the symptoms are easy to relapse after drug withdrawal, and long-term drug use is easy to produce drug resistance and many adverse reactions, leading to the extension of the disease for many years is common. The individualized treatment plan of TCM has outstanding advantages in reducing the clinical symptoms, promoting esophageal mucosal recovery and improving the long-term prognosis of patients, and has become an important way to treat GERD [3].

Objective

At present, GERD lacks standardized diagnosis and treatment worldwide. There are still some problems in the treatment of GERD by modern medical. China and Russia have a high incidence of GERD . This essay aims to explore the TCM mechanism and treatment strategy of GERD and summarize the experience of Professor Xie Jingri in the treatment of GERD .

Materials and methods

Through learning from teachers in the outpatient department, I collected and sorted out medical cases, and summarized the theoretical basis, syndrome differentiation characteristics and unique medication experience of Professor Xie Jingri in the treatment of gallstone disease.

Professor Xie believes that GERD is in the esophagus and stomach, but the disease is in the liver and spleen. The weakness of the spleen and stomach is the basis of the disease, and the mood and diet are the two major causes of the disease. The spleen and stomach is the sea of water and valley, and also the source of acid production. Whether it is the lack of physical endowment, fat and thick taste, alcohol, damage to the spleen and stomach, it can lead to the loss of spleen and stomach, water stagnation and coke, long accumulation, and paprophytic acid. Professor Xie thinks that liver qi stagnation, stomach qi on

reverse is the root of reflux. Today's people face the increasingly increasing work and study pressure, or thinking too much, or irritable, or depressed, many negative emotions are difficult to actively adjust, all can lead to liver qi stagnation, transverse stomach, stomach loss and decline, with acid on the reverse, to swallow acid. Modern medicine proves that the lower esophageal sphincter is once relaxed, and it is difficult to close normally, and it is the key cause that leads to the upward reflux of gastric contents, which belongs to the category of weak spleen and stomach, and decreased function in traditional Chinese medicine. Continuous anxiety and depression state is an important factor leading to the recurrent onset of symptoms in GERD patients, which is closely related to liver qi stagnation in traditional Chinese medicine.

Results and discussion

Professor Xie, with the strengths of ancient and modern doctors, believes that GERD is a disease mixed with deficiency and deficiency, which is based on the weakness of spleen and stomach, liver qi stagnation and stomach qi reverse. The key to treatment is to adjust the liver and stomach qi machine and restore the function of the spleen and stomach. According to the characteristics of GERD, Professor Xie takes the guiding ideology of «regulating and supplementing» as the guide, and «regulating» refers to the air regulating machine, that is, using three ways of liver qi, stomach qi, stomach qi, to normalize the whole body qi.»Supplement» refers to the tonifying of the spleen and stomach, the spleen and stomach are healthy, and orderly. The prescription is mainly to adjust the qi machine, supplement the spleen and stomach, and use medicine, in order to restore the normal physiological function of the liver, spleen and stomach, and effectively relieve the symptoms of gastroesophageal reflux.»Four stone depression soup» consists of bupleurum, citron, clove, persimmon, bitter fruit, black medicine, four stone, calcined sea octopus, calcined corrugated, calcined sea clam shell, Zhejiang fritillary), astragalus, whitening and other twelve medicines.

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EFFECT OF MAOXUCAO CAPSULE ON HYPERURICEMIA MODEL INDUCED BY POTASSIUM OXALATE

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Abstract. To innovate and develop Chinese medicine Maoxucao, develop Maoxucao capsule and study its efficacy. Methods A hyperuricemic model was established, and the serum uric acid values of SD rats were analyzed after 21 days of drug administration. Results There was significant difference in serum uric acid between the model group and the four groups. There was significant difference in serum uric acid value between allopurinol group and Maoxucao capsule group. Conclusion Maoxucao capsule has a good therapeutic effect on hyperuricemia.

Keywords: Orthosiphon stamineus Benth, Maoxucao Capsule, Hyperuricemia

Hyperuricemia is the disorder of purine metabolism and/or the decrease of uric acid excretion, which leads to the increase of serum uric acid as the main clinical manifestation. Long-term high level of uric acid can lead to many serious diseases such as hyperuricemia and gout. Nowadays, the incidence of hyperuricemia is increasing year by year. It is an effective preventive way to choose natural plants with little toxic and side effects to study drugs for reducing uric acid.

Orthosiphon stamineus Benth, formerly known as Shencha, is sweet and slightly bitter, belongs to the kidney meridian, and is a perennial herb of Labiatae, which is commonly used by Dai people. There are detailed records of its clinical application in Bayeux Sutra and Danghaya. It has the effects of clearing away damp-heat, removing calculus and treating stranguria. In modern research, Maoxucao

contains phenolic acids, terpenoids, flavonoids and other components, which has achieved fruitful results in reducing uric acid. For example, Fu Jingquan and others proved that Maoxucao capsule can reduce the uric acid level of hyperuricemia model mice through two acute hyperuricemia models. Our research group innovated the dosage form of Chinese traditional medicine Maoxucao, which was convenient to take and improved the content of active ingredients. Therefore, the efficacy of the capsule was tested to provide reference for clinical use and promotion.

Materials and methods

48 SD rats were randomly divided into two groups: blank control group (8 rats) and model group (40 rats). The hyperuricemia model was established by feeding with 10% yeast feed combined with 5% potassium oxazinate suspension. The control group was given the same dose of normal saline. Continuous modeling for 14d. The serum uric acid value of rats was measured, and the difference between the model group and the control group was significant ($P < 0.01$), and the difference between the urea nitrogen value was significant ($P < 0.01$). The model was successful and the drug administration experiment could be carried out.

The model rats were randomly divided into five groups: model group, allopurinol group, high dose group, middle dose group and low dose group, with 8 rats in each group. Among them, the allopurinol group was given allopurinol tablets, and the three dosage groups were given Maoxucao capsules. The model was established every morning, and allopurinol group, high dose group, middle dose group and low dose group were given orally in the afternoon. The dosage per 100g rats was: 240mg in the high-dose group; The middle dose group was given 120mg; The low dose group was given 60mg. The concentration of allopurinol solution was 6.25mg/mL, and 0.4mL was given to every 100g rats. Samples were taken after 21 days of continuous drug administration. Finally, the serum uric acid value of rats was measured to get the result. There was significant difference in serum uric acid between the control group and the model group. There was significant difference in serum uric acid value between the model group and the four groups. There was significant difference in serum uric acid between allopurinol group and Maoxucao capsule group ($P < 0.01$).

Results and discussion

Potassium oxazinate is an inhibitor of uric acid oxidase, which can improve uric acid level in vivo by inhibiting uric acid oxidation. In this study, the model was established by feeding potassium hydroxide into the stomach combined with 10% yeast feed. After 14 days of continuous modeling, the results proved that the model was successful and the experiment was reliable. After 21 days of administration, after analyzing the blood uric acid value of rats, it can be concluded that allopurinol and Maoxucao capsule have good therapeutic effects on hyperuricemia, and Maoxucao capsule has a stronger therapeutic effect on hyperuricemia. By proving the efficacy of Maoxucao capsule, the new application of traditional Chinese medicine Maoxucao has been initially realized, which lays the foundation for the next clinical application.

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RESEARCH PROGRESS OF ACUPUNCTURE COMBINED WITH CHINESE MEDICINE IN TREATMENT OF POLYCYSTIC OVARY SYNDROME HYPERANDROGENEMIA

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Abstract. Hyperandrogenism(HA) in polycystic ovary syndrome(PCOS) is clinically characterized by increased serum levels of biologically active androgens and can be accompanied by clinical signs of hyperandrogenism such as acne, hirsutism, seborrheic dermatitis, and alopecia. In recent years, traditional Chinese medicine(TCM) combined with acupuncture therapy has been increasingly applied in the treatment of reducing androgen in PCOS, and its efficacy is remarkable.

Keywords: Polycystic ovary syndrome(PCOS), Hyperandrogenism, combination of acupuncture and medicine, Research progress

Polycystic ovary syndrome (PCOS) is a common reproductive endocrine and metabolic disease in gynecological clinic, which is characterized by infrequent ovulation, polycystic ovarian changes and hyperandrogenism. It is common in the women of ageadolescent and childbearing [1]. Hyperandrogenism and insulin resistance are the main pathological features of PCOS, which cause reproductive endocrine disorders such as menstrual disorders, infertility, abnormal uterine bleeding, and metabolic diseases such as abnormal glucose and lipid metabolism, insulin resistance, thyroid dysfunction, metabolic syndrome, and greatly increase the risk of cardiovascular and cerebrovascular diseases, type 2 diabetes, and cancer in the long term [2].

Objective

This article elaborates the mechanism of the combination of acupuncture and medication in PCOS-HA, summarizes the clinical research status of the combination of acupuncture and medication, and provides basis and reference for the treatment research of PCOS-HA.

Materials and methods

The literature included in this study was obtained from CNKI and PubMed databases, the retrieval period was from 2012-1-1 to 2023-06-30, and the search strategy was {subject = «PCOS» and «HA»}. The literature related to the combined treatment of acupuncture and Chinese medicine was screened, and NoteExpress was used for literature management statistics. A total of 24 articles were included.

Results and discussion

According to the clinical symptoms, PCOS can be classified into the disease category of «late menstruation», «oligomenorrhea», «amenorrhea», «uterine bleeding», «infertility» and so on. The etiology and pathogenesis of this disease are based on the imbalance of qi, blood, Yin and Yang in the viscera and the interaction of phlegm dampness, blood stasis and heat. Due to the dysfunction of the kidney, liver and spleen, the qi machinery of the Zangfu organs is obstructed, the pathological products of phlegm dampness and blood stasis form in the body. The phlegm blocks the uterus, leading to menstrual disorder, infertility and other diseases. The syndrome of deficiency and excess is common in clinical practice. For patients of different ages, TCM adopts the method of staged treatment. For adolescent patients, the treatment focuses on restoring their normal menstrual cycle. For patients of childbearing age who have fertility requirements, the treatment should focus on menstruation regulation and assisted pregnancy. Even for those who have no fertility desire, treatment measures should be taken actively to prevent the long-term complications of PCOS.

Under the guidance of syndrome differentiation and treatment, the method of invigorating spleen, tonifying kidney and eliminating phlegm was used for treatment. Kidney deficiency is considered to be the root of PCOS. Modern pharmacological studies have shown that tonifying the kidney can effectively regulate the endocrine mechanism and regulate the hypothalamic axis pituitary ovarian axis (HPOA) function, so that the menstrual cycle tends to be normal, by regulating ovarian function, reducing serum testosterone(T) level, and reducing the clinical symptoms of hyperandrogenism [3]. At present, clinical acupuncture treatments mainly include simple acupuncture, electroacupuncture (EA) and acupuncture catgut embedding. It has been found that acupuncture can reduce the level of androgen in PCOS patients, regulate endocrine and metabolism, reduce the content of serum T, LH and anti-mullerian hormone (AMH), improve insulin sensitivity, and promote follicular development. Acupoint catgut embedding therapy has the effect of reducing androgen level and restoring menstruation. The acupoints such as Sanyinjiao, Liangmen, Guanyuan, Tianshu and Daimai are selected.

In conclusion, acupuncture combined with medicine is a common treatment for PCOS, and it has synergistic effect, which can significantly improve the clinical symptoms of patients with PCOS-HA. On this basis, targeted intervention with western drugs can improve the efficacy and alleviate the adverse reactions of western drugs [4]. However, there is still a lack of evaluation of treatment safety in the existing literature. In the future, we should focus on the use of evidence-based medicine to systematically evaluate the efficacy and safety of acupuncture and moxibustion in the treatment of PCOS, so as to give full play to the advantages and characteristics of traditional Chinese medicine and further optimize the treatment of PCOS.

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STUDY ON THE EFFICACY OF CYPERI RHIZOMA AND VINEGAR-PROCESSED CYPERI RHIZOMA IN PROMOTING BLOOD CIRCULATION AND REMOVING BLOOD STASIS

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Abstract. Cyperi Rhizoma mainly has the effect of soothing liver and relieving depression, regulating qi in broad. After being prepared with vinegar, it can enhance its efficacy. In this experiment, unpredictable chronic stimulation such as tail clamping, tail hanging, day and night reversal were used to replicate the blood stasis model of female rats, and different doses of Cyperi Rhizoma and vinegar-processed Cyperi Rhizoma were given to treat the blood stasis model. The pharmacodynamic difference of Cyperi Rhizoma and vinegar-processed Cyperi Rhizoma in promoting blood circulation and removing blood stasis was evaluated by analyzing the relevant indexes of hemorheology (whole blood viscosity, plasma viscosity, erythrocyte sedimentation rate, erythrocyte volume). The results showed that the whole blood viscosity, plasma viscosity, erythrocyte sedimentation rate and erythrocyte volume were significantly increased in the model group. After administration, the high dose group had the effect of significantly reducing whole blood viscosity, plasma viscosity and ESR, while the medium dose group could achieve the effect of significantly reducing whole blood viscosity, plasma viscosity and ESR. Vinegar-processed Cyperi Rhizoma may have the effect of enhancing incense and promoting blood circulation and removing blood stasis.

Keywords: Cyperi Rhizoma, vinegar-processed Cyperi Rhizoma

Cyperus rotundus L. is a plant of the genus Cyperus in the sedge family. Dried rhizomes [1], also known as balsam, sedge root, thunder head, tricolor grass, etc. [2], growing in the hillside wasteland grass or wet places near the water are widely distributed all over the world [3]. «Compendium of Materia Medica» records: «Cyperi Rhizoma Qi is flat and not cold, fragrant and can channeling, its taste of many xin can be scattered, slightly bitter can fall, and slightly Gan can be combined, is the general division of Qi disease, the head coach of female science» [4]. Modern clinical medicine has shown that Cyperi Rhizoma has the function of soothing liver depression, regulating qi and spreading middle, regulating menstrual flow and relieving pain . After being prepared with vinegar, it can enhance the effect of soothing liver and relieving pain . In this paper, the blood stasis model of rats was reproduced by external random stimulation and epinephrine hydrochloride to compare the pharmacodynamic difference of Cyperi Rhizoma and vinegar-processed Cyperi Rhizoma in promoting blood stasis.

Objective

To explore the pharmacodynamic activity of Cyperi Rhizoma and vinegar-processed Cyperi

Rhizoma in promoting blood circulation and removing blood stasis, and compare the pharmacodynamic difference before and after processing.

Materials and methods

In this experiment, unpredictable chronic stimulation such as tail clamping, tail hanging, day and night reversal were used to reproduce blood stasis model of female rats. The relevant indexes of hemorheology (whole blood viscosity, plasma viscosity, erythrocyte sedimentation rate, erythrocyte specific volume) were analyzed to evaluate the differences before and after administration.

Results and discussion

In this study, we used the classical external random stimulation modeling method and the blood stasis model induced by epinephrine hydrochloride to evaluate the pharmacodynamic activity of Cyrtophylla from multiple aspects, from the changes of the appearance of rats to various blood examination indexes, including whole blood viscosity, plasma viscosity and red blood cell aggregation index. The results showed that the high dose group of Cyperi Rhizoma can improve the blood stasis in the blood stasis rat model, and the medium dose of vinegar-processed Cyperi Rhizoma can achieve this effect. This experiment has proved that the processing technology has the effect of increasing efficiency and is worth inheriting.

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EFFECT OF TETRANDRINE HYDROGEL ON RHEUMATOID ARTHRITIS

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Abstract. It is recorded that tetrandrine has anti-inflammatory, analgesic and anti-rheumatic effects. As a non-toxic and degradable three-dimensional network gel, hydrogel can be used as a drug delivery carrier. This experiment will develop an ideal local drug sustained-release system and functional hydrogel dressing. Tetrandrine is loaded into it to achieve local administration and controlled release of the drug. When the temperature is raised to body temperature, it will become a gel. The morphology, properties and crystal structure of the obtained gel were analyzed, and the hydrogel was analyzed by swelling measurement. It is proved that it is non-toxic and has biological activity. The in vitro drug release, cytotoxicity and effect on rheumatoid arthritis of the hydrogel were evaluated in in vitro studies. It further provides a new idea and treatment for the clinical treatment of rheumatoid arthritis.

Keywords: Tetrandrine, Hydrogel, Rheumatoid arthritis

Objective

The hydrogel loaded with tetrandrine was characterized and the effect of relieving rheumatoid arthritis was alleviated.

Materials and methods

Chitosan, polyvinyl alcohol and sodium bicarbonate were used as the main materials to prepare hydrogels loaded with tetrandrine 0.5 mg/mL, 1 mg/mL and 2 mg/mL by physical crosslinking method. The structure and properties of tetrandrine hydrogels loaded with 0.5 mg/mL, 1 mg/mL and 2 mg/mL were characterized and investigated in vitro.

Results and discussion

The formation of gel was judged by tube inversion method. The loaded tetrandrine hydrogel was placed in a constant temperature water bath at 37 °C, inverted, and did not flow every 30 s, indicating the formation of the gel. Tetrandrine loaded 0.5 mg/mL, 1mg/mL, 2 mg/mL hydrogels were prepared, which were liquid at 4 °C and solid at 37 °C, realizing the transition from sol state to gel state. Through the infrared detection of the loaded tetrandrine hydrogel, it was found that the absorption peak of O-H at 3437 disappeared, and

the peak moved from 3437 to 3417, indicating that hydrogen bonds may be involved in the gel process. The performance characterization of the loaded tetrandrine hydrogel showed that the hydrogel had good needle penetration and could be used as an injection. At the same time, the loaded tetrandrine hydrogel swelled in 5 mL buffer solution, and was taken out every 2 h. The water on the surface was removed by filter paper, weighed, and the swelling rate was calculated. It was found that the swelling rate of the hydrogel loaded with tetrandrine was as high as 400 % in the first 4 h. With the increase of time, the swelling rate of the loaded tetrandrine hydrogel gradually increased until the swelling equilibrium was reached at 24 h. The in vitro results showed that the hydrogels loaded with tetrandrine hydrogel had no obvious toxicity to human fibroblast synovial cells. Loading tetrandrine has the effect of alleviating rheumatoid arthritis. The treatment of rheumatoid arthritis mainly includes physical therapy and oral drug therapy. It is very important to develop a new dosage form that can be used for injection and increase drug release time. Tetrandrine has anti-inflammatory, analgesic and anti-rheumatic effects. Hydrogel, as a carrier, enables the slow release of tetrandrine to prolong the efficacy while also increasing the lubrication of the joint. This will play a greater role in the role of tetrandrine, so as to achieve a better treatment of rheumatoid arthritis.

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STUDY ON THE MECHANISM OF AQUEOUS EXTRACT OF SEEDS OF *PHARBITIS NIL* (L.) CHOISY IN THE TREATMENT OF NEPHROTIC SYNDROME BASED ON METABOLOMICS

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Abstract. To explore the mechanism of Aqueous Extract of Seeds of Pharbitis nil (L.) Choisy (PNAE) on adriamycin-induced nephrotic syndrome in rats based on metabolomics. UPLC-QTOF-MS combined with pattern recognition method was used to study the changes of small molecular metabolites in serum of rats with nephrotic syndrome, and to explore the related metabolic pathway and mechanism. The results showed that 48 differential metabolites of PNAE in NS rats were screened by serum metabolomics, including lipid metabolism such as linoleic acid metabolism, linolenic acid metabolism, arachidonic acid metabolism and glycerol phospholipid metabolism. In addition, it also affected retrograde nerve signal, choline metabolism and autophagy, which had a good therapeutic effect on metabolic disorder in rats with adriamycin-induced nephrotic syndrome. Regulation of amino acid metabolism, lipid metabolism and digestive system, regulation of body immunity may be the mechanism of PNAE on nephrotic syndrome.

Keyword: *Pharbitis nil* (L.) Choisy seeds; Nephrotic syndrome; Metabolomics

Nephrotic syndrome (NS) is a disease with complex pathogenicity and multiple pathological types, which is characterized by massive proteinuria and hypoproteinemia.Compared with modern drugs, traditional Chinese medicine has some special advantages in the treatment of NS, especially in reducing the side effects of albuminuria and immunosuppressive drugs, as well as in reducing the complications of hypercoagulability or gastrointestinal mucosal edema.

Objective

In this study, the rat model of nephrotic syndrome induced by doxorubicin hydrochloride was used to analyze the metabolic characteristics

of PNAE in the treatment of nephrotic syndrome based on metabonomics technology, in order to further explore its mechanism [1,2].

Materials and methods

SPF male SD rats were injected with adriamycin hydrochloride (7.5mg/kg) into the tail vein to make the model. One week after the establishment of the model, the PNAE group was given the same dose of drug (0.648g/kg) daily for 3 weeks. After 3 weeks, The blood of rat abdominal aorta was collected and centrifuged with 3500rpm for 10 minutes.

The sample was placed in a liquid phase vial for UPLC-Q-TOF/MS analysis. Then, principle component analysis (PCA) was carried out for the dates and a list of the mass and retention time pairs with corresponding significance values, using the SIMCA-P software, along with partial least squares discriminant analysis (PLS-DA). At the same time, the metabolic pathways related to adriamycin rats were obtained with the help of KEGG, HMDB, SMPDB, the biological significance of biomarkers was explained.

Results and discussion

The data were analyzed by PCA and OPLS-DA, and the results showed that there were obvious differences in metabolic profiles between the control group and the model group, indicating that the NS model was successful. After giving the PNAE, the separation between the administration group and the model group was obvious, and there was a tendency to call back to the control group, indicating that the PNAE has a better therapeutic effect on the NS model and significantly improved the metabolic disorder in the NS model.

The first five qualitative metabolites were selected according to P value and marked in the chart. Compared with the control group, the model group significantly increased 54 differential metabolites and down-regulated 107 differential metabolites. There were 31 differential metabolites annotated to KEGG, which were classified into 12 categories. Compared with the model group, the PNAE group significantly up-regulated 25 differential metabolites and down-regulated 23 differential metabolites. 9 differential metabolites of KEGG were annotated, which were classified into three categories: glycerolipids, phenols, steroids and steroid derivatives.

Through KEGG enrichment analysis and the reflection of differential metabolites in KEGG pathway map, it was shown that the model group could down-regulate L-tryptophan, androsterone glucuronide, cholic acid, p-cresol, moxifloxacin, homovanillic acid, phosphatidic acid and so on. Compared with the model group, the aqueous extract of Petunia mandshurica could up-regulate phosphatidylcholine, phosphatidylethanolamine (22:2/P-18:1) and p-cresol, and down-regulate α-acylglycerol phosphate choline and hydroxypregnenolone.

Based on metabolomics, it was found that the renal protective effect of morning glory was related to linoleic acid metabolism, linolenic acid metabolism, arachidonic acid metabolism, inverse nerve signal, choline metabolism in cancer pathway, which can restore disordered metabolites. Improving glomerular filtration rate, restoring renal function, reducing the content of protein in urine, regulating lipid metabolism, protecting membrane structure and affecting cell transport may be the mechanism of Petunia chinensis in the treatment of nephrotic syndrome.

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CHEMICAL AND METABOLIC ANALYSIS OF TWO TYPICAL SAPONINS FROM CAULOPHYLLUM ROBUSTUM MAXIM IN FIBROBLAST-LIKE SYNOVIOCYTES BY UHPLC-Q-EXACTIVE-PLUS-ORBITRAP-MS

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Abstract. Caulophyllum robustum Maxim (C. robustum) is a famous traditional Chinese medicine (TCM), which was widely used for the treatment of Rheumatoid arthritis (RA). Modern pharmacological studies have shown that saponins are the main material basis in C. robustum, of which Cauloside C, Cauloside G are typical representatives. Although they are known to be able to enter the bloodstream as prototypes, metabolites and sapogenins, the biotransformation in Fibroblast-like synoviocytes (FLS) is not well understood. A method was used to rapidly identify the prototypes and metabolites of C. robustum saponins in FLS, and to explore the metabolic pathways of C. robustum saponins.

Keywords: Caulophyllum robustum Maxim, saponins, Cauloside G, Metabolic profile

Rheumatoid arthritis (RA) is a disease characterized by swelling of the synovial membrane of the joints, and the target tissue is the synovium. Fibroblast-like synoviocytes are a major player in RA synovial inflammation [1].Saponins have received extensive attention because of their obvious anti-inflammatory activities [2].Caulophyllum robustum Maxim (C.robustum) is a folk medicine for RA in China. The content of saponins in the C. robustum extract is as high as 15.11%, of which Cauloside C, Cauloside G are typical representatives in the treatment of RA. In recent years, research on the absorption and biotransformation of saponins in vivo has become a hot field. So, We have studied on the metabolization of total saponins from C.robustum in vivo [3]. However, what changes will occur in the monomer saponin components of C.robustum in the lesion site of RA is a question of concern to us.

Objective

This study aimed to analyze the degradation and transformation process of C.robustum saponins in the target cells, further to provide scientific information for the discovery of new medicinal components.

Materials and methods

Mouse L929 fibroblasts were used in this experiment.The experimental groups was given 100 μM Cauloside C, Cauloside G, respectively. and the blank groups was cultured normally, were incubated at 37 °C under 5% CO2.Cells were counted after 2 h of culture. Wash off the medium three times. Discard PBS and add 1.5 ml of pre-chilled solvent for cell quenching, use a cell scraper to scrape off the adherent cells. Place the T25 cell culture flask in a -20 °C refrigerator for 30min, vortex for 2 min, 12000 r, centrifuge in a refrigerated centrifuge at 4 °C for 15 min, and all cell metabolite samples were stored at -80 °C before analysis.

Results and discussion

The study found that the possible metabolic pathways of saponins in FLS are mainly the phase I reactions of deglycosylation, oxidation, demethylation, deoxygenation and deacidification, and the phase II reactions of sulfation, phosphorylation and acetylation. Among them, the deglycosylation reaction is the most important metabolic pathway. In the deglycosylation reaction, we found that saponins with different sugar chain structures of the same type can be converted into each other in the cell. In conclusion, the results showed that the saponins of C. robustum might be transformed into various metabolites at the cellular level, which further clarified the action pathway of C. robustum saponins.

The metabolic behavior of the saponins of Caulophyllum robustum Maxim in target cells was studied for the first time. The results showed that the saponins of C. robustum can be converted into a variety of metabolites by the action of FLS, deglycosylation, deacidification, deoxygenation, demethylation, oxidation, sulfation, phosphorylation, hydrogenation, and acetylation reactions might be involved in the transformation of C. robustum saponins in target cells. Notably, saponins with different sugar chain structures of the same kind can be interconverted within the target cells. The results of this study are important to further clarify the pathways of action of the saponins of C. robustum .

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EVALUATION OF CHRONIC FATIGUE SYNDROME ANIMAL MODELS

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Abstract. Evaluate the Chronic fatigue syndrome (CFS) animal model established by the improved chronic fatigue multifactorial complex stress stimulation method. Methods: The improved chronic fatigue multifactorial complex stress stimulation method was used to create models for 21 days. After modeling, the effects of modeling on rats with CFS were evaluated through general semi quantitative scoring, Morris water maze, open field experiment, exhausted running time. Results: After modeling, the general semi quantitative scoring of the modeling group was significantly higher than that of the control group (P<0.05), the escape latency was prolonged (P<0.05), the number of crossing platforms was reduced (P<0.05), the number of crossing grids and entering the central area was increased (P<0.05), and the exhausted running time was shortened (P<0.05). Conclusion The rats showed fatigue and decreased spatial learning and memory ability after 21 days of modeling with improved chronic fatigue multifactorial complex stress stimulation method.

Keywords: chronic fatigue syndrome; improved chronic fatigue multifactorial complex stress stimulation method; model evaluation; Morris water maze test; open field experiment; exhaustion treadmill time test

CFS is a complex multi system disease that can lead to debilitating symptoms, including severe fatigue, post exercise discomfort, insufficient sleep and impairment [1]. The incidence rate of this disease is increasing year by year [2]. This study used an improved chronic fatigue multifactorial complex stress stimulation method to prepare a CFS rat model, and evaluated the effectiveness of the modeling method through comprehensive fatigue evaluation, behavioral evaluation, and pathological results.

Objective

To evaluate the CFS animal model established by the improved chronic fatigue multifactorial complex stress stimulation method.

Materials and methods

18 male SD rats, adaptive breeding for 1 week, with free diet and drinking water. On the fourth day of adaptive feeding, a three-day adaptive running was started, and on the seventh day of adaptive feeding, Progressive aspect were measured for body mass, open field experiment and exhaustive running time test. After removing the rats with large differences, they were randomly divided into 9 rats in the control group and 9 rats in the model group. A CFS impairment rat model was established using an improved chronic fatigue multifactorial complex stress method. Four stimuli were administered daily, including sleep deprivation, treadmill training, restraint stress, and crowded environment, for 21 consecutive days. After modeling, rats were subjected to general condition scoring, Morris water maze test, open field experiment, and exhaustion treadmill time test. After the behavioral test, strip the hippocampus.

Results and discussion

General semi quantitative score: Before modeling, the health status of each group of rats was good, and the general semi quantitative score was 0 points; after the completion of modeling, the semi quantitative score of the general situation of the model group rats significantly increased (P<0.05). Morris water maze: the escape latency of the model group rats was longer than that of the control group (P<0.05); the number of times the model group rats crossed the platform was lower than the control group (P<0.05). Open field experiment: before modeling, there was no statistically significant difference in the number of times the rats crossed the grid and entered the central area in each group; after modeling, the number of times the model

group rats penetrated and entered the central area was significantly higher than the control group and before modeling (P<0.05). Exhaustive treadmill time: Before modeling, there was no statistically significant difference in the exhaustion treadmill time of each group of rats; after modeling, the exhaustion running time of the model group rats was shorter than that of the control group and before modeling (P<0.05).

This study used an improved chronic fatigue multifactorial composite stress stimulation method to prepare a CFS rat model. The modeling effect was evaluated using general semi quantitative scoring, water maze test, exhaustion treadmill time and open field test. The improved chronic fatigue multi factor composite stress stimulation method is based on the original «chronic fatigue multi factor composite stress stimulation method» and the latest literature research results. Among them, the modified multi platform sleep deprivation method replaces previous noise interference [3], and treadmill training, restraint stress, and crowded environment continue to be studied from previous studies. This study confirms the effectiveness of establishing a CFS impairment rat model using an improved chronic fatigue multifactor complex stress method.

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BASED ON «LIVER DEPRESSION CAUSING GALL» TO EXPLORE THE CORRELATION BETWEEN FEMALE THYROID NODULES AND ANXIETY AND DEPRESSION

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Abstract. This paper introduces the results of a questionnaire survey on female patients with thyroid nodules in the second Department of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine. It is found that female patients with thyroid nodules are often accompanied by anxiety and depression. Thyroid nodules are significantly correlated with the occurrence of anxiety and depression, and are closely related to symptoms of liver depression.

Keywords: liver depression induced gall, thyroid nodule, depression, anxiety, correlation

Thyroid nodule (TN) refers to the scattered single or multiple lesions caused by the abnormal growth of thyroid cells, which are more common in women and elderly people. The detection rate by palpation in the general population is 3% to 7%. The prevalence rate of thyroid nodules obtained by high-resolution ultrasound is 20%-76%, among which 7%-15% of thyroid nodules are malignant lesions [1].Among them, some benign nodules are only followed up and observed regularly by Western medicine, and there is no targeted treatment [2]. With the high incidence of thyroid nodules, domestic and foreign scholars have found that anxiety and depression are the most common negative emotions [3]. Traditional Chinese medicine is mostly blamed on the liver depression, as evidenced by the fact that «Sorrow and resentment are increasing day by day and cannot be alleviated... This disease is more common in women because there is more Sorrow and resentment than in men» and «The formation of gall disease is due to people's anxiety, often rebellious aspirations, and accumulation. Therefore, exploring the correlation between the characteristics of female thyroid nodules and anxiety and depression based on «liver depression causing gall» is helpful for subsequent accurate treatment.

Objective

To evaluate the relationship between thyroid nodules and anxiety and depression in women in this region, so as to confirm the scientific nature of «liver depression causing gall» to improve the pathogenic factors of thyroid nodules and provide the basis for subsequent accurate treatment.

Materials and methods

In this study, a questionnaire survey was used to collect 366 female patients with thyroid nodules from the thyroid clinic of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine from August to December 2022. Use cross-sectional survey methods. Fill in the general situation questionnaire, self-rating Anxiety Scale (SAS), self-rating Depression Scale (SDS) and Chinese Medicine Symptoms and Signs questionnaire respectively. These information were integrated into EXCEL data database, coded one by one for sorting, statistical software was used for data analysis, and statistical methods such as Spearman correlation analysis and multi-factor Logistic regression analysis were used for analysis to obtain relevant conclusions.

Results and discussion

In this study, the detection rate of anxiety and depression was 50.5% and 54.6% in patients with thyroid nodules. Spearman correlation analysis showed that nodule size was positively correlated with anxiety degree ($r=0.223$, $P<0.05$) and depression degree ($r=0.366$, $P<0.05$). Breast tenderness, sighing, bitter mouth and pulse were correlated with depression and anxiety ($P<0.05$). Anxiety ($B=1.731$, $P=0.002$, $OR=5.644$) and depression ($B=0.717$, $P=0.037$, $OR=2.048$) were risk factors for thyroid nodules.

In summary, female thyroid nodule patients are often accompanied by anxiety and depression, and is closely related to «liver depression» symptoms. The larger the nodule, the more serious the anxiety and depression. The theory of «liver depression causing gall» has guiding significance for female patients with thyroid nodules, and precise symptoms are of great significance for standardized clinical treatment. In addition, attention should be paid to identifying anxiety and depression as risk factors, and combining symptoms to reduce the risk of thyroid nodules formation in women.

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ANALYSIS OF PROFESSOR XIE JINGRI'S EXPERIENCE IN TREATING EPIGASTRIC PAIN SYNDROME BASED ON TONGUE AND PULSE

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Abstract. Epigastric pain syndrome is a functional gastrointestinal disease caused by spleen deficiencyand qi stagnation and stomach disorder, which can be classified as «stomach duct pain» in Traditional Chinese Medicine. The disease is closely related to the three viscera of liver, spleen and stomach. The spleen is the source of the disease, the stomach is the place of the disease, and the liver is the aid of the disease. Tongue and pulse are important objects in TCM diagnosis. The tongue image is the reflection of the essence of disease, and the pulse image is the proof of the changes of Qi, blood and Yin and Yang of viscera organs. According to the dialectical relationship between tongue and pulse, liver and spleen, Professor Xie Jingri classified tongue and pulse and treated liver and spleen.

Keywords: Tongue and Pulse Theory, Functional Dyspepsia, Epigastric Pain Syndrome, Syndrome Differentiation and Classification, Famous Doctor Experience

Functional dyspepsia is a group of common, non-organic clinical syndromes mainly characterized by gastrointestinal dysfunction, which can be divided into two subtypes: Epigastric pain syndrome (EPS) and postprandial distress syndrome (PDS) according to Rome IV diagnostic criteria. The diagnosis of EPS mainly depends on upper abdominal pain and burning sensation. Clinically, the diagnosis of EPS requires examination to exclude organic diseases, etc. At the same time, due to its characteristics of high incidence and high recurrence rate, these two factors often increase patients' unnecessary medical

expenditure and bring anxiety and depression. Western medicine clinical treatment of EPS is still «four therapies» as the first-line choice, including eradication of Helicobacter pylori, acid suppression therapy, gastric motivity, anti-depression treatment, by relieving clinical symptoms to eliminate patients' pain, reduce psychological pressure. Single Western medicine treatment can not cure EPS, traditional Chinese medicine in the treatment of the disease has its own style, to relieve the symptoms of the existing symptoms, to prevent structural lesions, heal the body and regulate the patient's physique, comfortable anxiety and depression, that is, to take into account the specimen, physical and mental treatment.

Objective

To summarize Professor Xie Jingri's experience in distinguishing and treating epigastric pain syndrome, in order to explain the basis and clinical application of «tongue and pulse theory».

Materials and methods

Through the outpatient study with Professor Xie, the outpatient cases were collected, sorted out and analyzed, and the relevant literature of epigastric pain in traditional Chinese medicine and epigastric pain syndrome in modern medicine was consulted, and the experience of Professor Xie Jingri in treating epigastric pain syndrome was summarized.

Results and discussion

Professor Xie Jingri believes that the evolution of EPS can be divided into three stages: the initial stage is dominated by excess, the intermediate stage is mixed with excess and weak, and the final stage is dominated by weak. Therefore, the common diet stagnation syndrome and liver and stomach disharmony syndrome in the early stage of the disease; In the middle stage, spleen and stomach dampness-heat syndrome and stasis syndrome of blood stasis were observed. Weakness of the spleen and stomach was found in the late stage. The three stages are divided according to the change of the tongue and pulse, the beginning of the disease, the evil air is attached to the tongue, the fur is varied and the quality is not obvious, the common tongue coating is thick and greasy or thin white, even the edge of the white saliva, the tongue is light red as usual, the pulse is mainly solid, or slippery or string; Disease in the moss quality is clear, the moss to see thick turbidiousness, yellow or white, for the evil house surface is not net, quality red fat big, even purple dark, veins tortuosity, evil invasion in chaos, pulse see number and potential change, weak and solid mixed, fine astringent knot generation; At the end of the end of the moss withered, Yin and Yang decay, qi is difficult to cover, thin as a mirror, thin thin body, internal and external consumption, blood is difficult to fill, weak pulse, with Yin and Yang fractions slow. In view of the above characteristics of tongue and pulse syndrome, Professor Xie Jingri established the diagnosis and treatment ideas from the liver and spleen, spleen as the source of the disease, weak temper as the root cause of the disease, the treatment should supplement its deficiency, strengthening spleen and supplementing qi to correct; The liver is the aid of the disease, and the liver loss is the moving factor of the disease. When the liver is damaged, the liver regulating qi can relieve depression. The stomach is the place of the disease, and the stomach disharmony is the beginning sign of the disease. When the qi machine is smooth and the stomach is ventilated to relieve pain, the treatment of EPS is condensed into three methods: «tonifying the spleen», «regulating the liver» and «tonifying the stomach».

Professor Xie Jingri's clinical treatment advocates distinguishing tongue and pulse for cause, tracing the liver and spleen for root, advocating human legislation, forming prescription by law, dispensing medicine with prescription, adding and subtracting with syndrome, which has achieved good clinical results.

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XIE JINGRI'S EXPERIENCE IN TREATING BARRETT'S ESOPHAGUS FROM THE PERSPECTIVE OF YU

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Abstract. Professor Xie Jingri believes that Barrett's esophagus (BE) should be treated from the perspective of «yu», including qi, heat, phlegm and stasis, which have their own focus at different stages of the disease, with qi stagnation being the primary cause. The «yu» spreads to the oesophagus with heat and fire, eroding the mucous membrane and forming stasis of blood, and in the treatment of BE, «opening up yu» is the basic method, and the treatment of suppressing acidity and relieving pain runs through the whole process. Professor Xie selects his prescriptions according to the focus of the patient's stagnation, and the clinical results are excellent.

Keywords: Barrett's esophagus; yu; Xie Jingri; famous doctor experience; traditional Chinese medicine

Barrett's esophagus (BE) typically presents with normal squamous epithelium at the distal esophagus to columnar epithelium of the intestine, a type of precancerous lesion that affects approximately 1 percent of people worldwide, and approximately 3 to 5 percent of BE patients eventually develop esophageal malignant adenomas [1].

From the perspective of clinical symptoms, BE can belong to the categories of «acid reflux» and «choking» in Chinese medicine. Professor Xie concluded in the clinical evidence that «yu» is the main cause of BE, while modern people mainly focus on «qi stagnation «, and for the first time proposed that the treatment of BE should be «open yu», which refers to the method of qi, clearing heat, dissolving phlegm and eliminating blood, and regulating the internal environment of the stomach as a whole; Symptomatic use of acid and analgesic drugs to reduce the damage of digestive juices to the esophagus and prevent further damage to the mucosa; identify the focus of «yu» at each stage and use the drug in stages. Professor Xie Jingri is a national old Chinese medicine expert academic experience inheritance work instructor, doctoral supervisor, and has accumulated a lot of valuable experience in the treatment of BE in more than 40 years of clinical practice. This study focuses on the role of «yu» in the occurrence and development of BE, and elaborates on Professor Xie's ideas and medications for the treatment of this disease.

1 Qi stagnation is the head, and the liver and gallbladder are humid and hot in the stomach

Liver Qi stagnation is the primary cause of BE, leakage disorder impairs the normal metabolism of qi, blood and fluid, and inflammation of qi, sputum and heat enters BE in the esophagus; The liver and gallbladder belong to the same oligoyang, and the operation of bile also depends on the excretory function of the liver. Professor Xie often said that «the treatment of acid reflux must ensure smooth stool», and the pathogenesis of Qi stagnation and acid reflux is the same, so the treatment should not only adjust the movement of qi, but also exhaust. The lungs and large intestine belong to the hand table and are the key to the connection between the upper and lower focuses, so attention should be paid to keeping the patient's stool smooth during diagnosis and treatment.

2 Qi, heat, phlegm, stasis cementation and medium focus, Jing gradually decreases, false evidence and empirical evidence coexist

If BE does not intervene in time in the early stage, heat will consume fluid, phlegm will block the veins, blood flow will be poor, and phlegm heat stasis will be formed. Depending on the patient's constitution and course of the disease, the four types of «yu» have their own focus. Sputum is an abnormal metabolite subtly produced by the water valley in the body, if qi, heat, phlegm, stasis are not removed for a long time, the body does not get nutrients, and gradually becomes a deficiency of qi and yin. At this time, «yu» does not completely subside, and the patient mainly shows the coexistence of false evidence and empirical evidence, and is mainly empirical. Yin and yang benefit each other, and over time, yin deficiency will inevitably hurt yang, forming hot and cold miscellaneous evidence. Professor Xie believes that Xin Wen can promote qi, bitter cold can clear heat, sweet medicine can treat the spleen and stomach, can adjust the focus, can not only relieve the strength of hard medicine, but also replenish spleen and stomach deficiency, which is a reference to Li Dongyuan's treatment of spleen and stomach diseases «mainly sweet medicine, bitter medicine as an auxiliary treatment of diseases».

3 Suppress acid and pain throughout the process, add antipyretics and detoxifiers in a timely manner

The root cause of BE is abnormal repair after mucosal destruction, and gastric acid is the most

important cause. Professor Xie often uses calcined shells and ores to suppress acid and pain. In BE patients, if mucosal biopsy shows intestinal metaplasia, it means that the disease has developed to a more serious stage, at this time it is necessary to intervene in the lesion to prevent deterioration, at this time, warm spleen strengthening drugs can be used to regulate spleen and stomach function, improve the gastric environment, and then consider administering the above drugs after its function is improved.

4 Summary

Professor Xie Jingri treats BE with «open yu» as the basic method, suppressing acid and pain throughout the whole process, focusing on different prescriptions according to the patient's qi stagnation, heat yu, phlegm yu and blood stasis, adding and subtracting with symptoms, and obtaining good results in clinical treatment. In addition, Professor Xie pays attention to life care while taking medication, guiding patients to change bad living habits and fundamentally prevent and treat diseases.

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PROFESSOR XIE JINGRI'S EXPERIENCE IN THE TREATMENT OF ULCERATIVE COLITIS BASED ON THE THEORY OF «NO STAGNATION, NO ULCER»

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Abstract. Summary of Professor Xie Jingri's academic experience in the treatment of ulcerative colitis (UC) based on the theory of "no stagnation, no ulcer". Professor Xie believes that the pathogenesis of UC involves stagnation of qi and blood, accumulation of damp-heat, tissue erosion by putrefaction, and intestinal stagnation leading to ulceration. He proposes that for those without stasis, regulate qi, while for those with stasis, regulate the blood. The treatment focuses on promoting the smooth flow of qi, regulating liver and spleen functions, clearing heat and dampness, resolving stasis, and facilitating bowel movements. Both the root cause and the symptoms are considered, aiming to repair damaged mucosa and restore normal physiological function of the organs.

Keywords: No stagnation, No ulcer; Ulcerative Colitis; blood stasis; experience of famous doctors; Xie Jingri

The main pathological features of ulcerative colitis are erosive ulcers of the mucosa and submucosa of the rectum and sigmoid colon. The clinical manifestations are recurrent diarrhea, abdominal pain, mucopurulent and hematochezia, alternating attacks and relief. Medicine treatment is aminosalicylic acid, glucocorticoids, immunomodulators, biological agents and other drugs, which have a certain effect on controlling the disease and improving the quality of life of patients, but side effects such as opportunistic infections. Traditional Chinese medicine has the characteristics of dialectical treatment, and has achieved certain results in treatment from multiple angles and multiple organs.

Objective

Summary Professor Xie Jingri's experience in the treatment of UC based on the theory of "No stagnation, No ulcer", in order to provide ideas for the clinical diagnosis and treatment of UC.

Materials and methods

Professor Xie believes that the occurrence of ulcer is closely related to stagnation, the so-called "No stagnation, no ulcer". The stagnation is the important pathogenesis of UC, with qi and blood stagnation, heat and dampness agglomeration. The depression occurs in the intestinal, with the accumulation of waste, making intestinal mucosa ulcer. He considers that in the process of the occurrence and development of UC, qi depression is the first cause of disease, dampness depression is the gradual pathogenesis of disease, blood stasis is the change of disease. Dampness and phlegm depression are cemented, food depression is in the stomach and intestines, depression turns fire into heat, and finally the intestinal membrane ulcerates, with mucus, pus and blood mixing with feces. He supposes that the manifestations are mostly functional changes, if the main pathogenesis is only qi depression. If the pathogenesis changes into dampness and blood depression, with mucus

and pus in the stool, the manifestations in the colonoscopy changes. If the stagnation is removed, pathogens no longer invade the body and cause diseases. During the course of UC, blood stasis is the key points of all the pathogens. He proposed that for those without stasis, regulate qi, while for those with stasis, regulate the blood. The use of diuresis to remove dampness, clearing heat and removing toxins, activating blood circulation and removing blood stasis, and passing through the intestines and bowels to eliminate the cause of the disease.

Results and discussion

Professor Xie treats the qi depression as the first therapy, using the method of soothing liver and resolving depression. He uses qi-supplmenting formula to invigorate qi in order that qi transform in the meridian and collaterals, when the patients have qi deficiency manifestation.

He always said that the recovery of spleen and stomach functions focuses on transportation rather than blindly taking supplements. And he proposes the treatment rule of "adjustments instead of supplements", strengthening the spleen, transporting the spleen, awakening the spleen, and managing the spleen at the same time, so as to restore the normal transport function of the spleen and stomach to promote the elimination of dampness. There are also three methods: aromatic for resolving dampness, removing dampness and promoting urination, dampness-drying. These three methods are used in conjunction with three methods of treating the spleen and stomach.

He believes that blood stasis is one of the signs of pathological changes in pus and bloody stool. If old blood is not removed, new blood is difficult to regenerate. He puts forward activating blood and stop dysentery formula (Huo Xue Zhi Li Tang) to activate blood stasis to remove blood stasis and regulate qi and blood to produce new blood.

He supposes that intestinal depression is an objective manifestation of the accumulation of a variety of pathological products in the intestines, and the accumulation of turbidity and toxins accumulates in the intestines, damaging the intestinal membrane. He uses the treatment of purging method to remove the indigestion in the intestines, in order to recover the intestinal mucosa.

In the treatment of UC, flexible use of the above methods often obtains good clinical results.

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PROGRESS IN CLINICAL APPLICATION OF SALVIA MILTIORRHIZA PREPARATIONS

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Abstract. Salvia miltiorrhiza is one of the traditional Chinese herbs with a long history of use, has been studied in depth, and shown to have efficacy in the treatment of numerous diseases. This article reviews the clinical applications of Salvia miltiorrhiza. Literature involving Danshen was collected from online scientific databases including China National Knowledge Infrastructure, PubMed, Web of Science, and Google Scholar up to April 2022. It provides the direction for the future research of Danshen preparations.

Keywords: Salvia miltiorrhiza, CDDP,Clinical application, preparations

As a traditional Chinese medicine, Salvia miltiorrhiza is often used in clinical medicine in the form of compatibility, preparation, or combination, which can adapt to medical needs and better play its curative effect. This paper summarized the current research results, pointed out some typical problems, and provided some suggestions for promoting the development of Salvia miltiorrhiza.

Objective

This article mainly reviews the mechanism of action and clinical application of Danshen, aiming to provide reference for clinical application and research and development of Danshen related products.

Materials and methods

By July 2023, China National Knowledge

Infrastructure (CNKI) has collected, analyzed, and summarized the research on PDCD treatment based on TCM theory in the past five years.

Results and discussion

Compound Danshen dripping pill (CDDP) is a well-known Chinese patent medicine, which is commonly used for the treatment of coronary heart disease (CHD) in China. A trial involving 128 patients with coronary heart disease showed that CDDP (10 tablets, 3 times per day) combined with atorvastatin calcium (15 mg, once per day) had a significant clinical effect after 3 months of treatment, which could effectively reduce the levels of serum endothelin and cellular adhesion factor, and improve the indicators of cardiac functio. Percutaneous coronary intervention (PCI) is an important method for the treatment of coronary atherosclerotic heart disease, which is associated with certain risks. CDDP can inhibit the occurrence and development of adverse cardiovascular events caused by PCI, thus improving the prognosis, quality of life, and cardiovascular function and inhibiting the inflammatory response of CHD patient. Clinical studies have shown that Danshen can improve vasodilation, cardiac protection, endothelial stability, and lipid and cholesterol regulatio. In a clinical study involving 116 patients with acute cerebral infarction(ACI), compound Danshen injection (16 mL, added to 150 mL of 5% glucose solution, intravenous drip, once per day) can effectively improve the clinical symptoms, reduce the incidence of complications, improve the recovery of the IL-6, CRP, and D-dimer levels and enhance patients sleep qualit. Another study showed that the compound Danshen tablet combined with antiepileptic drugs can effectively reduce the concentration of neuron-specific enolase, IL-6, and hypersensitive C-reactive protein in the serum of children with epilepsy, and improve their cognitive function

The compatibility of Danshen with different drugs not only expanded the scope of drug use, enhanced the pharmacological action, but also reduced toxicity. Although current efforts have revealed the mechanisms of multiple therapeutic effects of Danshen, existing studies have serious problems of low level and duplication.

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RECUPERATION AND RECOVERY OF POSTPARTUM DISEASES

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Abstract. We want to explore the optimal treatment scheme of traditional Chinese medicine for postpartum conditioning and promoting postpartum recovery.So we explored treatment methods for related diseases.To effectively prevent and control the occurrence and development of postpartum diseases, this study focuses on the following aspects: prevention, prevention of existing diseases and changes, and prevention of recovery after recovery.

Keywords: Postpartum disease, Postpartum recovery, Traditional Chinese Medicine

The postpartum period is an important stage for postpartum women.It refers to the gradual restoration of changes in various organs throughout the body to their pre pregnancy state during pregnancy and delivery.And the postpartum period is from the end of delivery to 6 weeks postpartum. The «Synopsis of the Golden Chamber» pioneered a specialized discussion on women's diseases, which pointed out that «new blood deficiency, excessive sweating, liking stroke, causes spasms, blood loss, sweating, and excessive cold, causing stagnation and emission; body fluid loss, stomach dryness, and difficulty in bowel movements».Later generations of medical experts often followed this theory, and the treatment of postpartum diseases was mostly based on tonifying methods, combined with specific disease syndromes, and treated according to each syndrome.

Objective

Improper adjustment during the postpartum period can bring many negative issues, such as poor uterine recovery, increased Postpartum bleeding, prolonged lochia, puerperal infection.Regardless of any mode of delivery, postpartum women need postpartum conditioning treatment.In general, Western medicine has a single way of postpartum conditioning, and there is no effective treatment plan for Uterine contraction pain, postpartum lactation, postpartum insomnia and other symptoms. Traditional Chinese medicine promotes postpartum recovery through syndrome differentiation, ear point acupuncture and moxibustion, external application of Chinese medicine and other comprehensive therapies.

Materials and methods

Fu Qing, the head of the gynecology department, proposed in the postpartum disease section that postpartum women have physiological characteristics of multiple deficiencies, multiple blood stasis, and multiple colds.Postpartum women are often in a state of deficiency of qi and blood, and disharmony between health and nutrition, known as «blood deficiency and qi are also deficient «, combined with factors such as injury during childbirth, cold during childbirth, improper postnatal conditioning, and poor emotions, forms a polymorphic constitution of postpartum deficiency and excess.

Results and discussion

Women's postpartum cellular pulse is often damaged, so postpartum diseases often have deficiency as the fundamental pathogenesis.If the condition progresses and is prone to various mixed syndromes, the «harmony method» is commonly used to reconcile yin and yang with the spleen and stomach, regulate qi and blood, and dredge the three energizers. Based on the overall situation, the conflicting pathogenesis can be relieved. Internal harmony leads to external peace, and the duration can be balanced.

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GYNECOLOGY AND REGIONAL CHARACTERISTICS IN COLD REGIONS

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Abstract. Women in cold cities live in the cold and dry environment of the north for a long time.People live too cold in winter and take care of too warm and tend to have a fatty, sweet, and greasy diet.Professor Cong Huifang innovatively proposed a new concept of gynecology in cold regions based on the characteristics of cold regions. Professor Cong has organized and summarized numerous academic thoughts of medical practitioners and she analyzed that women in cold regions often develop diseases due to «cold», «dampness», «wind», and «depression». Professor Cong attaches great importance to mental health when diagnosing and treating diseases, seeking the root cause and treating both symptoms and root causes; In the prevention and nursing, we will improve women's physique and pursue Unity of Heaven and humanity through prevention before illness.

Keywords: Gynecology in Cold Regions,Endometriosis,fibroid

In the book «Su Wen · Yin Yang Corresponds to the Phenomenon», «Cold is born in the north». Scholars tend to refer to cities in cold regions such as Heilongjiang as «cold cities».n the Heilongjiang region, winter is long and summer is short, with the majority being cold and evil. And the cold nature leads to stagnation, which can easily damage yang qi.And it is easy to block the stagnation of yang qi, so women in cold regions are susceptible to cold and develop diseases, thus forming the disease spectrum and incidence characteristics of gynecological diseases in northern cold regions.

Cold cities have their unique climate and geographical environment, so we analyze the physical characteristics and pathogenic characteristics of cold women from the perspective of regional characteristics.Moreover, valuing the concept of «treating diseases before they occur» and emphasizing regulation have greater significance for women's rehabilitation.Throughout history, doctors in the cold regions have been tireless and have achieved great accomplishments in treating diseases based on syndrome differentiation and prescribing medication. At the same time, Professor Cong Huifang has also condensed the unique academic ideas of gynecology in cold regions in terms of «pathogenic» and «therapeutic» aspects.

Objective

By contemplating and exploring gynecology in cold regions, we can predict the direction of disease development, prevent diseases before they occur, alleviate women's suffering, and effectively save medical resources, reduce medical costs, and avoid excessive medical treatment.

Materials and methods

Women rely on blood as their foundation and qi as their use. Women have many special periods throughout their lives, such as menstruation, childbirth, childbirth, and lactation, which lead to the existence of corresponding special diseases. From the perspective of external causes, women in northern China are susceptible to wind, cold, and dampness.And the evil energy of wind, cold, and dampness affects women's bodies that leads to imbalance of qi and blood, abnormal visceral function, and damage to the Chong and Ren meridians.Endometriosis, Uterine fibroid and polycystic ovary syndrome caused by cold are more common in gynecological medicine in cold regions.

Results and discussion

The occurrence of this type is closely related to the evil of Fu Han.And Fu Han refers to the cold evil hidden in the human body at different times, including the genetic cold of parents, the fetal cold of mothers, and the self perceived cold. If one of these criteria is met, the disease can occur. If people do not know how to prevent diseases before they become ill, prevent diseases from changing, and do not pay attention to them, all of them can be combined and accumulated layer by layer, which will eventually lead to cold coagulation and blood stasis, Chong Ren block, blockage of cellular veins and cellular networks, impeded operation of qi and blood in the uterus, accumulation of yin and blood during women's menstrual period, even more stagnation, and pain if blockage, then Endometriosis, Uterine fibroid, and polycystic ovary syndrome can be seen.

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DISCUSSION ON THE DEVELOPMENT PATH OF LONGJIANG MEDICAL SCHOOL, A PROVINCIAL INTANGIBLE CULTURAL HERIGATE

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Abstract. Intangible cultural heritage, as the best witness of historical development, is an extremely precious and important cultural resource. Longjiang Medical School, as an intangible cultural heritage project of traditional medicine in Heilongjiang Province, has distinct regional cultural characteristics and cultural deposits. This paper discusses the way of inheritance and dissemination of Longjiang medical school from the general situation and countermeasures of its development.

Keywords: Longjiang medical school; Intangible cultural heritage

Longjiang School of Medicine is an academic school of traditional Chinese medicine rising in northeast China in modern times. It is influenced by many factors such as the unique geographical location, climate environment, history, culture, economy and society of Heilongjiang Province[1]. Longjiang Medical School, as a cold region medical school with distinct regional characteristics and black soil culture, was selected into the fifth batch of intangible cultural heritage list of Heilongjiang Province in 2016. Under the leadership of Longjiang Medical School, Heilongjiang Province's traditional Chinese medicine industry has made great progress in various aspects, such as social science popularization, inheritance talent training, public radiation influence, experience mining and collation, and academic platform construction, which has benefited the broad masses of people and vigorously promoted the culture of Longjiang traditional Chinese medicine.

Objective

With the support of national policies, the protection measures of intangible cultural heritage are gradually improved, the importance of intangible cultural heritage is getting higher and higher, and its protection is also getting greater and greater, and the Longjiang medical School also gets new opportunities for development in the flood of The Times[2]. Therefore, Longjiang medical School needs to strengthen international exchanges and cooperation on the basis of self-development, so as to achieve better dissemination and inheritance.

Materials and methods

In recent years, with the establishment of the Longjiang School of Medicine research team, the development of Longjiang School of medicine has entered a new stage with the pace of The Times. written and published more than 40 books of «Longjiang Medical School Series» and «Longjiang Medical School Modern TCM Clinical Ideas and Methods Series», presided over more than 10 subjects at the department level and above, published more than 100 academic papers, and won 8 awards at the provincial and ministerial level and above. The research group has founded the Longjiang Medical School Research Association and inheritance Studio, built more than 80 secondary workstations and demonstration clinics of Longjiang Medical School Inheritance Studio at China and abroad, and regularly held academic annual meetings to exchange academic experience; set up relevant university thematic education courses, and its education team was selected as the provincial class A education teaching team. There is also the establishment of Longjiang Medical School academic and cultural Festival, the construction of «Longjiang Medical History» exhibition hall[3].

Results and discussion

First of all, we should make reasonable use of new media and strengthen content review. We should pay attention to the authenticity, professionalism and pertinence of its content, and enhance the depth and connotation of the content. At the same time of innovation and dissemination, we should not forget the spiritual core, and explore and give full play to the powerful content resources of intangible cultural heritage.

The vitality of intangible cultural heritage lies in its cultural connotation, but also in its own development in the new era. We should attach importance to basic research, excavate the cultural deposits and connotations contained in intangible cultural heritage, and do a good job in the collection, protection and inheritance of intangible cultural heritage archives. Strengthen academic and cultural exchanges, and promote the creative transformation and innovative development of Longjiang medical School through various channels with an open and inclusive attitude.

Finally, we should strengthen publicity and education, and give full play to the role of colleges and universities. It is necessary to strengthen the construction and training of teachers, actively explore the innovation of the mode of intangible cultural heritage education in colleges and universities, and make use of the educational

advantages of the network platform to train more professional talents for Longjiang medical school.

Intangible cultural heritage is an important symbol of national culture, and the protection and inheritance of intangible cultural heritage is of fundamental significance to a nation and a country. In the tide of The Times, Longjiang medical School should not only maintain and carry forward the advantages of traditional treatment, but also integrate various resources to promote the continuous development of traditional Chinese medicine on the basis of achieving its own prosperity.

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EFFECTS OF SCALP-ABDOMINAL ELECTROACUPUNCTURE ON INSOMNIA IN PATIENTS WITH PARKINSON'S DISEASE

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Abstract. A growing body of research shows that Parkinson's disease (PD) can lead to varying degrees of sleep disturbance. Previous studies have shown that acupuncture can improve insomnia in patients with Parkinson's disease. However, previous acupuncture techniques focused on brain and motor symptoms. Our objective was to determine the effectiveness and influence of scalp-abdominal electroacupuncture on insomnia disorders in PD patients by treating the gut-brain axis.Thirty patients with mild to moderate PD were randomised into an intervention (n = 15) and a control group (n = 15). The results were evaluated to evaluate the efficacy and safety of scalp-abdominal electroacupuncture for insomnia in patients with Parkinson's disease.

Keywords: Scalp-abdominal,electroacupuncture,Insomnia,Parkinson's Disease

Parkinson's disease (PD) is a neurological disease characterized by progressive degeneration of dopaminergic neurons in the substantia nigra striatum.The clinical manifestations are quiescence tremor, bradykinesia, muscular rigidity and postural abnormalities.Although the main symptoms of PD are motor disorders due to depletion of the neurotransmitter dopamine in the striatum, it has long been recognized that non-motor symptoms, including olfactory and gastrointestinal dysfunction, depression, and sleep disturbances, occur in the early stages before exercise .Non-motor symptoms are increasingly recognized as an important cause of morbidity and disability in patients with Parkinson's disease. Insomnia is one of the most common non-motor symptoms in Parkinson's disease and a key factor affecting the quality of life.Different sleep disorders are observed in patients with Parkinson's disease.However, previous studies on the treatment of PD by electroacupuncture mainly focused on brain and motor symptoms, and selected scalp and limb acupoints respectively[1].In fact, studies have shown that obesity in mouse models treated by electroacupuncture can be alleviated, and the intestinal microflora of these mice is also changed after electroacupuncture intervention[2]. Electroacupuncture can also treat ulcerative diseases by regulating intestinal microbiome[3].In view of the fact that intestinal microbiota may be the target of electroacupuncture, which is also closely related to the pathogenesis of PD, we speculated that scalp-abdominal electroacupuncture could target the gut-brain axis of PD patients to treat the disease. Therefore, scalp-abdominal electroacupuncture was chosen as the therapeutic means in this program.

Objective

Our objective was to determine the effectiveness and influence of scalp-abdominal

electroacupuncture on insomnia disorders in PD patients by treating the gut-brain axis.

Materials and methods

Thirty patients with mild to moderate PD were randomised into an intervention (n = 15) and a control group (n = 15). The intervention group received electroacupuncture twice a week for 30 min based on conventional drug treatment for 8 weeks. Conventional drug treatment was continued in the control group.Primary outcome measures included Pittsburgh Sleep Quality Index (PSQI), PD Sleep Scale (PDSS) , Non-Motor Symptom Rating Scale (NMSS) and Bristol Stool Function Scale (BSFS).The efficacy and safety of scalp and abdominal electroencephalitis in treating insomnia in patients with Parkinson's disease were evaluated by the score of the scale and gene sequencing.

Results and discussion

According to Chinese acupuncture theory, functional connection and communication between acupuncture points, brain and intestines have always been important clinical considerations in acupuncture.In past research, there is growing evidence that there is an intense conversation going on between the brain and the gastrointestinal system.With the «gut-brain axis» theory attracting wide attention, a thorough evaluation of the gastrointestinal tract in patients with Parkinson's disease has found that intestinal microbiome is not only considered as a contributor to the pathogenesis of PD patients, but also a potential cause.Histopathologically, PD is characterized by pathological misfolding of alpha-synaptic nucleoprotein (alpha-SYN) protein, which affects the functions of the central, peripheral and enteric nervous systems.Although alpha-syn aggregates are most commonly found in the brain, they are also found in peripheral sites such as the enteric nervous system (ENS), providing support for the idea of an «enteric brain axis» that is a two-way communication route between the central and enteric nervous systems and the gastrointestinal system.In recent years, a study has shown that scalp-abdominal electroacupuncture may be a complementary and alternative carrier for PD patients, emphasizing the role of enterobrain axis in this process.

An 8-week scalp-abdominal electroacupuncture treatment may be a complementary and alternative vehicle for PD patients. We detected nine taxa at the genus level which were significantly altered after treatment, emphasising the role of the gut-brain axis in the process.

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EFFECTS OF INDIVIDUALIZED TAI CHI ON BALANCE ABILITY IN THE ELDERLY

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Abstract. This article reveals the effect of individualized Tai chi on the improvement of balance ability in the elderly. Fifty residents over 65 years old were recruited to participate in the study. They were divided into an individualized Tai chi group (n=20) and a traditional Tai chi group (n=15). Those who did not participate in physical exercise were included in the control group (n=15). Functional balance test, Berg balance Scale (BBS) and timed up and go test (TUG) were used to evaluate the improvement of balance ability of patients in the three groups before intervention and 8 weeks after intervention. Through the evaluation of the scale, it is pointed out that personalized Tai chi training has a high acceptability in the short term.

Keywords: Tai Chi, Physical exercise, aged,fall risk,Balance function

As the world's population has entered the aging stage, the proportion of the elderly population in the world is increasing year by year. The health problems caused by aging are troubling every family. Falls are one of the major causes of morbidity and mortality in the elderly[1]. Therefore, the training of balance and limb coordination control in the elderly is extremely important. Tai Chi, a traditional Chinese exercise, is a suitable exercise for the elderly due to its low impact, mild intensity, and minimal stress

on joints and cardiovascular system. Tai chi not only improves cardiorespiratory fitness, but also enhances limb proprioception, improves balance control and postural adaptation, and reduces fall risk in older adults[2]. Due to the different aging process, the elderly have great differences in their acceptance of exercise intensity and difficulty. Therefore, the personalized adjustment of Tai chi exercise prescription gradually improved according to the exercise capacity of the practitioner. In addition, the complexity and duration of traditional Tai Chi sequences may be challenging for some older adults. Therefore, in order to achieve the training goals of exercise more effectively, maximize the beneficial effects and improve exercise compliance, we developed a personalized Tai chi exercise program suitable for the elderly. In this study, the results of the individualized Tai Chi exercise group were compared with those of the control group and the traditional Tai chi exercise group for the balance function of the elderly[3].

Objective

To evaluate the efficacy and safety of individualized Tai Chi by evaluating the balance function of the elderly in the individualized Tai chi group, the traditional Tai chi group and the control group.

Materials and methods

Functional balance test, Berg balance Scale (BBS) and timed up and go test (TUG) were used to evaluate the improvement of balance ability before and after 8 weeks of intervention. This study was a prospective quasi-experimental observer-blinded controlled trial. Participants underwent baseline assessments and a follow-up visit 8 weeks later.

Results and discussion

Tai Chi is based on continuous fluid movements, including a half-squat posture that shifts the body's weight from side to side. The concentric and eccentric contraction of the muscles during Tai chi exercise can increase the muscle strength of the lower limbs. In the present study, we found that both traditional tai chi training and individualized tai chi training resulted in beneficial effects in older adults compared with the control group, but eight weeks of individualized training resulted in improved balance in all lower limbs. Therefore, we hypothesized that because of the difficulty of traditional Tai Chi exercises, participants often omit or skip difficult movements. Therefore, personal factors should be taken into account when making a Tai chi exercise plan for the elderly. In the individualized Tai Chi group, Tai chi movements were assigned according to their balance control ability, and the difficulty gradually increased after adapting to the intensity. Most studies suggest that older adults must exercise for longer periods of time to benefit from various forms of exercise, including Tai chi. However, in this study, only 8 weeks of training could achieve the long-term effect. If participants train at the right intensity and complexity, they can more precisely improve muscle control of strength, proprioception, and postural adaptation, thereby enhancing motor function, enhancing the part of the brain that controls balance, and increasing overall stability[4].

Therefore, we conclude that the strength of the individualized tai chi group lies in the tailored movements and graded intensity and complexity patterns. Both the individualized Tai chi group and the traditional Tai Chi group have a positive effect on the balance function of the elderly. In terms of compliance and balance function evaluation, the individualized Tai chi group has the best treatment effect.

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META-ANALYSIS OF CLINICAL EFFICACY OF ACUPUNCTURE IN TREATING OCULOMOTOR NERVE PARALYSIS

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Abstract. The clinical effect of acupuncture on oculomotor nerve palsy was analyzed. It provides a theoretical basis for the promotion and application of acupuncture treatment of the disease.The Cochrane Library, PubMed, Web of Science, EMBASE, China Knowledge Network, China Biomedical Literature Database, China Science and Technology Journal Database, and the Wanfang Database will be used for data collection. Randomized controlled trials related to acupuncture-based treatment of oculomotor nerve palsy were collected, and the search time was self-built - June 2023. Review Manager 5.4 software was used for meta-analysis of all the data. The main outcome measures included the total clinical response rate, the comparison of ophthalmic fissure before and after treatment, the comparison of pupil before and after treatment, and the secondary outcome measures were the comparison of diplopia before and after treatment.

Keywords: Acupuncture; Oculomotor nerve paralysis; Clinical effect; meta-analysis

Oculomotor nerve palsy is a common disease of brain nerve damage, mainly characterized by diplopia, strabismus, eyelid ptosis and ocular muscle paralysis [1]. «On the Source of Diseases and Symptoms, Eye deflection and symptoms» records: «Eye is the essence of the five viscera and six organs. People from the bottom of the viscera vacuity and the wind evil into the eyes, and the pupil is shot by the wind, the eye is not regular deviation.» Therefore, this disease belongs to the category of «wind deflection», which is mostly caused by internal movement of liver wind, upper disturbance to clear the orifice, and eye orifice occlusion [2].

Objective

Meta-analysis was used in this study to evaluate the efficacy of acupuncture therapy in the treatment of oculomotor nerve palsy.

Materials and methods

Chinese databases such as CNKI, Wanfang, VIP and CBM, and English databases such as PubMed, Embase and Cochrane Library were searched by computer. Search time: The search time was self-built database - June 2023. Subject words and free words are searched according to different database conditions to ensure the systematicness and integrity of the search.

Results and discussion

Oculomotor nerve palsy belongs to the categories of «ptosis», «eyelid waste» and «wind deflection» in traditional Chinese medicine. It is mainly caused by the imbalance of Yin and Yang, the collapse of Qi deficiency, the loss of ying and wei, the inability to lift the eye muscle and the deficiency of blood. The liver opens in the eyes, the eyes receive blood and can see, the liver stores blood, the liver Yin blood is insufficient, and the eyes are lost in the nourishing, then the sight becomes double [3]. Modern research believes that the disease is due to wind meridians, resulting in adverse movement of qi and blood on one side of the eye meridians, muscle loss and slow use. Its cause is closely related to the liver.[4]» The results of this study further confirmed the effectiveness of acupuncture in the treatment of oculomotor nerve palsy, and provided an evidence-based basis for the clinical use of acupuncture in the treatment of this disease, and acupuncture therapy can significantly improve the height of the eye crack, restore the pupil size, and reduce the degree of diplopia.

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EFFICACY OF WARM NEEDING MOXIBUSTION COMBINED WITH TIANJIU IN TREATING KEEN OSTEOARTHEITIS

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Abstract. More and more studies show that the traditional Chinese medicine treatment of knee osteoarthritis is effective, simple, convenient, effective, inexpensive characteristics. Previous studies have shown that warm needling moxibustion has a good effect on knee osteoarthritis. But single treatments are often limited. Therefore, this study uses the method of warm needling moxibustion combined with Tianjiu to explore the effectiveness of the treatment of knee osteoarthritis.

Keywords: knee osteoarthritis, warm needling moxibustion, Tianjiu

Knee osteoarthritis (KOA) is a chronic joint disease characterized by progressive cartilage degradation and hyperosteogeny, which is characterized by hyperosteogeny, hyperosteogeny and hyperosteogeny. The main clinical manifestations are knee pain and different degrees of dysfunction, some of which have joint swelling and effusion, which seriously affect the quality of life of patients[1]. At present, western medicine mostly adopts drug treatment and surgical treatment, but the treatment effect is not good. In recent years, Chinese medicine has shown great advantages in treating knee osteoarthritis. Some studies have shown that warm needling moxibustion can not only relieve pain, but also improve knee flexion and extension muscle strength and muscle strength balance[2]. In addition, as a commonly used external treatment method of traditional Chinese medicine, Tianjiu is used to make the skin naturally congested, flushed or bubbled by using the pharmacological action of drugs or by stimulating acupuncture points and skin. It is also widely used in the clinical treatment of knee osteoarthritis[3]. Based on these, this study was to observe the the effect of warm needling moxibustion combined with Tianjiu on knee osteoarthritis and the influence on joint pain and joint function.

Objective

To evaluate the effect of warm needling moxibustion combined with Tianjiu on knee osteoarthritis. The aim of this study was to explore the therapeutic effect of warming acupuncture combined with natural moxibustion on knee osteoarthritis.

Materials and methods

Sixty patients with knee osteoarthritis were randomly divided into three groups: warm needling moxibustion group (n=20), Tianjiu group (n=20) and warm needling moxibustion combined with Tianjiu group (n=20). the points of warm needling moxibustion were selected at Neixiyan, Dubi, Zusanli, Xuehai and Ashi. The treatment was given 6 times a week for 30min for 4 weeks. The Tianjiu adopts Bai Jiezi, Gansui,Xixin and Shengjian, the treatment time is 2-4 hours, the moxibustion is performed once every 10 days, and the treatment course is 3 times. Primary outcome measures included response rate, visual analogue pain scale, the western ontario and mcMaster universities knee function score,Lysholm knee scale scores and adverse reactions. To systematically evaluate the efficacy and safety of warming acupuncture combined with natural moxibustion in treating knee osteoarthritis.

Results and discussion

As the most complex and heavy bearing joint of lower limbs, knee joint is the predilection site of osteoarthritis, which has a great impact on the quality of life of patients. In traditional Chinese medicine, knee osteoarthritis belongs to the category of «arthralgia» and «bone paralysis.» The pathogenesis is cold caused by yang deficiency, and qi and blood obstruction caused by cold coagulation. Warm needling moxibustion can play a role in warming the meridians to unblock collaterals, promoting qi and blood circulation. Tianjiu integrates meridians, acupuncture points and drugs, which can effectively improve microcirculation and accelerate blood circulation. Therefore, the combination of the two can effectively relieve or eliminate the local pain, swelling and dysfunction of the knee joint.

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CLINICAL OBSERVATION OF FEIJING ZOUQI ACUPUNCTURE ON VASCULAR DEMENTIA AFTER CEREBRAL INFARCTION (PHLEGM TURBIDITY OBSTRUTING ORIFICES PATTERN)

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Abstract. Objective: To investigate the clinical effect of Feijing Zouqi acupuncture on vascular dementia (VD) after cerebral infarction. Methods: 70 patients with VD were randomly divided into treatment group and control group, 35 cases in each group. The treatment group was treated with the method of Feijing Zouqi acupuncture, while the control group was treated with the method of conventional acupuncture. According to TCM syndrome scores, the clinical efficacy of the two groups of patients was compared. Results: The total effective rate of the two groups of patients with VD after cerebral infarction was significantly better than that of the control group, and the difference was statistically significant (P<0.05). This study showed that the clinical effect of the treatment group on VD (phlegm turbidity obstructing orifices pattern) was significantly better than that of the control group.

Keywords: Vascular dementia; Cerebral infarction; Feijing Zouqi; Acupuncture

Introduction

Vascular dementia (VD) is a syndrome of cognitive and intellectual dysfunction caused by cerebrovascular diseases, with emotional disorders, memory and calculation decline as the main manifestations, but also lead to a decline in mobility, slow movement. In addition, with the gradual aging of China's population, the incidence of cerebrovascular disease is increasing year by year, and the incidence of VD is on the rise, which brings great mental pressure and economic burden to the patient's family.

Objective

To observe the clinical effect of the treatment of VD after cerebral infarction (phlegm turbidity obstructing orifices pattern) by Feijing Zouqi acupuncture.

Materials and methods

A total of 70 patients admitted to the fourth Department of Acupuncture and Moxibustion in the First Affiliated Hospital of Heilongjiang University of Chinese Medicine from September 2022 to July 2023 were selected and randomly divided into treatment group and control group according to random number table method, with 35 patients in each group. The treatment group was treated with Feijing Zouqi acupuncture. The acupuncture points were Yintang, Baihui, Sishencong, Shenting, Fengchi, Quchi, Zusanli, Xuanzhong, Taixi and Fenglong. After the acupuncture treatment group Baihui, Sishencong and Shenting were stabbed with No.30 1.5 inches acupuncture needle, the Canggui Tanxue method was performed. Lift and pinch the local skin of Yintang, after flat pricking people Yintang, do the Chifeng Yingyuan method; Fengchi point twist method, get qi immediately obtained; After Neiguan, Quchi, Zusanli, Xuanzhong, Taixi and Fenglong acupuncture needle are inserted, Qinglong Baiwei method and Baihu Yaotou method are applied to the shallow part of the needle. In the control group, the points selected were the same as those in the Feijing Zouqi acupuncture group, the patients were in the healthy lateral position, routine disinfection of acupoints, supplementing method for Zusanli, Taixi and Xuanzhong, even reinforcing-reducing method for the remaining points, and electroacupuncture after twisting the acupuncture needle at the head point. After obtaining qi, the needle was retained for 40 minutes, once a day, 6 times a week for 4 weeks. TCM syndrome scores were measured before and after treatment to observe the effectiveness of Feijing Zouqi acupuncture in the treatment of VD after cerebral infarction.

Result and discussion

Before treatment, the general data such as gender, course of disease, age and education level were statistically comparable between the treatment group and the control group, with no statistical significance (P>0.05). After a total of 28 days of treatment, 35 patients in the treatment group and 35 patients in the control group were effective in 29 cases (82.9%), ineffective in 6 cases (17.1%), effective in 23 cases (65.7%) and ineffective in 12 cases (34.3%) of the control group. The total effective rate of the treatment group was significantly better than that of the control group, and the difference was statistically significant (P<0.05). This study showed that the clinical effect of the treatment group on VD (phlegm turbidity obstructing orifices pattern) was significantly better than that of the control group.

Vascular dementia, as a common complication after cerebral infarction, is mainly manifested as significant impairment of cognitive function accompanied by impairment of the nervous system. Early acupuncture can improve the cognitive function and daily living function of VD after cerebral infarction1. Studies have proved that acupuncture at points on the head can improve blood supply to the brain and promote nerve tissue repair [2].

Feijing Zouqi acupuncture could improve VD

of phlegm turbidity obstructing orifices syndrome significantly, and no obvious adverse reactions occurred in both groups during treatment. To sum up, the treatment of VD after cerebral infarction by Feijing Zouqi acupuncture (phlegm turbidity obstructing orifices pattern) has significant clinical effect and can be widely used in clinical practice.

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OBSERVATION ON CLINICAL EFFECT OF FIVE-STAGE PULL-STRETCHING METHOD COMBINED WITH TRADITIONAL CHINESE MEDICINE HOT COMPRESS ON LUMBAR INTERVERTEBRAL DISCHERNIATION (COLD-DAMPNESS OBSTRUCTION TYPE)

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Abstract. This paper introduces the treatment of lumbar intervertebral disc herniation (cold-dampness obstruction type) with five-section pull-stretching method combined with traditional Chinese medicine hot compress. According to the 60 patients from the massage ward of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine, they were randomly divided into two groups: the control group was treated with traditional Chinese massage combined with warm water compress, and the experimental group was treated with five-stage pulling and stretching combined with hot compress, and statistical analysis was conducted. Conclusion The clinical effect of five-stage pull-stretching method combined with traditional Chinese medicine hot compress on lumbar intervertebral disc herniation (cold-dampness obstruction type) is good.

Keywords: Lumbar disc herniation; Traditional Chinese medicine hot compress; Cold and dampness impediment; Five stage drawing method; Massage

Lumbar intervertebral disc herniation (LDH) is a kind of disease mainly characterized by lumbar and leg pain and lower limb numbness, which mainly occurs in L4-S1 intervertebral disc.The study found that the five-stage pulling and stretching massage method is a new method improved on the basis of the traditional massage method. The waist to the lower limbs are divided into five sections, and the gradual pulling and stretching can relax the tendons and relax the collateralization and promote the movement of Qi and blood.Traditional Chinese medicine hot compress is one of the external treatment methods. Through thermal action, the effective components of traditional Chinese medicine can enter the muscles and bones through the hair, promote metabolism, dispel wind and dehumidification, relax tendons and clear collaterals1.Therefore, this study intends to use the five-stage pull-stretching method combined with traditional Chinese medicine hot compress to treat the cold-dampness obstruction type lumbar disc herniation, give full play to the advantages of massage and traditional Chinese medicine, and reduce the pain of patients.

Objective

To observe the clinical effect of Wuduan Pull-stretching method combined with traditional Chinese medicine hot compress on lumbar disc herniation (cold-dampness obstruction type)

Materials and methods

A total of 60 patients with cold-damp-obstruction lumbar disc herniation who were treated in the massage ward of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine from June 2022 to June 2023 were selected and randomly divided into control group and experimental group with 30 patients in each group by using random number table method.The control group was treated with traditional Chinese lumbar massage. After treatment, the patients were treated with warm water soaked gauze instead of traditional Chinese medicine for 10 min, and each treatment was 30 min.The experimental group was treated with conventional [1], kneading, pressing, holding and other manipulations along the three Yang channels of the foot. The affected side foot was raised, and the doctor's hands simultaneously pulled

the affected side heel and the diseased spinous process continuously.Then pull the hip ring point and heel of the affected side.Then pull the affected side of the central point and heel.Finally bend the hips and shake the hips to relax.After treatment, use traditional Chinese medicine for hot compress, use the characteristic prescription «lumbago prescription» to divide the drug residue into 3 cloth bags in equal parts, heat the temperature to rise to 50-60 °C, and place it in Yaoyangguan, Weizhong and Shenshu acupoints.About 30min each time. Patients in both groups were treated once a day, 7 days a week for 2 weeks. VAS, JOA scores, peak moment under slow lumbar flexor extension, serum inflammatory factor IL-6 and TCM syndrome scores were measured before and after treatment, and the effectiveness of the experimental group was observed.

Results and discussion

Before treatment, VAS, JOA scores, peak moment and serum inflammatory factor IL-6 in slow lumbar flexion and extension state between control group and experimental group had no statistical significance (P>0.05), and were comparable. Intra-group comparison: After treatment, both experimental group and control group could improve the symptoms of patients, and the difference was statistically significant compared with before treatment (P<0.01). Inter-group comparison: After treatment, the improvement of experimental groups was greater than that of control group, and the difference was statistically significant (P<0.05).The clinical efficacy of the two groups was compared, the total effective rate of the observation group was 87.4%, the total effective rate of the control group was 62.9%, the difference between the two groups was statistically significant (P<0.05).The results of this study showed that the clinical efficacy of the experimental group in the treatment of lumbar disc herniation (cold-dampness obstruction type) was significantly better than that of the control group.

The five-stage pulling and stretching method combined with traditional Chinese medicine hot compress can obviously improve the clinical symptoms of cold-dampness obstruction type lumbar disc herniation.

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ELECTROACUPUNCTURE AT THE GOVERNOR VESSEL IN COMBINATION WITH DONEPEZIL HYDROCHLORIDE IMPROVES LEARNING AND MEMORY ABILITIES IN ALZHEIMER'S DISEASE: INSIGHTS INTO MECHANISMS

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Abstract. In this randomized study of 60 AD patients, the observation group received electroacupuncture (EA) at Baihui and Fengfu acupoints alongside donepezil hydrochloride, while the control group received only donepezil orally. After 80 days, both groups showed significant cognitive improvements (MoCA and ADAS-Cog, P<0.05). The observation group had superior outcomes, with reduced P300 latency, increased amplitude, and lower APP and Aβ1-42 levels compared to controls (P<0.05). Combining EA and donepezil effectively enhanced learning and memory abilities in AD patients, surpassing donepezil monotherapy.

Keywords: Acupuncture; Alzheimer's Disease; Traditional Chinese Medicine; Governing Vessel (Du Mai); Learning and Memory Abilities; Randomized Controlled Study.

Alzheimer's disease (AD) is a progressive neurodegenerative disorder characterized by impairments in learning and memory functions [1]. The pathological hallmark of AD is the deposition of amyloid-β (Aβ) protein leading to the formation of senile plaques, which induces neurotoxicity and mitochondrial damage. Thus, reducing Aβ aggregation is a key therapeutic target for AD[2]. Abnormal APP processing leads to increased Aβ generation or reduced clearance, resulting in neurotoxic substances that trigger inflammatory reactions, oxidative stress, and neuronal apoptosis, contributing to AD development. AD is classified in Traditional Chinese Medicine as related to «forgetfulness» and «dementia,» affecting the brain. The Governing Vessel meridian connects

the heart, Luo channels, and brain, linking with the kidney and bladder meridians at Baihui and Fengfu acupoints. Stimulation of these acupoints awakens the brain, opens orifices, and connects meridians, making them vital for AD treatment.

Objective

This study aimed to compare the therapeutic efficacy of electroacupuncture (EA) in combination with donepezil hydrochloride to that of donepezil hydrochloride monotherapy in improving learning and memory abilities in Alzheimer's disease (AD) patients, and to explore their underlying mechanisms.

Materials and Methods

We selected 60 confirmed AD patients and assigned them randomly to the experimental and control groups using a computer-generated randomization method with sealed envelopes. The diagnosis was made according to the 2011 National Institute on Aging (NIA) and Alzheimer's Association (AA) diagnostic criteria[3]. The control group received only oral donepezil hydrochloride treatment, while the experimental group received EA at Baihui and Fengfu acupoints in combination with oral donepezil hydrochloride treatment. After 4 weeks of treatment, relevant indicators were evaluated to assess efficacy.

Results and dscussion

In this study, there were no significant differences in gender, age, and disease duration between the two groups ($P>0.05$), indicating comparability. Prior to treatment, there were no significant differences in P300 latency and amplitude between the two groups ($P>0.05$), indicating comparability. However, after treatment, the observation group exhibited significantly decreased P300 latency and increased P300 amplitude ($P<0.05$) compared to the control group. Before treatment, there were no significant differences in serum levels of APP and Aβ1-42 between the two groups ($P>0.05$), indicating comparability. Nevertheless, after treatment, the observation group showed significantly reduced serum levels of APP and Aβ1-42 ($P<0.05$) compared to baseline, with lower levels compared to the control group ($P<0.05$). Before treatment, MoCA and ADAS-Cog scores did not differ significantly between the two groups ($P>0.05$), indicating comparability. However, after treatment, the observation group exhibited significantly higher MoCA scores and significantly lower ADAS-Cog scores compared to the control group ($P<0.05$).

Our study results demonstrate that the combination of electroacupuncture at Baihui and Fengfu acupoints with donepezil hydrochloride effectively improves learning and memory abilities in AD patients, surpassing the efficacy of donepezil hydrochloride monotherapy. Furthermore, our findings shed light on the therapeutic mechanisms, including the improvement of P300 latency, amplitude, and regulation of serum APP and Aβ1-42 levels. These results provide a new theoretical basis for further exploration of AD treatment strategies integrating both Western medicine and Traditional Chinese Medicine.

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CLINICAL OBSERVATION OF ACUPUNCTURE COMBINED WITH QIANGHUO SHENGSHI DECOCTION IN THE TREATMENT OF CERVICAL SPONDYLOTIC RADICULOPATHY

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Abstract. To observe the clinical efficacy of acupuncture combined with Qianghuo Shengshi decoction in the treatment of cervical spondylotic radiculopathy. Ninety patients with cervical spondylotic radiculopathy were selected and randomly divided into an experimental group (treated with acupuncture combined with Qianghuo Shengshi decoction) and a control group (treated with Qianghuo Shengshi decoction with modifications).Both groups showed improvement in symptom scores, with the experimental group demonstrating better results ($P < 0.05$). The total effective rate in the control group was 80%, while the experimental group achieved a total effective rate of 90%, showing a statistically significant difference in efficacy between the two groups ($P < 0.05$). Acupuncture combined with Qianghuo Shengshi decoction has significant therapeutic effects in the treatment of cervical spondylotic radiculopathy.

Keywords: Acupuncture; Qianghuo Shengshi decoction; Cervical spondylotic radiculopathy;

Cervical spondylotic radiculopathy is one of the main types of cervical spondylosis, accounting for more than 60% of cases. Its main features include pain in the neck and shoulder region, as well as numbness in the upper arm and fingers. The pain primarily concentrates in the neck and shoulder area, while the numbness mainly affects the forearm and fingertips [1]. This condition significantly impacts the patient's psychological well-being, daily life, work, and sleep. Therefore, finding the most effective methods to alleviate pain and numbness is an important current task.Traditional Chinese medicine (TCM) treatment for cervical spondylotic radiculopathy has shown certain effectiveness with minimal adverse reactions. Its multi-target and multi-pathway characteristics offer new ideas and approaches for the treatment of cervical spondylotic radiculopathy and the development of related medications.

Information

Ninety patients diagnosed with cervical spondylotic radiculopathy, who sought treatment at the Tuina Department of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine from October 2022 to May 2023, were selected for this study. They were randomly divided into two groups: the experimental group and the control group, with 45 patients in each group. The Traditional Chinese Medicine (TCM) diagnostic criteria were established based on the 2015 «Expert Consensus on the Diagnosis and Treatment Standardization of Cervical Spondylotic Radiculopathy» [2] and included the following criteria:1.Age between 25 and 80 years old.2.Pain and numbness in the neck and shoulder region, which may radiate to the occipital area, upper limbs, and fingers.3.Symptoms aggravated during neck movement.4.Tenderness around the cervical vertebrae.5.Sensory disturbances and decreased muscle strength in the shoulder and upper limbs.6.Positive results in the brachial plexus traction test and intervertebral foramen compression test.Abnormalities detected in cervical X-ray, CT, or MRI imaging, confirming the diagnosis of cervical spondylotic radiculopathy.The herbal prescription for both groups consisted of Qianghuo 15g, Duhuo 15g, Gaoben 6g, Fangfeng 6g, Zhi Gancao 6g, Manjingzi 3g, and Chuanxiong 2g. They were administered three times per week, and the treatment efficacy was observed after two weeks. For the experimental group, the herbal prescription and acupuncture points (Tianzhu, Jianjing, Fengchi, and Shenting) were the same, with routine skin disinfection. Acupuncture was applied with manual stimulation until obtaining qi, and the needles were retained for 30 minutes. The treatment was administered three times per week, and the treatment efficacy was observed after two weeks.Relevant indicators were scored before treatment and one month after the completion of the treatment.

Results and discussion

Before treatment, there were no statistically significant differences ($P > 0.05$) in gender, age, and duration of illness between the control group and the experimental group, indicating comparability between the two groups.Within-group comparisons: After treatment, both the experimental and control groups showed improvements in symptoms such as shoulder and neck pain, neck range of motion, dizziness, and nausea, with statistically significant differences compared to before treatment ($P < 0.01$).Between-group comparisons: After treatment, the experimental group demonstrated significantly greater improvements in shoulder and neck pain, neck range of motion, dizziness, and nausea compared to the control group, with statistically significant differences ($P < 0.05$).Comparing the clinical efficacy between the two groups, the total effective rate in the experimental group was

90%, while it was 80% in the control group, with a statistically significant difference (P < 0.05). The results of this study indicate that the clinical efficacy of the experimental group in treating cervical spondylotic radiculopathy was significantly superior to that of the control group. Acupuncture combined with Qianghuo Shengshi decoction showed remarkable effectiveness in treating cervical spondylotic radiculopathy and deserves widespread application in clinical practice.

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CLINICAL OBSERVATION OF ACUPUNCTURE COMBINED WITH LONGDAN XIEGAN DECOCTION IN THE TREATMENT OF LIVER DEPRESSION TRANSFORMING INTO FIRE TYPE NEURODERMATITIS

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Abstract. To observe the clinical efficacy of acupuncture in the treatment of liver depression transforming into fire type neurodermatitis. 100 patients with liver depression transforming into fire type neurodermatitis were selected and randomly divided into the experimental group and the control group, with 50 patients in each group. The control group received treatment with Longdan Xiegan Decoction with modifications, while the experimental group received acupuncture combined with Longdan Xiegan Decoction with modifications. Both groups showed improvement in symptom scores, with better results observed in the experimental group (P < 0.05). The total effective rate in the control group was 80%, while the experimental group achieved a total effective rate of 95%, showing a statistically significant difference in efficacy between the two groups (P < 0.05).Acupuncture combined with traditional Chinese medicine in the form of Longdan Xiegan Decoction has significant therapeutic effects in the treatment of liver depression transforming into fire type neurodermatitis.

Keywords: Acupuncture; Longdan Xiegan Decoction; Neurodermatitis;

Neurodermatitis, commonly referred to as localized intense itching and lichenified lesions, is a chronic neurogenic disorder that tends to recur in patients [1]. It falls under the category of «Niupixuan» in traditional Chinese medicine. Acupuncture is proficient in regulating local skin circulation, promoting the flow of Qi and blood along the meridians. On the other hand, Chinese herbal formulas can soothe the liver and clear heat, promoting the circulation of Qi and blood, and alleviating stasis of hot toxins in the skin. Combining acupuncture and herbal medicine can effectively relieve symptoms of liver depression transforming into fire type neurodermatitis, promoting orderly circulation of Qi and blood, and restoring normal skin condition. Therefore, this study aims to use acupuncture combined with Longdan Xiegan Decoction to treat liver depression transforming into fire type neurodermatitis, capitalizing on the advantages of both acupuncture points and Chinese herbal medicine to achieve comprehensive treatment from both internal and external perspectives.

Information

A total of 100 patients diagnosed with liver depression transforming into fire type neurodermatitis and treated at the Dermatology Department of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine from July 2022 to June 2023 were enrolled in this study. They were randomly divided into two groups, with 50 patients in each group.The TCM diagnostic criteria were established based on the «Niupixuan» diagnostic criteria from literature [2], combined with the symptoms of liver depression transforming into fire type neurodermatitis, as follows:1.This condition mostly affects middle-aged and young adults, with rare occurrences in the elderly and children. It commonly appears on the neck, nape, and upper eyelids.2.Local itching and lichenified patches are observed, with clear borders and scattered flat papules around the lesion.3.The above symptoms worsen with local stimulation and mental irritability, particularly at night. Other similar skin diseases are

ruled out.4.Clinical manifestations: The skin rash appears red; accompanied by irritability, insomnia with vivid dreams, dizziness, palpitations, bitter taste in the mouth, and dry throat. The tongue edges are reddish and the pulse is taut and rapid.The control group received oral traditional Chinese medicine treatment with the following herbal prescription: Longdancao 20g, Chaihu 15g, Huangqin 10g, Zhizi 10g, Shengdihuang 10g, Cheqianzi 10g, Zexie 10g, Danggui 10g, Hehuanpi 10g, Gouteng 10g, and Gancao 5g. They were administered three times per week, and the treatment efficacy was observed after four weeks.The experimental group received the same herbal prescription as the control group, and acupuncture was applied at the acupoints Quchi, Hegu, Xuehai, Geshu, Taichong, Ganyu, and Ashi. Routine skin disinfection was performed, and the needles were retained for 30 minutes after obtaining qi. The treatment was administered three times per week, and the treatment efficacy was observed after four weeks.Relevant indicators were scored before treatment and one month after the completion of the treatment.

Results and discussion

Before treatment, there were no statistically significant differences (P > 0.05) in gender, age, and duration of illness between the control group and the experimental group, indicating comparability between the two groups.Within-group comparisons: After treatment, both the experimental and control groups showed improvements in the patients' skin lesions, itching severity, sleep quality, daytime mood, overall systemic symptoms, and TCM syndrome scores, with statistically significant differences compared to before treatment (P < 0.01).Between-group comparisons: After treatment, the experimental group demonstrated significantly greater improvements in skin lesions, itching severity, sleep quality, daytime mood, overall systemic symptoms, and TCM syndrome scores compared to the control group, with statistically significant differences (P < 0.05).Comparing the clinical efficacy between the two groups, the total effective rate in the experimental group was 95%, while it was 80% in the control group, showing a statistically significant difference (P < 0.05).The results of this study indicate that the clinical efficacy of the experimental group in treating liver depression transforming into fire type neurodermatitis was significantly superior to that of the control group. Acupuncture combined with traditional Chinese medicine in the form of Longdan Xiegan Decoction has a remarkable therapeutic effect on liver depression transforming into fire type neurodermatitis and deserves widespread application in clinical practice.

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CLINICAL OBSERVATION ON THE EFFICACY OF ACUPUNCTURE COMBINED WITH JIAOTAI PILL IN TREATING HEART-KIDNEY DISHARMONY TYPE INSOMNIA

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Abstract. Insomnia, characterized by unsatisfactory sleep duration and quality, profoundly affects daytime functioning. This study aimed to investigate the clinical effectiveness of acupuncture in treating heart-kidney disharmony type insomnia. Eighty patients were randomly assigned to an experimental group (n=40) receiving acupuncture combined with herbal treatment or a control group (n=40) receiving herbal treatment alone. The experimental group showed a more pronounced improvement in insomnia symptoms (P<0.05) and achieved a higher total effective rate (95%) compared to the control group (80%, P<0.05). These findings demonstrate the notable efficacy of acupuncture and herbal treatment in alleviating heart-kidney disharmony type insomnia.

Keywords: Acupuncture; Herbal treatment; Insomnia; Heart-kidney disharmony.

Introduction

Insomnia is a prevalent sleep disorder characterized by difficulties in initiating or maintaining sleep, leading to impaired daytime functioning and reduced quality of life. Traditional Chinese medicine (TCM) considers insomnia as a manifestation of imbalances in the heart and kidney systems, termed «heart-kidney disharmony type insomnia.» Acupuncture, a widely used TCM therapy, is believed to regulate the flow of vital energy and promote mind-body balance. Additionally, Chinese herbal medicine is employed

to nourish vital energy and restore harmony within the body. Combining these two modalities may offer a comprehensive approach to address the complex nature of heart-kidney disharmony type insomnia.

Objective

To observe the clinical efficacy of acupuncture in the treatment of insomnia of the heart-kidney non-interaction type.

Materials and Methods

To evaluate the clinical efficacy of acupuncture combined with herbal treatment for heart-kidney disharmony type insomnia, a randomized controlled trial was conducted. Eighty patients meeting the diagnostic criteria were randomly allocated into two groups. The experimental group received acupuncture therapy in conjunction with a customized herbal prescription, while the control group received the herbal prescription alone. Various sleep parameters, including sleep onset time, nighttime awakenings, and sleep quality, were assessed using standardized scoring systems before and after the treatment period.

Results and discussion

Both the experimental and control groups exhibited improvements in sleep-related parameters after the treatment ($P<0.01$). However, the experimental group showed more significant enhancements in sleep onset time, nighttime awakenings, and sleep quality compared to the control group ($P<0.05$). Moreover, the total effective rate was markedly higher in the experimental group (95%) than in the control group (80%, $P<0.05$), highlighting the superior clinical efficacy of the combined therapy.

Conclusion

This study provides compelling evidence for the effectiveness of acupuncture in combination with herbal treatment for heart-kidney disharmony type insomnia. The synergistic effects of acupuncture and Chinese herbal medicine are believed to optimize the balance of vital energy and improve the overall sleep-wake cycle. These findings support the integration of TCM approaches as a promising strategy for managing insomnia, particularly in cases characterized by heart-kidney disharmony. Further research and long-term follow-up studies are warranted to confirm and extend these encouraging results and enhance the evidence base for this therapeutic intervention. Ultimately, such integrative approaches may contribute to addressing the global burden of insomnia and improving the overall well-being of affected individuals.

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OBSERVATION ON THE CLINICAL EFFECT OF ELECTROACUPUNCTURE COMBINED WITH SHENQUE POINT APPLICATION IN THE TREATMENT OF SIMPLE OBESITY (PHLEGM-DAMPNESS-FILLED TYPE)

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Abstract. This paper introduces the method of treating simple obesity (phlegm-dampness-filled type) by electroacupuncture combined with Shenque point. According to 70 patients from the 10th outpatient department of acupuncture and moxistry of the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine, they were randomly divided into control group and given electroacupuncture treatment, the experimental group combined with Shenque point on the basis of the control group, and carried out statistical analysis, and concluded that the clinical effect of electroacupuncture combined with Shenque point is better in the treatment of simple obesity (phlegm and humidity inside the excessive type).

Keywords: Simple obesity;Acupoint application;Shenque acupoint;Phlegm dampness in excess;Electroacupuncture

Simple obesity refers to the increase of body mass caused by excessive accumulation of body fat without obvious endocrine and metabolic causes, and the actual body mass exceeds 20% of the standard body mass[1]. With the aggravation of obesity, patients will have low self-esteem, depression, lumbar acid, chest tightness, palpitation and other symptoms, significantly increasing the risk of cardiovascular and cerebrovascular diseases, diabetes, hypertension, hyperlipidemia and other

diseases.Acupoint application can play the dual role of drugs and acupoints and maintain a certain blood drug concentration, so as to achieve the purpose of regulating the function of zang-fu organs and preventing and treating diseases[2]. Therefore, this study intends to use electroacupuncture combined with Shenque point to treat the simple obesity of phlegm-dampness inside and full, give play to the advantages of acupoints and Chinese medicine, and achieve internal and external treatment.

Objective

To explore the clinical effect of electroacupuncture combined with Shenque point application on simple obesity (phlegm-dampness-filled type).

Materials and methods

A total of 70 patients with simple obesity with phlegm-dampness and internal excess were selected from the 10th Room of Acupuncture and moxibustion in the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine from June 2021 to June 2023, and were randomly divided into the control group (35 cases) and the experimental group (35 cases) by using random number table method. The control group was treated with electroacupuncture, and the acupuncture points were Zhongwan, Tianshu, Quchi, Yinlingquan, Fenglong and Taichong. The KWD-808I electroacupuncture instrument of Great Wall brand was selected. The positive and negative poles were connected to Tianshu and Fenglong points on both sides, and the needle was kept for 30min. On the basis of the control group, the application of experimental group was self-designed fat shedding and weight reduction formula, which dried and ground Sanbai, atractylodes, poria, zedoary, rhubarb, xylocarp, silkworm and lotus leaves according to the proportion of drugs, and mixed with Vaseline, honey, glycerin, etc. into a paste. Each paste was taken 5g and placed on PU membrane waterproof transdermal paste to make acupoint paste. The subjects applied acupoint paste to Shenque point of umbilical cord at 9 PM every night and removed it at 7 am the next day for 10 hours each time. Patients in both groups were treated once a day for 6 days, with 1 day rest, for a total of 4 weeks. Obesity-related indicators (body weight, BMI, body fat percentage), body circumference (waist circumference, hip circumference, waist-to-hip ratio) and TCM syndrome scores were measured before and after treatment, and the effectiveness of the experimental group was observed.

Results and discussion

Before treatment, there was no significant difference in gender, age, height, weight and obesity degree between the control group and the experimental group ($P>0.05$), which was comparable. Intra-group comparison: After treatment, body weight, BMI, body fat percentage, waist circumference, hip circumference, waist-to-hip ratio and TCM syndrome score of both experimental and control groups were improved, and the difference was statistically significant compared with before treatment ($P<0.01$). Inter-group comparison: After treatment, the improvement of body weight, BMI, body fat percentage, waist circumference, hip circumference, waist-to-hip ratio and TCM syndrome score in experimental group was greater than that in control group, with statistical significance ($P<0.05$). The clinical efficacy of the two groups was compared, the total effective rate of the observation group was 85.7%, and the total effective rate of the control group was 71.4%, with statistical significance ($P<0.05$). The results of this study showed that the clinical efficacy of the experimental group in the treatment of simple obesity (phlegm-damp internal excess type) was significantly better than that of the control group. Electroacupuncture combined with Shenque point can obviously improve the clinical symptoms of simple obesity with phlegm-dampness and internal excess, and it is worth widely used in clinical practice.

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CLINICAL EXPERIENCE IN PRECISE DIVISION OF HEAD ACUPOINT SELECTION AND ACUPUNCTURE TREATMENT FOR COMPLETE APHASIA AFTER STROKE

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Abstract. Complete aphasia after stroke is due to the clearing of blood stasis, god does not guide qi and can not normal speech, treatment should be to fill the brain, open the sound. In Heilongjiang region, acupuncture mainly focuses on head acupoints, acupuncture uses «brain theology and five zang theology theory» to combine the meridian theory, connecting the traditional acupoint function with brain Brodmann partition, brain network partition and brain fiber bundle function to achieve the precise division. When treating the complete aphasia after stroke, the main point area selects the area, combined with clinical experience, points such as brain point, auditory point, and named points.

Keywords: complete aphasia after stroke, acupuncture

Complete aphasia after stroke is a disorder of verbal communication ability caused by the damage of the language function areas, supplementary areas and their contact fibers of the cerebral cortex. About 70% to 75% of stroke patients have different degrees of language impairment [1].Complete aphasia is the most serious type of aphasia, which clinically shows the severe impairment or almost complete loss of all language function, which seriously affects the daily life and work of patients. Western medicine has no targeted treatment drugs, but traditional Chinese medicine has unique advantages in the treatment of this disease.

At present, acupuncture and moxibustion has considerable advantages in this respect, widely used in clinical treatment, which has improved the quality of life of many patients and become one of the rehabilitation options recommended by international guidelines [2]. Accurate scalp needle zoning based on years of clinical experience of doctors, combined with the brain god, five zang theology of meridian, traditional acupoints as the main coordinate point, according to the acupoints from the lateral line, and according to the brain network partition, brain fiber bundle structure and function, using the brain MRI imaging, DTI imaging and FMMRI imaging technology in the skull surface projection area, accurate partition points, reuse needle, joint needle point area for the unit, complete aphasia after stroke, not only in clinical harvest, and provide theoretical basis for the treatment of the disease.

Objective

To explore the effect of precise partition head acupuncture combined with conventional body acupuncture for complete aphasia after stroke.

Materials and methods

Doctors routinely disinfected the 0.35 mm 40 mm disposable acupuncture needle (Huatuo brand) in Zone, Hanyan-Xuanlu, Zone,Shuaigu-Tianchong-Fubai,,Shangxing-Shenting area, combined with Lieque, Zhaohai, Taixi, Sanyinjiao, Zulinqi and Taichong acupoints. After injection, the rapid twist technique was used, and each hole was applied for about 60s, and the patient was observed to tolerate whether the needle was kept for 40 min.

Results and discussion

After treatment, the patient's speaking, retelling, reading, listening comprehension, CFCP, and ADL scores were significantly improved, and the patient's unfavorable speech was significantly improved, could simply answer questions, memory and understanding were further improved, could think independently, and follow up for half a year.

Acupuncture Hanyan-Xuanlu, Zone, Shuaigu-Tianchong-Fubai, Shangxing-Shenting area, can promote the recovery of speech function of damaged brain nerve cells [3], activate the ipsilateral language central functional network, and complete the auditory perception-language information output pathway [4], so as to improve patients' understanding ability, language ability, writing ability and intelligence. During the period of needle keeping, it can enhance the needle feeling, dredge the meridians and blood of the head after stroke, and open the orifice to restore aphasia. Primary acupuncture Lieque, Zhaohai, Lieque, vein, Zhaohai through the cross vein, two veins and the lung throat; Taixi and Sanyinjiao, can Strengthening the spleen and stomach, tonifying the liver and kidney; acupuncture Zulinqi, Taichong can calming liver wind.

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EFFECT OF TRADITIONAL CHINESE EXERCISE ON THE TREATMENT OF «LONG-COVID»

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Abstract. Since late 2019, there has been a widespread epidemic of coronavirus disease 2019 (COVID-19), and some patients infected with COVID-19 have developed symptoms of long COVID after acute infection control, severely affecting people's lives and work. Traditional Chinese exercise has a long history, with numerous studies proving its effectiveness in the prevention and treatment of COVID-19. Some previous studies only systematically reviewed the effect of TCE on acute covid infection, and there was not enough evidence to support the effect of TCE on persistent fatigue, dyspnea, and cognitive impairment in patients with long-term covid. The purpose of this study was to evaluate the efficacy of traditional Chinese exercise in patients with long COVID and to provide alternative therapy for long COVID.

Keywords: COVID-19, meta-analysis, systematic review, TCE

COVID-19 is an acute, highly transmissible respiratory infectious disease. It has a wide range of clinical presentations and a potentially lethal clinical course from asymptomatic to critically ill. The clinical manifestations and complications, pathogenesis, diagnosis and prognosis of patients in the acute phase of COVID-19 have been systematically described. However, Many COVID-19 patients continue to develop sequelae affecting multiple organ systems after the acute phase, which we have termed long COVID or acute sequelae of SARS-CoV-2 (PASC). Long COVID is a multi-system disorder characterized by persistent fatigue, dyspnea, cognitive deficits, anxiety, and depression1.

Traditional Chinese Exercise (TCE), a form of exercise that combines movement with static, rigidity, and flexibility, includes Tai Chi, Qigong, Eight Brocades, Five-animal Boxing, and Yi Jinjing. TCE is now widely used in the prevention, treatment and rehabilitation of COVID-19 patients with significant efficacy. However, some of the previous studies have only systematically reviewed the effects of TCEs on the acute COVID-19 infection period, and there is insufficient evidence to support the role of TCEs on persistent fatigue, dyspnea, and cognitive impairment in patients with long COVID.

Objective

To conduct a systematic review and meta-analysis to investigate the effects of TCEs on patients with long COVID and to provide methods and rationale for clinical treatment of long COVID.

Materials and methods

In this study, literature searches in the Cochrane Library, Embase, Web of Science, PubMed, the Chinese Biomedical Literature Database, the Chinese National Knowledge Infrastructure Database, the Chinese Science and Technology Journal Database, and the WanFang Database will be conducted to include literature related to randomized controlled trials of traditional Chinese exercise therapy for long COVID. Two researchers independently screened, extracted data, and assessed the methodological quality of each included trial using the Physiotherapy Evidence Database (PEDro) scale, followed by the Cochrane Collaboration organizational tool being used to assess the risk of bias for each study. The data captured in this study were statistically analyzed using comprehensive meta-analysis version 3.0 software.

Results and discussion

In long COVID patients, limb muscles, neuropsychiatric status, heart and respiration show varying degrees of impairment2. In addition, chronic neuroinflammation triggered by COVID-19 infection activates glial cells, which also affects the patient's cognitive ability, executive function, etc.3 There are no widely effective treatments for long COVID, but patient physical activity and exercise tolerance are modifiers of the clinical presentation and prognosis of many chronic diseases, and adherence to

physical activity exercise is strongly associated with a reduced risk of serious outcomes in adult patients with COVID-19.

TCE contributes to the physical and mental recovery of COVID-19 patients TCE not only reduces the erythrocyte sedimentation rate (ESR) and inhibits the secretion of pro-inflammatory cytokines, such as IL-6, CRP, and TNFα , thus alleviating the inflammatory response of COVID-194. Castro et al.5 called for COVID-19 patients to be rehabilitated with Tai Chi to improve cognitive deficits, physical and mental health. TCE requires concentration during exercise, and the human body perspective shifts its gaze with the movement of the limbs, which in turn mobilizes the whole body organs for movement, improves the human body's reaction speed, and improves cognitive dysfunction.

Therefore, this study will identify the TCE modality that has the least adverse effects and is the most effective for patients with long COVID, and provide evidence-based medical support for TCE for long COVID through meta-analysis.

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PROMOTING THE «GOIN GLOBAL» OF TRADITIONAL CHINESE MEDICINE

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Abstract. At present, China continues to promote the policy of «going global» of traditional Chinese medicine. As an important country along the «The Belt and Road», Russia and China have continuously strengthened cooperation in various fields, promoting the development of traditional Chinese medicine in Russia, providing help for the rational and legal development of traditional Chinese medicine in Russia. Also ushered in new opportunities for the development of traditional Chinese medicine in Russia.

Keywords: Traditional Chinese Medicine; Acupuncture; Russia; «The Belt and Road»; Development status

Traditional Chinese medicine is traditional medicine guided by ancient Chinese philosophy. It has an independent knowledge system and diagnosis and treatment mode, which is essentially different from western medicine. In clinical practice, the therapeutic effect of traditional Chinese medicine has been widely recognized by medical practitioners both domestically and internationally, and has continuously gained high attention and importance in the international community. Most scholars believe that integrating traditional Chinese medicine with modern natural sciences is the correct choice. However, in modern medicine, there is a lack of clear concepts about the «principle», « method «, « recipe « and « medicines « of traditional Chinese medicine, which has resulted in it not gaining the same status as Western medicine in Russia or other European countries. At the same time, with the promotion of the «The Belt and Road» initiative, Russia has been influenced by the culture of Traditional Chinese medicine, and the value and advantages of traditional Chinese medicine have been constantly reassessed and explored [1].

A report tells the story of a Russian couple who crossed 6000 kilometers to seek medical treatment in China. In Russia, their daughter was diagnosed with spastic cerebral palsy, unable to sit up alone, difficulty eating, severe salivation, and cognitive impairment. Patients from the same country introduced to them the traditional Chinese medicine treatment (acupuncture, massage, moxibustion, oral Chinese medicine, etc.) provided by Xi'an Traditional Chinese Medicine Brain Disease Hospital for this disease. After 3 months of systematic treatment, the patient's limb spasms decreased, lower limb muscle tension significantly decreased, facial expressions became active, and her swallowing and chewing abilities greatly improved. Cooperation and exchange in the field of health care is an important part of the construction

of the «The Belt and Road». It not only receives patients from countries along the line to «welcome in», but also actively promotes the «going global» of traditional Chinese medicine [2].

At present, the limited development of traditional Chinese medicine in Russia has not been effectively resolved. In the Russian healthcare system, only acupuncture reflex therapy has been officially granted legal status, while traditional Chinese medicine and herbal medicine have not been given much attention, and traditional Chinese herbal medicine has always been imbued with the cultural characteristics of indigenous peoples (non natural scientific nature). Therefore, compared to acupuncture, the promotion and recognition in Russia may be difficult, but interest in the integration of traditional Chinese and Western medicine is reviving in the government and various medical institutions in various industries. Attaching importance to the «The Belt and Road» initiative can help promote the development of traditional Chinese medicine in Russia. In addition, the Russian government and relevant organizations need to make efforts to promote traditional Chinese medicine in Russia, support the rational and legitimate development of traditional Chinese medicine in Russia, let more people understand traditional Chinese medicine, and make it widely used and recognized in the medical field [3].

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CLINICAL OBSERVATION ON THE TREATMENT OF DEPRESSION OF QIYU-HUAHUO-TYPE BY TONG DU XIE GAN ACUPUNCTURE MANIPULATION

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Abstract. Depression, as a focus issue in the medical field in recent years, is also a hot disease that has attracted much attention from the global public. The disease is chronic and recurrent[1], and the prevalence rate is approaching 4.2%[2], becoming one of the most susceptible diseases and a threat to human life and health. In 2020 depression turned into the 2nd largest category of disease burden ever originated, second to cardiovascular system diseases[3]. Therefore, through the summary and generalization of the many years of clinical experience of the tutor, Professor Zou Wei, this project adopts the method of Tongdu Diarrhea Liver Acupuncture for the treatment of qi depression and fire-type depression patients, based on the traditional Chinese medicine acupuncture treatment of depression as the basis for the selection of acupuncture points, through the reference and modification of clinical use of the therapeutic effect is quite good, with an important value of the research and study. This project aims to explore better treatment options for acupuncture treatment of depression, to provide a reference basis for acupuncture therapy, and to optimize the idea of acupuncture point selection so that it can be inspired and expanded.

Keywords: Qiyuhuahuo-Type, TongDu XieGan, Depression, Acupuncture

Objective

To observe the clinical efficacy of acupuncture in the treatment of Qiyuhuahuo-type depression, to evaluate its therapeutic effect, and to provide effective treatment for depression.

Methods

A total of 60 patients with Qiyuhuahuo-type depression were selected for this study. A randomized controlled trial was used, and 30 cases each were divided into observation and control groups. The observation group used Baihui, Shenting, Yintang, Shuigou, Shendao through Lingtai, Fengchi, Shaofu, Jianshi, Zuqiaoyin and Dadun; the control group used Baihui, Shuigou, Neiguan, Shenmen, Taichong, Xingjian and Xiaxi, each time retaining needles for 50 minutes, treating 6 days a week, and assessing the efficacy after 4 weeks of acupuncture. SPSS26.0 statistical software was used to analyze and compare the Hamilton Depression Score Scale, Self-rating Depression Scale and TCM evidence points before treatment, 2 weeks of treatment and 4 weeks of treatment; and the 7-factor scores of HAMD-24 items were compared before and after treatment, and the clinical efficacy was evaluated by the HAMD-24 item reduction rate.

Results and discussion

1. General information and observation indexes of the two groups of patients were tested with P > 0.05, which was not statistically noteworthy and comparable.

2. The HAMD-24 items, SDS self-assessment scale and TCM evidence score before and after 2 weeks of treatment were compared between the two groups, and P > 0.05, which was not statistically significant; the comparison among the two groups after 2 weeks of treatment was P > 0.05, which was not statistically momentous.

3. The comparison of HAMD-24 items, SDS self-rating scale and TCM symptoms scores before and after 4 weeks of treatment between the two groups was statistically substantial at P < 0.05; the comparison between the two groups after 4 weeks of treatment was statistically significant at P < 0.05.

4. When comparing the 7-factor scores of HAMD-24 items before and after treatment between the two groups, P < 0.05 was statistically significant for anxiety/somatization, sleep disturbance, blockage and cognitive impairment; P > 0.05 was statistically insignificant for day and night changes, despair and weight. When comparing the HAMD-24 7-factor scores after 4 weeks of treatment between groups, P < 0.05 was statistically significant for anxiety/somatization, sleep disturbance, blockage, and cognitive impairment; P > 0.05 was statistically insignificant for day and night changes, despair, and weight.

5. Comparing the efficacy of the two groups, the total effective rate of the observation group was 83.33% and the total effective rate of the control group was 75.86%, P < 0.05, which was statistically significant.

Conclusion

1. Acupuncture means of TongDu XieGan is an effective way to treat depression with the Qiyuhuahuo-Type, and its efficacy is well than that of the conventional acupuncture method.

2. Both the TongDu XieGan acupuncture method and the conventional acupuncture method improved patients' anxiety/somatization, sleep disturbance, blockage, and cognitive impairment, but the TongDu XieGan acupuncture method improved more than the conventional acupunctu

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GINSENOSIDE RB1 AGAINST NONALCOHOLIC FATTY LIVER BY MODULATING THE GUT MICROBIOTA

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Abstract. The nonalcoholic fatty liver disease (NAFLD) model in rats was induced by high-fat diet (HFD). H&E staining and lipid level detection were used to determine the therapeutic effect of ginsenoside Rb1 (Rb1) in NAFLD rats. 16S rRNA gene sequencing was used to evaluate the effect of Rb1 on the composition of gut microbiota (GM) in NAFLD rats. The results showed that Rb1 remarkably reduced liver injury, hepatic steatosis and inflammatory cell infiltration. as well as ameliorated dyslipidemia. Mechanistically, Rb1 altered the composition of the GM, which was characterized by the enrichment of Lactobacillus, Oscillospira and Blautia, and the reduction of Desulfovibrio, accompanied by decreased ratio of Firmicutes/Bacteroidetes (F/B) and increased alpha diversity.

Keywords: nonalcoholic fatty liver disease, dyslipidemia, gut microbiota

Nonalcoholic fatty liver disease (NAFLD) refers to macrovesicular steatosis in more than 5% of liver cells in the absence of alcohol or drugs. NAFLD has become the most prevalent chronic liver disease worldwide, with a global prevalence of more than 25%. Excessive deposition and degeneration of hepatocellular fat is the main pathological characteristic of NAFLD, which can lead to hepatocellular injury and fibrosis. Therefore, there is a necessity to develop more drugs with better safety and efficacy in order to expand clinical drug choices.

As an important component of co-evolution with the host, the gut microbiota (GM) has been shown to be closely related to the pathogenesis of metabolic disorders. Thus, targeting GM has been recognized as a new strategy for the prevention and treatment of NAFLD. Traditional Chinese medicine

(TCM) and their derived natural compounds have attracted increasing attention in clinical management of NAFLD due to the advantages of extensive pharmacological activities, fewer side effects and significant curative effect. Ginsenoside Rb1 (Rb1) is the main active ingredient of saponins, which is widely found in ginseng, and has a variety of pharmacological properties. Increasing evidence has demonstrated that Rb1 attenuates hepatocellular steatosis and improves insulin resistance, suggesting a potential therapeutic role for Rb1 in NAFLD.

Objective

The purpose of this study is to investigate the therapeutic effect of Ginsenoside Rb1 on NAFLD rats and its ability to modulate gut microbiota.

Materials and methods

The male Sprague-Dawley rats were allocated as follows (n = 10): Control group, NAFLD model group and Rb1 treated group. Constructing a NAFLD model by feeding HFD for 8 w. Starting from the 9th week, the Rb1 rats were intragastric administration of the Rb1, once a day for 4 w. At the end of the administration, blood, liver and fecal samples were collected and subjected to HE staining, lipid level determination and 16S rRNA gene sequencing.

Results and discussion

In this study, we investigated the protective effects of HQCFT against NAFLD in vivo, including the modulation of dyslipidemia, alleviation of liver injury and hepatic steatosis. In addition, we focused on the modulatory effects of Rb1 treatment on GM in NAFLD rats.

In our study, Rb1 treatment restored the microbial diversity and species richness, decreased the F/B ratio. Low alpha diversity and increased F/B are commonly used as features to evaluate dyslipidemia, which are usually reversed after NAFLD treatment. Lactobacillus and Blautia have been shown to regulate lipid metabolism disorders and anti-inflammatory, exerting a probiotic role in NAFLD. Oscillospira, an anti-inflammatory related bacterium, has been shown to have a significant negative correlation with liver injury. Desulfovibrio promotes endotoxin production, disrupts intestinal barrier function and induces a systemic inflammatory response, which is usually manifested in high abundance in NAFLD patients. Rb1 intervention upregulated the abundance of Lactobacillus, Oscillospira and Blautia and downregulated Desulfovibrio in NAFLD rats.

In conclusion, this study reveals that Rb1 attenuates hepatic steatosis and improves serum lipid levels for the effective treatment of HFD-induced NAFLD. And such anti-NAFLD properties of Rb1 might be partly due to the remodeling of intestinal microecology, including increasing microbial diversity and altering the gut microbial composition.

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SALVIA MILTIORRHIZA: AN ANCIENT CHINESE HERBAL MEDICINE AS A SOURCE FOR ANTI-OSTEOPOROTIC DRUGS

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Abstract. Red sage (Salvia miltiorrhiza Bunge), also known as Danshen in Chinese, has been used historically and is currently exploited in combination with other herbs to treat skeletal diseases in traditional Chinese medicine (TCM). Modern pharmacological studies have found that salvia miltiorrhiza and its active ingredients can intervene in multiple links of the progression of osteoporosis: promoting the differentiation of mesenchymal stem cells into osteoblasts; It promoted the proliferation and mineralization of osteoblasts. Inhibition of osteoblast apoptosis; Correction of oxidative stress in vivo to promote bone formation; Regulate the balance of osteogenic and adipogenic differentiation in bone marrow microenvironment; It inhibits osteoclast differentiation, proliferation and bone resorption. This review focuses on the exact mechanism of the anti-osteoporosis effect of Salvia miltiorrhiza in vivo.

Keywords: Chinese traditional medicine; Salvia miltiorrhiza; osteoporosis

Osteoporosis is a systemic bone metabolic disease characterized by decreased bone mass and degeneration of bone microstructure. It is accompanied by decreased bone strength, increased bone fragility and increased risk of fracture. Its basic pathogenesis is that the dynamic balance of bone remodeling is destroyed, and the function of osteoblasts and osteoclasts is unbalanced, resulting in bone metabolism imbalance, increased bone resorption and decreased bone formation, and eventually bone resorption is much greater than bone formation and bone mass loss.

Salvia miltiorrhiza is a perennial plant that mainly grows in the Sichuan, Anhui, Jiangsu, Henan, and Shanxi provinces of China. Its root is usually harvested in spring or autumn every year. Salvia miltiorrhiza has the functions of activating blood circulation and removing blood stasis, clearing meridians and relieving pain, clearing the heart and eliminating irritation, cooling blood and eliminating carbunccosis. It is mainly used in the treatment of cardiovascular and cerebrovascular diseases, Alzheimer's disease, Parkinson's disease, renal insufficiency, liver cirrhosis, tumor, bone loss and other diseases.

Objective

To explore the mechanism of Salvia miltiorrhiza on osteoporosis.

Materials and methods

Literature sources used were Pubmed, CNKI.net, Cqvip.com, PubChem, and the Web of Science. For the inquiry, keywords such as Salvia, danshen, osteoporosis, bone, osteoclast and osteoblast were used in various combinations.

Danshentsu may improve bone ultrastructure and increase bone mass by increasing the expression of TGF-β in glucocorticoid-induced osteoporosis rats [1]. Guo Wei [2] et al. found that tanshinone IIA could increase the proliferation rate of rat bone marrow mesenchymal stem cells (BMSCs) cultured in vitro. Tanshinone IIA increased the mRNA expression of BMP-2, Runx2, ALP, and Collagen-1, and increased the level of bone mineralized matrix, suggesting that tanshinone IIA may promote the differentiation of BMSCs into osteoblasts by increasing the expression of BMP-2. Danshansu can promote the differentiation and mineralization of primary cultured rat osteoblasts, which may be related to the activation of Wnt /β-catenin pathway [3]. Studies have shown that cryptotanshinone also inhibits osteoclastogenesis of bone marrow-derived macrophages in vitro by inhibiting RANKL-mediated ERK phosphorylation and NF-κB activation [4]. In addition, Nicolin et al. found that tanshinone VI inhibited osteoclast differentiation and F-actin ring structure by inhibiting RANKL /NF-κB pathway [5].

Results and discussion

Salvia miltiorrhiza can promote the proliferation, differentiation and bone formation of osteoblasts and inhibit the proliferation, differentiation and bone resorption of osteoclasts through multiple signaling pathways, so as to correct the balance of bone metabolism and block the development of osteoporosis.

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TO STUDY THE EFFECT OF WUWEI SHENQIN DECOCTION ON PULMONARY FIBROSIS BASED ON CHINESE AND RUSSIAN TRADITIONAL MEDICINE

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Abstract. Pulmonary fibrosis is a progressive disease characterized by dyspnea and hypoxemia with a high fatality rate. At present, the internationally recognized treatment methods include the use of glucocorticoids, antacids and immunosuppressants, but their clinical efficacy remains to be further observed, and there are many adverse reactions. Chinese medicine mainly comes from natural animals and plants, minerals and processed products, etc., with a variety of active ingredients, under the principle of overall adjustment, through the unique coordination theory of traditional Chinese medicine, taking into account a variety of pathological factors, using the treatment principles of supplementing qi, removing blood stasis, eliminating phlegm, etc., the treatment effect of pulmonary fibrosis is better. This paper introduces the effect of Wuwei Shenqin Decoction on pulmonary fibrosis in rats. The degree of pulmonary fibrosis was detected by HE staining, ELISA kit, RT-PCR and Western blot. The results showed that warming lung and activating blood decoction played an important role in delaying the formation and development of pulmonary fibrosis. Wenfeihua Decoction may have an intervention effect on regulating Nrf2 pathway in bleomycin induced pulmonary fibrosis.

Keywords: Wuwei Shenqin Decoction; Pulmonary fibrosis; Nrf2 pathway; Antioxidant; Traditional Chinese medicine

Pulmonary fibrosis (PF) is a diffuse pulmonary inflammatory disease caused by a variety of reasons, mainly involving the pulmonary interstitium, often involving alveolar epithelial cells and pulmonary vessels, the incidence of which shows an obvious rising trend in China. Pulmonary fibrosis is a progressive, destructive and basically irreversible disease. Current treatments have little effect, and the average survival after diagnosis is 2-5 years [1,2]. In recent years, domestic and foreign experts have proposed that oxidative stress caused by oxidation/antioxidant imbalance is one of the important pathogenesis mechanisms [3]. Nrf2/ARE signaling pathway can regulate the expression of antioxidant protein and phase II detoxification enzyme, and play a protective role in the body through antioxidant, as an important antioxidant regulatory pathway in the body. It has become a focus of multidisciplinary research.

Objective

To investigate the anti-oxidation effect of Wuwei Shenqin Decoction on bleomycin-induced pulmonary fibrosis in rats and its pathway.

Materials and methods

Fifty SD rats were randomly divided into normal group, model group, Wuwei Shenqin Decoction high, Wuwei Shenqin decoction medium and Wuwei Shenqin decoction low dose groups, with 10 rats in each group. The rat model of pulmonary fibrosis was established, and the rats in the administration group were administrated with Wuweshenqin Decoction at the same time for intervention. The rats were killed on 28 days. The pathological structure changes of lung tissues were observed by HE staining, and the contents of SOD, GSH-Px and CAT in lung tissues were detected by enzyme-linked immunoadsorption (ELISA) kit. The expression of Nrf2 was detected by RT-PCR and Western blot.

Results and discussion

The contents of SOD, GSH-Px, CAT and Nrf2 in lung tissue were detected in this study. Compared with the control group, the expression level of Nrf2 in the nucleus of the pulmonary fibrosis group, the medium and high dose Wuweichenqin Tang treatment group was increased ($P<0.05$), and the difference was statistically significant, that is, the content of Nrf2 in the lung tissue of rats in the blank group was the lowest, which was consistent with literature reports, indicating that the modeling of the pulmonary fibrosis model of rats induced by bleomycin was basically successful. Compared with the model group, the Nrf2 expression level of Wuweshenqin Decoction in the high-dose treatment group was increased, and the difference was statistically significant ($P<0.01$), indicating that the Nrf2 index in the lung tissue of experimental rats was significantly changed after the application of high dose. Compared with the low dose Wuweichenqin Decoction treatment group, the above indexes in the

medium and high dose Wuweichenqin decoction treatment group were significantly improved (P<0.05), indicating that the medium and high dose were the effective drug concentration. However, there was no statistical significance between the medium and high dose Wuweichenqin decoction treatment groups (P>0.05), and the difference was not statistically significant, that is, the Nrf2 indexes in the lung tissue of experimental rats were not significantly changed after the application of medium and high dose.

To sum up, Wuweichenqin Decoction may play an intervention role in experimental pulmonary fibrosis by increasing Nrf2 protein. This study only briefly discussed the role of Nrf2 expression in the formation of pulmonary fibrosis. The specific mechanism of action and whether other pathways work together to interfere with the formation and development of pulmonary fibrosis need to be further studied.

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RESEARCH PROGRESS OF TRADITIONAL THERMOTHERAPY IN THE TREATMENT OF KNEE OSTEOARTHRITIS

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Abstract. Knee osteoarthritis is a common degenerative disease of knee joint in clinic, which has the characteristics of high incidence and high teratogenic rate. It is mostly caused by fatigue, physical weakness and the invasion of pathogenic wind, cold and dampness. Different thermotherapies have been widely used in the treatment of knee osteoarthritis. By searching the literatures of traditional thermotherapy for KOA in recent years in various databases, the research progress in the treatment of knee osteoarthritis was reviewed, so as to provide more choices and thoughts for the selection of treatment schemes for KOA.

Keywords: thermotherapy, Knee osteoarthritis, research progress

Traditional thermotherapy is a kind of external treatment of traditional Chinese medicine, which takes various heat sources as mediators and finally acts on the local or whole body to achieve the purpose of treatment. After thermal stimulation, local blood vessels can be dilated, blood circulation can be improved, early inflammation can be dissipated, and immunity and repair ability of the body can be enhanced. It has the advantages of simplicity, convenient use, lasting action and no absorption by gastrointestinal tract [1]. At present, the commonly used traditional heat therapy mainly includes: hot compress, wax therapy, moxibustion therapy and so on.

Knee osteoarthritis (KOA) is a common chronic degenerative disease of knee joint in clinic, also known as «bone arthralgia» and «crane knee wind», which mostly occurs in people over 50 years old, among whom the prevalence rate of knee osteoarthritis in people over 75 years old is as high as 80%, and those who are seriously ill are easy to be disabled. The disease has affected the health and quality of life of some elderly people, so the application of different traditional heat therapies for syndrome differentiation and treatment has gradually been accepted by more patients.

Objective

This study reviews the research progress of traditional thermotherapy in the treatment of knee osteoarthritis by searching the literature of traditional thermotherapy in various databases in recent years, in order to understand the latest progress of various traditional therapies in the treatment of KOA and provide new thinking for the selection of treatment schemes for KOA.

Materials and methods

CNKI database, Wanfang database, VIP database, Chinese biomedical literature service system, Pubmed and Embase were searched by computer. Subject retrieval or full-text retrieval was carried out with related keywords such as ‘ thermotherapy ‘, ‘ knee osteoarthritis ‘, ‘ research progress ‘ and so on.

Results and discussion

1. Hot compress therapy

It refers to a therapy that puts hot objects on the affected part of patients to relieve or eliminate pain. On the one hand, its therapeutic principle can dilate the capillaries of the skin, accelerate the metabolism of the body and promote the dissipation of inflammation, thus alleviating the soft tissue injury of the knee joint, on the other hand, it can play a dual role of heat and medicine.

2. Moxibustion therapy

Moxibustion therapy is a kind of external treatment of traditional Chinese medicine, which uses moxa as the main material and stimulates local skin or a specific acupoint after burning, thus regulating the physiological function of the body [2]. The warm stimulation of moxibustion has the biological effect of relaxing blood vessels, which is not limited to local superficial blood vessels, but also effective for deep and distal blood vessels.

3. Cupping therapy

Also known as «cupping», by using cupping as a tool, the air in the cupping can be exhausted by combustion, air extraction and other methods, resulting in negative pressure, so that the cupping can be adsorbed on the corresponding body surface, causing local congestion or blood stasis, thus achieving the effects of warming meridians, activating collaterals, reducing swelling and relieving pain [3].

4. Wax therapy

The local warming effect produced by wax therapy can increase the extensibility of collagen fiber tissue, thus softening the attached connective tissue and increasing joint mobility.

Traditional thermotherapy is not only a method to treat KOA, but also a method to prevent and treat KOA. Clinical treatment should choose appropriate treatment methods according to the physiological characteristics and severity of KOA patients. The combination of traditional thermotherapy and modern thermotherapy will also provide new ideas and directions for the treatment of KOA diseases.

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FINGERPRINT ANALYSIS OF EVODIA OFFICINALIS WITH DIFFERENT EXTRACTION METHODS BASED ON CLUSTER ANALYSIS

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Abstract. On the basis of establishing HPLC fingerprint of vinegar extract of Evodia officinalis, it was clear whether there were differences in composition. Modern pharmacological research [1]. Studies have shown that evodiamine alkaloids may be the material basis for the treatment of hypertension.To further optimize the extraction process of Fructus officinalis vinegar mixed extract, prepare gel paste of Fructus officinalis vinegar mixed extract, fit the transdermal mathematical model, and preliminatively study the efficacy and mechanism of antihypertensive.

Keywords: Fingerprinting; Vinegar blended evodia; Acupressure point application; Hypertension

Objective

To prepare a gel paste of Evodia vinifolia extract, to study the transdermal absorption and antihypertensive efficacy of in vitro, and to preliminarily explore the scientific connotation of Evodia powder for the treatment of hypertension.

Materials and method

The 10 batches of Evodia officinalis originated from 3 producing areas in Jiangxi, Zhejiang and Hunan, and were identified as the dried and nearly mature fruits of E. rutaecarpa (Juss.) Benth of Rutaecarpa family by the Teaching and Research Department of Traditional Chinese Medicine Identification, College of Pharmacy, Heilongjiang University of Chinese Medicine, In line with the requirements of the Chinese Pharmacopoeia 2020 edition of medicinal materials and herbal pieces. Fingerprint study based on clustering and principal component analysis of different extraction methods

of Evodia. HPLC method established the fingerprint of evodia aqueous extract and vinegar aqueous extract, and the chromatographic peak was identified by the reference substance. The chemical pattern analysis method was used to analyze the components, and the differences between the extract components were obtained by comparing different extraction methods.

Result and conclusion

The established fingerprint chromatographic conditions of evodia extract were: DIKMA C18 column (250mm×4.6mm, 5μm); Acetonitrile (B)-0.2% phosphoric acid water (A) mobile phase, elution procedure: 0-20min, 5% B-10%B; 20-40min, 10%B-18%B; 40-53min, 18%B-25%B; 53-58min, 25%B-38%B; 58-59min, 38%B-43%B; 59-85min,43%B-49%B; 85-90min, 49%B-100%B. The detection wavelength is 220nm, the column temperature is 30 °C, the flow rate is 1.0ml/min, and the injection volume is 10μl.The methodology meets the requirements. The established fingerprint had 23 common peaks, and the control substance identified 6 of them, namely peak 8 chlorogenic acid; Hypericin No. 13; Peak 17 dehydroevodiamine; Peak 19 limonin; No. 22 peak evodiamine; No. 23 peak evodia sub-alkali 6 index components. Ten batches of Evodia water samples from different origins and 10 batches of vinegar water extracted Evodia samples were compared, and the similarity was greater than 0.9.

There are differences between the components of evodia extracted by vinegar water and water extraction, and the former can increase the dissolution of alkaloids. The vinegar-toned evodia gel paste process prepared by this institute has a work ability, the appearance of the gel paste is flat and uniform, the stability is good, the comprehensive score is high, and the in vitro transdermal has a sustained release effect, which is in line with the Weibull model. The antihypertensive effect of vinegar evodia gel paste is better than that of water extract gel paste and vinegar evodia powder application.

Cluster analysis is a multivariate statistical method, which integrates the idea of «birds of a feather gather» into statistical methods, and can gather a large number of similar samples and data into clusters [2]. Its main feature is to divide all samples into different categories, with small differences within the class and large differences between the classes. In this way, the commonness and difference of samples can be reflected through intra-class and inter-class distinctions.

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RESEARCH PROGRESS OF CHINESE MEDICINE IN THE TREATMENT OF HYPEROLACTINEMIA MENSTRUAL DISORDERS

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Abstract. Hyperprolactinemia (HPRL) is an endocrine disease caused by dysfunction of Hypothalamus-Pituitary-Gonadal axis and abnormally high serum PRL level (>25 μg/L in women), which is mainly manifested as menstrual disorders, infertility, amenorrhoea, and breast milk overflow, and in severe cases, it may involve endocrine, reproductive, and nervous systems.

Keywords: Hyperprolactinemia, Liver, Spleen, Kidney, Motherland medicine, Menstrual disorders

Objective

Combination of Chinese and Western medicine to treat HPRL, from the cause of the disease to the type of disease, combined with meridian and acupuncture, to help women alleviate the side effects of drugs as well as the chances of recurrence of the disease. Satisfy women's expectations of life.

Materials and methods

For HPRL, the modern medicine mostly adopts Dopamine agonists for treatment, but this treatment has the disadvantages of drug side effects and recurrent condition, etc. By collecting the identification and typing of HPRL in Chinese medicine in the past 5 years, the progress of

Chinese medicine's diagnostic and therapeutic research on HPRL is now summarized as follows:

Results and discussion

1. Etiology and mechanism of disease

From Liver theory, Spleen and Kidney the same treatment: Zhang Guangde etc. [1] Chinese medicine believes that the woman with the liver as the innate, If the liver lost its control and could not reach down to the menses , it would run up to the breast and turn into breast milk overflowing. Seven emotions hurt the liver is easy to become stagnant, so the treatment of HPRL when the liver as the key. «Kidney is decanter, liver is ethyl wood», Liver and Kidney have the same origin, hide and drain to cooperate; « Seeing the disease of liver, know the liver passes to the spleen», the spleen is the source of Qi and Blood generation, so the treatment of the disease should be the same as the treatment of the Liver, Spleen and Kidney.

From the theory of QiJi: Clinically, it can be seen that HPRL is often accompanied by symptoms of QiJi disturbance, such as sighing or anger, Breast or chest pain, dysmenorrhea, amenorrhea, etc. The Liver's drainage, the Heart's transportation, the Spleen's transportation, the Lung's propagation and purification, the Kidney's sealing, «The pivot machine is good and all the QiJi to turn» each organ lifting and lowering in an orderly manner in order to perform their duties, the organism is calm and peaceful.

From Phlegm and Blood stasis theory of treatment: Doctors believe that Phlegm and Blood stasis run through the development of diseases, all the refractory diseases, chronic diseases are mostly related to Phlegm and Blood stasis, the both of them are the cause and effect of each other, Based on this theory, Lu Lifen etc. [2] apply Sun's Huatong Decoction to resolve Phlegm and Blood stasis, regulate ChongRen, and improve the symptoms of Menstrual disorders in patients.

2.Traditional Chinese Medicine (TCM) treatment

2.1 Staged Treatment: Guo Yun etc. [3] believed that HPRL was rooted in Liver depression and Kidney deficiency, on the basis of which it was divided into three types: Phlegm-heat accumulation, Phlegm and blood stasis, and Heart-kidney noninterchange type; whereas Li Hong etc. [4] dialectically classified it into Liver depression and Qi stagnation , Liver depression and Kidney Yang deficiency, Liver depression and Kidney deficiency, Phlegm-dampness resistance, and Spleen deficiency and Blood stasis; And Professor Yu Zengrui[5] classified HPRL into Liver-depression and Spleen deficiency and Blood weakness type, Liver-depression and Qi stagnation , Spleen-Kidney Yang deficiency, Spleen deficiency and Phlegm obstruction, Spleen deficiency and Blood stasis .

2.2 Acupuncture Treatment: Wei Yilan etc.[6] mainly used electroacupuncture combined with ascupoint injections: Guanyuan, Guilai, Zigong, Zusanli, Sanyinjiao and other acupoints were selected; Or given with the addition and subtraction of Xiaoyaosan, supplemented with acupuncture on the main acupoints of the Zigong, Luanchao, and zhongji, etc. For those with kidney deficiency, Taixi, for those with phlegm-dampness, Fenglong, and for those with liver-depletion, Taichong and Hegu, with an overall effective rate of 95.24%, and a pregnancy rate of 68.6%.

2.3 Chinese and western medical treatment: Zhang Jinfeng etc. [7] can apply the Xiaoyaosan combined with Mianhuai decoction with Bromine to treat patients with HPRL menses disorders of Liver stagnation and stagnation .

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ACUPUNCTURE COMBINED WITH WELL LANCET THERAPY FOR LIMB NUMBNESS CAUSED BY THALAMIC STROKE

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Abstract. Objective To investigate the clinical efficacy of acupuncture combined with pricking blood therapy of Jing acupoints in the treatment of limb numbness caused by thalamic stroke. Methods: A total of 46 patients with limb numbness caused by thalamic stroke were divided into experimental group and control group□n=23□, with conventional acupuncture and pricking blood therapy of Jing acupoints in the experimental group and only conventional acupuncture in the control group. The sensory impairment scores of the two groups after treatment were observed. Outcome; The efficacy of the experimental group was significantly better than that of the control group, and the difference was statistically significant (P<0.05). Conclusion: Acupuncture combined with pricking blood therapy of Jing acupoints can significantly improve the symptoms of limb numbness.

Keywords: Thalamus; Stroke; Acupuncture; Blood pricking therapy of Jing acupoints; Numbness of the limbs

China accounts for one-fifth of the world's population, but the number of stroke patients is the largest in the world. Limb numbness is a common accompanying symptom after stroke, which often causes the psychological and living burden of patients and affects the quality of daily life learning. It is now observed that conventional acupuncture treatment combined with Jing acupoints blood pricking therapy is used to treat limb numbness caused by thalamic stroke.

Objective

To assess whether conventional acupuncture combined with Jing acupoints blood pricking therapy is better than conventional acupuncture for extremity numbness after thalamic stroke.

Materials and methods

Through clinical observation and comparison, 46 patients (from the five departments ward of acupuncture and moxibustion of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine) were divided into two groups using random number table method. Among the 23 cases in the experimental group, 15 were males and 8 were females; mean age (57.43±7.76); Among the 23 cases in the control group, 13 were males and 10 were females; The mean age (58.00±7.10), compared with the general data of the two groups, was not statistically significant (P>0.05).

Experimental group: Acupuncture and pricking blood therapy of Jing acupoints treatment.

Control group: Acupuncture treatment; Select acupuncture points and perform the same as experimental group.

The efficacy comparison was based on the sensory impairment rating score scale (modified Fugl-Meyer and Lindmark evaluation method [1]), with a standard score of 42 points; Minimum 0 points, maximum 42 points.

Results and discussion

This study showed that the effective rate reached 91.3% after treatment in the experimental group; In the control group, the effective rate was 56.5%, and the treatment effect of the experimental group was significantly better than that of the control group (P<0.05, the difference was statistically significant).

The thalamus is an important part of the human nervous system and is involved in regulating the sensory, visual, autonomic nervous system, etc. [2] If the thalamus is damaged or damaged, sensory information in some parts of the body cannot be transmitted to the brain normally, resulting in symptoms of paresthesia, such as numbness, hyperesthesia, pain, etc[3]. In TCM theory, acupuncture is believed to be able to harmonize yin and yang and correct and dispel evil, so as to achieve the purpose of treating diseases. Modern research has shown that acupuncture improves microcirculation in stroke patients, which allows blood to run smoothly. By piercing the meridian acupoints or affected parts of human lesions, the prickly bloodletting method releases an appropriate amount of blood, so as to achieve the purpose of dispelling evil spirits, dispersing stasis, activating blood, and unclogging meridians, and has a good effect on improving microcirculation stasis, tissue blood supply deficiency and hypoxia. The choice of Jing acupoints is because most of the Jing acupoints are located at the end of the limb, where the nerve endings are rich, the feeling is more sensitive, and when operating, it is easier to let the meridians flow smoothly, the meridians are smooth, the qi and blood can run smoothly, and the sensitive nerve endings will also be restored.

Conventional acupuncture can improve brain lesions in stroke patients, Jing acupoints blood pricking therapy can improve local symptoms, the combination of the two is easier to achieve better results than a single treatment, in the clinic, patients who choose acupuncture treatment usually do not refuse Jing acupoints blood pricking treatment, because Jing acupoints blood pricking treatment

will be more convenient and faster than acupuncture treatment, so the combination of the two is worthy of clinical reference application.

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PHARMACODYNAMIC STUDY OF GOUPI PLASTER ON KNEE OSTEOARTHRITIS

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Abstract. In this study, a model of knee osteoarthritis (KOA) in rabbits was treated with Goupi plaster (GP). Knee cartilage pathology was analyzed and plasma levels of inflammatory factors (interleukin (1L)-1β, 1L-4, 1L-6, 1L-17) were measured before and after 15 days of treatment with GP. Our study discovered that the structural damage and inflammatory infiltration of knee cartilage in the KOA models were improved and the levels of plasma 1L-1β, 1L-6, and 1L-17 were significantly reduced in the rabbits with KOA, while the level of 1L-4 was significantly increased after GP administration. These results indicate that GP can effectively restore the the changes in cartilage damage and altered plasma levels of inflammatory factors caused by KOA in the rabbit model, thereby achieving the therapeutic goal of treating KOA.

Keywords: Goupi Plaster, Knee Osteoarthritis, Pharmacodynamic Effect

Goupi Plaster (GP) is a classic Black Plaster that is prepared by heating vegetable oils containing active ingredients from herbs with lead oxide at high temperatures. It invigorates blood circulation to remove blood stasis. It has traditional use for treating arthralgia.

Knee osteoarthritis (KOA) is a degenerative disease that is characterized by articular cartilage degeneration and lesions in subchondral and periarticular bones. During the KOA disease process, the changes in inflammatory factors can be used to assess the progression of the disease. IL-1β promotes inflammation and chondrocyte apoptosis, leading to joint destruction1. IL-4 inhibits the synthesis of matrix metalloproteinases in chondrocytes induced by IL-1. Additionally, the expression of IL-6 has a significant impact on the metabolic activity of chondrocytes and can lead to the destruction of the cartilage matrix2. Furthermore, IL-17 accelerates the degradation of articular cartilage by stimulating the expression of inflammatory factors like IL-6 and IL-83.

Objective

The pharmacodynamic effects of GP, a traditional Chinese medicine external preparation, for the treatment of KOA were evaluated by pathological analyses of the knee cartilage in a rabbit model and determination inflammatory factors in the plasma of the knee. This evaluation will serve as a basis for further analysis and research on GP.

Materials and methods

Male New Zealand rabbits (weighing 2.5 ± 0.2 kg) were randomized into three groups (control group, model group, and GP group). Rabbits from model group and GP group by combining cold stimulation and drug induction to establish KOA models, and subsequently rabbits from GP group were treated with GP for 15 days.

Blood samples were collected from the ear margin vein of rabbits on days 0 and 15 of administration for subsequent analysis. These processed plasma samples were then utilized for enzyme-linked immunosorbent assay (ELISA) to detect the levels of IL-1β, IL-4, IL-6, and IL-17, respectively. Rabbits were sacrificed by air embolism to obtain the knee cartilage. Hematoxylin-eosin (HE) staining was performed and pathological sections prepared. Tissue morphologies were microscopically investigated.

Results and discussion

The results show that cartilage structures of knee joints in the MOD group were disordered and chondrocyte morphologies were abnormal, indicating abnormal inflammation. Inflammation in the GP group was improved, cartilage structures were relatively intact, and cell morphologies were relatively normal. The levels of IL-1β, IL-4, IL-6,

and IL-17 were statistically analyzed in the plasma samples of each group on day 0 and day 15 of drug administration. On day 0, IL-1β, 1L-4, IL-6 and IL-17 levels were significantly difference (P<0.01) in the model group and GP group compared with the blank group, while there was no significant difference in IL-1β, 1L-4, IL-6 and IL-17 levels in the GP group compared with the model group. On day 15, compared with the blank group, IL-1β, 1L-4, IL-6 and IL-17 levels were significantly difference (P< 0.01) in the model group; there was no significant difference in IL-1β, 1L-4,IL-6 and IL-17 levels in the GP group. Compared with the model group, IL-1β, IL-6 and IL -17 levels were significantly lower (P< 0.01) and 1L-4 levels were significantly higher (P< 0.05) in the GP group.

GP has been found to could restore the the changes in cartilage damage and have a significant impact on the plasma levels of interleukins (IL-1, IL-6, IL-17) and IL-4 caused by KOA in the rabbit model. It has shown to improve the pathological state of model rabbits and enhance their daily physiological metabolism. The plaster effectively reduces the levels of IL-1 and IL-6, along with the pro-inflammatory cytokine IL-17, thereby minimizing their involvement in the development of KOA and slowing down the progression of the disease. Additionally, GP increases the levels of IL-4 and inhibits IL-1 from inducing chondrocytes to synthesize matrix metalloproteinase, which ultimately protects the cartilage.

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CLINICAL OBSERVATION OF SCALP ACUPUNCTURE COMBINED WITH JIAJI POINTS IN THE TREATMENT OF OPTIC NEUROMYELITIS SPECTRUM DISEASE RECOVERY PERIOD

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Abstract. Neuromyelitis optica spectrum disorder (NMOSD) is a kind of autoimmune-mediated central nervous system inflammatory demyelinating disease with optic nerve and spinal cord involvement. The disease has recurrent and high morbidity. The characteristics of most patients with severe visual impairment and physical dysfunction, seriously affecting the quality of life of patients. Occurs in young and middle-aged women [1], involving the optic nerve and the cervical and thoracic spinal cord, and the lesions in the last region of the medulla have characteristic significance. In addition, bilateral cerebral hemispheres, ventricular system, diencephalon, and brainstem are often involved. At present, the best way to maintain treatment for the recovery period of the disease has not been confirmed by definitive clinical trials or treatment guidelines. However, clinically, immunosuppressive therapy, which is widely used in the recovery phase of NMOSD, has obvious side effects and no reasonable and safe treatment has been found. In recent years, the intervention of Chinese medical law has provided new treatment methods and ideas for NMOSD. This study was to observe the clinical efficacy and recurrence of acupuncture in improving the recovery period of NMOSD.

Keywords: optic neuromyelitis lineage disease;acupuncture; immunosuppressant; hormone; clinical efficacy; prognosis; recurrence rate

Objective

To observe the clinical efficacy and recurrence of scalp acupuncture combined with Jiaji points in the recovery of optic neuromyelitis lineage disease.

Materials and methods

Sixteen patients with recovery period of optic neuromyelitis lineage disease who were admitted to the Department of Acupuncture and Moxibustion, the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine, from March 2016 to March 2019, were retrospectively reviewed. In the study, 16 patients were divided into a treatment group and a control group according to the randomized controlled method, including 8 in the treatment group and 8 in the control group.

In the control group, 30 mg of prednisone was given orally immediately after the acute phase, and a combination of azathioprine and 2.5 mg/kg was given. The treatment group was treated with the needle-needle movement area and emotional area on the basis of the same medication in the control group. The sacral area was treated with Jiaji points to observe the clinical efficacy and recurrence of the patients. RESULTS: After treatment, compared with the control group, the treatment group was more effective and the improvement of disability status was significantly better than the control group (P<0.05). The treatment group was significantly less dependent on hormones during the recovery period than the control group. The group recurrence rate was significantly lower than the control group.

Results and discussion

The total effective rate of the treatment group was 62.5%; the total effective rate of the control group was 66.7%. The two groups of data were analyzed by χ2 test, and the difference between the two groups was statistically significant (P<0.05). The number of preoperative treatments in the two groups of patients was analyzed by rank sum test, P>0.05, indicating that the difference was not statistically significant, and the two groups were comparable. The difference between the two groups of NMO patients before and after treatment, the rank difference test, the difference was statistically significant (P<0.05), suggesting that the treatment effect of both groups were significantly improved. There were more cases in the two groups of NMO patients before and after treatment than in the control group. The difference was statistically significant(P<0.05), suggesting that the treatment group was significantly better than the control group. In the treatment group, the dose reduction was significantly greater than that of the control group as the course of treatment increased.

As a result,The treatment of optic neuromyelitis spectrum disease recovery period with scalp acupuncture combined with Jiaji points has significant curative effect on improving neurological status, improving quality of life, reducing hormone dependence, reducing the recurrence rate and disability rate of the disease. It is worthy of clinical application. .

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CONSTRUCTION AND EVALUATION OF CHINESE MEDICINE ACTIVE INGREDIENT NANOPARTICLES BASED ON CONCEPT OF "COMBINATION OF DRUGS AND ADJUVANTS

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Abstract. In this paper, a drug delivery system with anti-tumor activity was constructed using the active components of traditional Chinese medicine. The grafts of bupleurum polysaccharides and astragaloside were synthesized by the hydroxyl condensation method. The nanomicelles drug and excipient were combined to avoid the adverse effects of additional excipients on the drug and the body. The size of the nanomicelles is consistent with enhanced penetration and retention effect and has the potential to passively target tumors. Bupleurum polysaccharide -grafted astragaloside (Bp-g-A) nanomicelles have good stability and slow-release behavior. In addition, nano micelles could significantly inhibit the activity and migration of 4T1 tumor cells.

Keywords: polysaccharide; astragaloside; nanoparticle; adjuvants; antitumor

Bupleurum polysaccharide has antioxidant, anti-inflammatory, anti-tumor and immunomodulatory effects. Astragaloside has significant antitumor activity by inhibiting proliferation and migration. Astragaloside can regulate the eosinophilic and ovalbumin-induced asthma by inhibiting the expression of CC chemokine receptor 3, content of TNF-α, granulocyte macrophage colony stimulating

factor and increasing CD4+ CD25+ Foxp3 Tregs and other cytokines. Therefore, the synergistic effect of bupleurum polysaccharide and astragaloside can maximize the anti-tumor effect.

In general, nano-preparations are composed of excipients and drugs, and the drug is delivered to the target site by virtue of the characteristics of the preparation. However, excipients are often surfactants, which have certain toxicity in the process of transporting drugs. In this study, the drug itself was used as a carrier to avoid the introduction of additional excipients and toxicity.

Objective

In order to prepare nanomicelles with anti-tumor activity and migration ability based on the concept of drug and adjuvant. This nanomicelle avoids the unpredictable effects of inactive excipients and has the ability to be cytotoxic and inhibit cancer cell migration.

Materials and methods

The structure characterization and drug loading determination of Bp-g-A grafts were realized by FITR and 1HMR methods. The size and serum stability of nanomicelles were investigated by dynamic light scattering. The critical micelles concentration was determined by fluorescence spectrophotometer. The slow-release properties of micelles were demonstrated by in vitro release experiments. The cytotoxicity and anti-tumor cells migration ability of micelles were demonstrated by cell experiments.

Results and discussion

The Bp-g-A grafts can efficiently deliver two Chinese medicine active ingredients to the tumor site. The Bp-g-A grafts were successfully synthesized by chemical synthesis. Preliminary studies of its physical and chemical properties indicated that bupleurum polysaccharide was successfully grafted with the astragaloside. When the molar ratio was 1:2 and the degree of substitution was 21.3%, the minimum critical micelle concentration value was 0.0187 mg/mL. This indicated that micelles have good anti-dilution ability. For nanomicelles, the drug loading was 7.1% and drug encapsulation efficiency was 78.1%. The particle size and PDI values were 103nm and 0.02, respectively. The proper size of the particle can give the nano micelle the ability to passively target the tumor and persist.

The size of nanomicelles remained almost unchanged in serum for 48 hours, demonstrating good stability. The in vitro release rate of astragaloside decreased after grafted compared with that without. The decrease with IC50 of nanomicelles was significantly stronger than that of free astragaloside ($p < 0.05$) and blank micelles ($p < 0.01$).

The results of cells scratch test showed that the scratch healing rate of nanomicelles group was dose-dependent and lower than that of the control group ($p < 0.05$). The results of Transwell laboratory experiment showed that the number of 4T1 cells passing through Matrigel matrix gel in nanomicelles group was reduced dose-dependent compared with control group ($p < 0.05$).

Hence, the bupleuron-astragaloside nano micelles can significantly inhibit the activity and migration of 4T1 cells, with a great potential in treating breast cancer.

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EFFECT OF TRADITIONAL CHINESE MEDICINE ON ENDOMETRIAL RECEPTIVITY IN PATIENTS WITH INFERTILITY

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Abstract. Nowadays, infertility patients often use assisted reproductive technology to assist in pregnancy. In vitro fertilization-embryo transfer becomes one of the main clinical means of pregnancy. And there is a significant correlation between endometrial receptivity and embryo implantation rate. Therefore, the changes in endometrial receptivity after taking different traditional Chinese medicine formulas are presented in this paper, exploring whether traditional Chinese medicine can increase the clinical pregnancy rate of IVF-ET in infertility patients by improving endometrial receptivity.

Keywords: Traditional Chinese medicine; Infertility; Endometrial receptivity; Literature research

With the development of society, infertility has become one of the factors affecting the physical and mental health of couples and marital harmony in certain families. Currently, in vitro fertilization-embryo transfer (IVF-ET) is a major treatment for infertility [1], whose clinical pregnancy rate can be as high as 40%-60%. But embryo implantation rate is only 20%-30%, it can be seen that low embryo implantation rate is an important reason for transfer failure in infertility patients, and a large part of the reason for embryo implantation failure is due to low endometrial receptivity [2]. Endometrial receptivity refers to the ability of the mother's endometrium to accept embryos, and only during the implantation window does the endometrium allow embryo implantation [3].

Objective

To explore the effect of traditional Chinese medicine on endometrial receptivity in patients with infertility.

Materials and methods

This article summarizes some existing relevant literature [4-8].

Results and discussion

The relevant literature reveals that traditional Chinese medicine can effectively improve endometrial receptivity and increase clinical pregnancy rate after transplantation, some prescriptions for instance, Bushen Huoxue decoction, Yushen Formula, Bushen Zengmo Decoction, Wenshen Yangxue Prescription and Wen Yang Hua Zhuo Recipe. These formulas mostly focus on tonifying the kidneys and warming yang. Certainly, several single flavored traditional Chinese medicine can also improve endometrial receptivity, such as traditional Chinese medicine of dried human placenta and donkey-hide gelatin, The former has the effects of warming the kidney, tonifying essence, supplementing qi and nourishing blood, the latter has the effects of nourishing blood, stopping bleeding, nourishing yin and moistening dryness, etc. So in traditional Chinese medicine, improving endometrial receptivity mostly starts with the method of tonifying the kidney and nourishing yin.

In summary, traditional Chinese medicine can effectively improve the receptivity of the endometrium, thereby increasing the pregnancy rate.

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TONGSHU GEL PASTE PREPARATION AND PHARMACODYNAMIC STUDY ON TREATING DYSMENORRHEA OF COLD COAGULATION AND BLOOD STASIS TYPE

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Abstract. In this paper, Tongshu prescription, which is commonly used in clinical treatment of dysmenorrhea, was improved into gel paste, and its pharmacodynamics were investigated. We established a rat model of dysmenorrhea with cold coagulation and blood stasis by combining estradiol benzoate with an ice bath and treating it with Tongshu gel paste prepared according to the best prescription. Hemorheometer and enzyme-linked immunosorbent assay (ELISA) were used to investigate the therapeutic effect.According to the investigation, we discovered that Tongshu gel paste may considerably lower the number of writhings, lengthen the latent period of writhings, lower whole blood viscosity, lower plasma viscosity, and lower hematocrit when compared to the model group. In an ELISA study, Tongshu gel paste dramatically increased the level of PGE2 and β-EP, decreased the level of PROG, PGF2α and E2, and had a clear analgesic impact on dysmenorrhea-prone rats.

Keywords: Tongshu prescription; Dysmenorrhea of cold coagulation and blood stasis type; Gel paste; Preparation process; Pharmacodynamic study

Dysmenorrhea is a gynecological condition that occurs during the menstrual cycle. It is classified clinically into two types: primary dysmenorrhea (PD) and secondary dysmenorrhea (SD)[1]. This issue focuses on dysmenorrhea of cold coagulation and blood stasis, and the major goal of clinical treatment is to disperse cold and relieve discomfort, warm meridians, and remove blood stasis. There are studies on moxibustion treatment of PD, which uses acupoints to conduct diathermy and heat transfer to promote blood flow and achieve good therapeutic effect[2]. On the basis of conventional plaster, gel paste, which is a crucial component of the transdermal drug delivery system, combines modern technology and brand-new materials to offer a number of outstanding benefits. These benefits include the ability to prevent drug degradation in the gastrointestinal tract, damage to the gastrointestinal tract from irritant drugs, and the first-pass effect on the liver. Second, the drug level in the blood is constant. Additionally, it has several benefits, including high drug loading, good skin compatibility, minimal irritability, ease of application, no contamination to clothing, and good air permeability, and so on [3].

Objective In order to offer a new option for the clinical treatment of dysmenorrhea of cold coagulation and blood stasis type, this topic intends to transform Tongshu prescription, a clinical empirical formula for the treatment of the condition, into a gel plaster with thermal effect.

Materials and methods

The matrix formula of gel paste was optimized using the single factor test and central composite design-response surface approach, with initial adhesion, adhesion, and complete sensory score as evaluation indices. In this work, estradiol benzoate was paired with an ice-water bath to create a rat model of dysmenorrhea caused by blood stasis, and the writhing reflex was detected after oxytocin injection. The LBY-N7500B automatic blood rheometer, Snergy-H1 full-function enzyme-labeled equipment, and ELISA detection kit were used to assess changes in hemorheology and inflammatory markers in female SD rats.

Results and discussion

Tongshu gel paste matrix's optimal composition is sodium polyacrylate 0.50 g, aluminum glycinate 0.1 g, humectant 8.00 g (glycerol:propylene glycol = 8:2), tartaric acid 0.1 g, 10% far-infrared ceramic powder, sodium carboxymethyl cellulose (CMC-Na), and gelatin 1.75 g (CMC-Na:gelatin = 1:3). In this experiment, rats in the model group felt listless and afraid of cold and warmth; their hair stood up and twisted; and their blood plasma viscosity, whole blood viscosity, and hematocrit increased significantly, indicating that the pathological model

of dysmenorrhea with cold coagulation and blood stasis was successful. Tongshu gel paste can considerably lower the quantity of writhing and lengthen the latent time of writhing in dysmenorrhea rats when compared to the model group (P<0.05, P<0.01). Tongshu gel paste can significantly reduce the whole blood viscosity at different shear rates, and Tongshu gel paste can significantly reduce the plasma viscosity (P<0.05), and Tongshu gel paste can significantly reduce the hematocrit (P<0.05), indicating that Tongshu gel paste has a good effect on improving the abnormal hemorheology caused by cold coagulation.PGF2 levels in the model group were considerably higher than in the control group (P0.01), but PGE2 levels were significantly lower (P<0.01). Tongshu gel paste might considerably reduce PGF2 levels while increasing PGE2 levels after treatment. Furthermore, it greatly decreased the concentrations of PROG and E2 (P<0.05, P<0.01) while significantly increasing the contents of β-EP (P<0.05).

As a result, Tongshu gel paste successfully addresses the difficulties of awkward usage and carrying, easy moisture absorption, and volatile oil components in the original powder application. Pharmacodynamic tests suggest that Tongshu gel paste is effective in treating dysmenorrhea caused by cold coagulation and blood stasis.

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STUDY ON THE EFFECT OF WASHING TIMES OF EVODIA RUTAECARPA DECOCTION ON BIOLOGICAL TISSUE TOXICITY

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Abstract. Evodia rutaecarpa[1] has been recorded to exhibit "small toxicity" in ancient Chinese herbal medicine books, which have also documented the method of "soup washing to remove toxicity." However, the organs that E. rutaecarpa may damage and the specific conditions for soup washing to remove toxicity have not been clearly indicated. In this study, SOD, MDA, GSH-PX, NO, NOS, ALT, AST, CK-MB, CK, BUN, and CRE, which play a very important role in various tissues, are taken as indicators to investigate the serum toxicity and various organ toxicity (liver, heart, spleen, lung, kidney, and brain) of E. rutaecarpa in rats. This study found that E. rutaecarpa could increase liver and kidney indexes, and this effect decreased with the increase in boiling times. E. rutaecarpa exhibited systemic toxicity as well as toxicity toward the liver, spleen, lung, kidney, and brain.

Keywords: Evodia rutaecarpa, Toxicity, Biological tissue.

Ancient Chinese medicine discovered very early that E. rutaecarpa has "small poison", and Tao Hongjing in the Wei and Jin Dynasties first used the words "big fever, small poison" in the Medical directory. Sun Simiao (541AD) in the Tang Dynasty first described the specific manifestation of the toxicity caused by E. rutaecarpa: "E. rutaecarpa is good if it is aged for a long time. The unbroken E. rutaecarpa is poisonous. Eating too much can hurt the spirit, make people suffocate, and they can't breathe freely." Zhu Zuo (1266 AD) of the Song Dynasty mentioned the following in the Analogy of Zhu's Collection of Medical Prescriptions: "It is easy to make people feel the fire poison, to make your eyes faint, causing sores, etc."Therefore, it is often used to treat dizziness, headache, costalgia, vomiting, diarrhea, etc.[2-3] These records not only tell us that E. rutaecarpa exhibits "small toxicity" but also suggest that its toxicity may be more extensive.

Objective

This study aimed to comprehensively investigate the toxicity of E. rutaecarpa to the serum toxicity and various organs (liver, heart, spleen, lung, kidney, and brain).

Materials and methods

E. rutaecarpa was purchased from Harbin Baofeng Medicine. All kits are from Nanjing Jiancheng College of Biological Engineering. Blood was collected from the abdominal aorta 1 h after the last administration and centrifuged at 4000 rpm/min for 10 min to obtain the serum. The preparation method for the supernatant of each tissue was as follows: An appropriate amount of the tissue was

taken and weighed. Nine times normal saline homogenate was added, and after adding the homogenate to the tube, 10% homogenate was centrifuged at 3000 rpm/min for 10 min to obtain the supernatant for use.

Results and discussion

E. rutaecarpa exhibited systemic toxicity as well as toxicity toward the liver, spleen, lung, kidney, and brain. Significant changes were observed in the measurement of SOD, MDA, GSH-PX, NO, NOS, ALT, AST, CK-MB, CK, BUN, and CRE. However, the toxicity of the water decoction decreased with the increase in washing times, and the toxicities of most water decoctions were no longer significant after washing three or more times. The hepatotoxicity of E. rutaecarpa and its components has been extensively researched[4-6], but a more comprehensive study has not been conducted. Traditional Chinese medicine is a system involving complex components, which should be explored and studied more comprehensively in terms of their clinical toxicity to the best possible extent.

In this study, the effect of E. rutaecarpa decoction washing times on the toxicity of E. rutaecarpa decoction was studied. After 7 days of continuous administration, the rats were tested for toxicity indicators in their serum and various tissues. The results showed that E. rutaecarpa would increase the liver index and kidney index, and the effect decreased with the increase in washing times. E. rutaecarpa has systemic toxicity and is toxic to the liver, spleen, lung, kidney, and brain. With the increase in washing times, the toxicity decreases.

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TREAT DISEASES BASED ON THE THEORY THAT ALL DISEASES ARE BORN OF QI

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Abstract. The theory that «all diseases are caused by Qi» originated from Suwen Jutong Lun. Qi is a very small substance with strong vitality and endless movement in the human body, and it is also the basic substance that constitutes and maintains the life activities of the human body. Doctors in the past Dynasties have different opinions on the specific reference of «Qi» in «all diseases are caused by Qi», and most of them think that «Qi» here refers to the disorder of Qi. The author tries to discuss the theory of «all diseases are caused by qi» from the perspective of qi of the viscera.and guide clinical treatment.

Keywords: qi, the qi of the viscera

The theory that «all diseases are caused by qi» originated from Huangdi Neijing 1, and «qi» originally refers to nine qi as diseases. Many physicians in the past Dynasties believed that «qi» in «all diseases originate from qi» refers to the disorder of qi activity. Doctors of the past Dynasties have different opinions on what causes the disorder of Qi movement and makes the human body suffer from diseases. However, the classification of qi in traditional Chinese medicine varies from one physician to another. The author tries to discuss the theory of «all diseases are caused by qi» from the perspective of qi of the viscera, and lists the stomach as one of the viscera.How does the qi of the viscera cause the disease.

Qi is a very tiny substance with strong vitality and endless movement in the human body, and it is also the basic substance that constitutes and maintains the life activities of the human body. The life process of the human body is maintained by

the endless and unprovoked movement of Qi. The Qi of the whole body is nourished by the innate Qi and the acquired Qi. The innate Qi is the root of the Qi of the whole body and the life of the human body. The Qi of the whole body is nourished by the innate Qi and the acquired Qi. The innate Qi is the root of the Qi of the whole body and the motive force of the life activities of the human body. It is generated by the innate essence stored in the kidney. Correspondingly, the acquired Qi is composed of the pure Qi inhaled by the human body from nature and the grain essence absorbed through diet. The clear qi of nature can only be absorbed into the human body by the combined action of the respiratory function of the lung and the function of the kidney to receive qi, and the essence of water and grain is derived from the acquired essenceGenerated by the spleen and stomach, the spleen transports and transforms water and food. Nable that vital essence to be generated, and the stomach is in charge of receive the decomposed water and grain, and transferring and distribute the initially digested food and drink downwards. In the terminology of traditional Chinese medicine, Qi can express different meanings in different contexts. 2.

Objective

The theory of «all diseases born in Qi» is discussed from the Angle of Qi of zang-fu organs.

Materials and methods

Review relevant literature and analyze TCM knowledge.From a philosophical point of view, Neijing expounds that the basic movement form of anything can not be separated from the category of ascending, descending, entering and exiting, which is also applicable to the movement form of Qi. Ascending, descending, entering and exiting summarize the movement direction and form of qi. Ascending and descending means that the movement form of qi is from top to bottom or from bottom to top, which is a longitudinal movement. Entering and exiting means that the movement form of qi is from inside to outside or from outside to inside. Qi inside to the internal organs, outside to the muscles, bones, skin, and fur, the rise and fall of qi in and out of abnormalities, will inevitably lead to imbalance of the body.

Results and discussion

The qi of the whole body is distributed in the heart, which governs the blood vessels and stores the spirit. If the heart qi is lax and weak, palpitation, insomnia and dreaminess will occur. In serious cases, the heart qi and heart Yang are deficient, and the heart can not control the blood vessels for a long time, heart failure and bleeding will occur. If the mind is disturbed by excessive joy or sadness, the spirit will lose its control and become insane. The qi of the whole body is distributed in the lung, which is lung qi. However, the lung is in charge of qi and respiration. The deficiency of lung qi leads to the failure of the function of dispersing and descending. The adverse flow of qi leads to cough and asthma. The deficiency of lung qi and the lack of body fluid are gathered.Clear and thin expectoration due to turbid phlegm, deficiency of lung qi, inability to disperse defensive qi, spontaneous perspiration due to failure of qi to absorb body fluid, lung deficiency due to prolonged illness, delayed healing, resulting in fullness of lung qi and inability to converge and descend, and lung distension due to abnormal discharge of lung qi. The qi of the whole body is distributed in the spleen, which is the spleen-qi. The spleen governs transportation and transformation and ascends the clear. Deficiency of the spleen-qi is easy to cause dampness and turbidity. Deficiency of the spleen causes excessive dampness, resulting in spleen failure.

Thus, Qi is essential for the human body. Diseases can be treated through exercises that regulate qi.Conditioning Qi will certainly provide diagnostic ideas for clinical practice.

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ACUPUNCTURE TREATMENT OF AFFECTIVE CROSS-RUBBING OF LEGS: A CASE REPORT

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Abstract. Emotional cross-rubbing of legs, also known as leg clamping syndrome, refers to a habitual action in which children are excited by rubbing their legs against the perineum. Modern medicine is often treated with oral vitamins, reducing local stimulation combined with psychological counseling, and the curative effect is limited. It is reported that Professor Sun Yuanzheng used «mind-regulating method» to treat a case of affective cross-rubbing of legs, and introduced its treatment method and principle. During the treatment, the mind-regulating method paid attention to the regulation of patients' emotional and mental activities, combined with dialectical selection of meridians to treat emotional cross-rubbing of legs, and achieved good clinical results.

Keywords: emotional cross-rubbing of legs,acupuncture

Emotional cross leg rubbing syndrome[1], also known as leg clamping syndrome, refers to a psychological and behavioral phenomenon of leg clamping as the main manifestation and constantly rubbing the vulva at the same time. Most of them occur at the age of 1 to 3 years old, and girls are more common than boys. During the attack, the patient has two legs crossed and adducted, or two legs straight, rubbing hard up and down, accompanied by sweating and blushing, which can occur for several minutes or more each time, once a few days, or several times a day, mostly before falling asleep or after waking up.

During the attack, the mind is clear, and the response to the surrounding environment is normal, which is different from the seizure. At present, the etiology of western medicine is not clear, which may be related to local stimulation or psychological factors. Oral vitamin B1 is often used. Most parents are advised to reduce local stimulation factors and divert children's attention, but the effect is not satisfactory.

Objective

To observe the clinical effect of «mind-regulating method» in the treatment of affective cross-rubbing of legs, and explore its principle.

Materials and methods

According to the symptoms of children, TCM syndrome differentiation is emotional cross-rubbing of legs (kidney deficiency and liver depression, disturbing the mind and mind); treatment principles: tonifying the kidney and soothing the liver, calming the mind. Acupuncture points: Shenting, Benshen (bilateral), Sishen Cong, Shenmen, Neiguan, Hegu, Taichong, Zusanli, Shenshu, Ligou, Sanyinjiao. Operation method: take lateral recumbent position, local acupoint skin routine disinfection, use 0.30mm × 25mm disposable acupuncture needle, Sishen Congping acupuncture 10-20 mm; Shenting and Benshen (both sides) flat acupuncture along meridian direction, then 10~20mm backward and downward, and give high frequency and small repetition (above 200r/min), twirling about 1min at each acupoint, and needling once after and before needling. He Gu and Taichong needled 15~20mm directly, and the method of lifting and purging was performed after getting qi; the method of twirling and tonifying was used after directly needling 10~15mm at Shenshu, and the rest of the acupoints were treated with routine acupuncture for tonifying and relieving diarrhea, so that the acupoints of children had a feeling of sore distension. The patients were treated once a day, 30 minutes for 6 days as a course of treatment, and one day off after each course of treatment.

Results and discussion

Affective cross-rubbing of legs generally occurs in preschool children, when children's kidney essence and kidney qi is not filled, congenital deficiency, acquired loss of support, affected by mental and other external factors are easy to occur. In this case, the child has a thin body, frequent cross-rubbing of legs, and attacks are often accompanied by blushing, irritability, red tongue, yellow fur, and pulse strings, which are dialectically characterized by kidney deficiency, liver depression and disturbance of the mind. The disease is located in the kidney and is closely related to the liver, heart, brain and other viscera. Professor Sun Yuanzheng takes the pathogenesis of this disease as the basis, treats it from the kidney, takes tonifying the kidney and soothing the liver, calming the mind as the treatment principle, treats the disease.

Professor Sun Yuanzheng made good use of the method of regulating mind, and often selected acupoints such as Shenting, Benshen (both sides) and Sishencong to treat emotional-related diseases, and achieved good results in clinic. Shenting, which has the function of latent yang to calm the mind and awaken the brain to extinguish the wind, has the effect of dispelling wind and calming, clearing heat and relieving pain; Shenting and Benshen (both sides), which locate the frontal pole of the brain according to the projection area of the cerebral

cortex, is the center of the mental activity of the human body and is closely related to the regulation and control of emotion and learning activities.

The brain is the sea of marrow, and Si Shencong is the strange acupoint outside the meridian, which has the ability to calm the mind, invigorate the brain and promote wisdom. Shenmen is the original acupoint of the hand Shaoyin Heart Meridian, which has the function of calming the mind and relieving palpitations. Neiguan is the collateral point of the hand Jueyin pericardial meridian, which has the effect of wide chest regulating qi and calming. The combination of the two acupoints can calm the mind and calm the heart. All the acupoints play the effect of tonifying the kidney and soothing the liver and calming the mind.

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PROGRESS IN THE REGULATION OF WNT/β-CATENIN SIGNALING PATHWAY BY TRADITIONAL CHINESE MEDICINE IN THE TREATMENT OF DIABETIC NEPHROPATHY

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Abstract. Diabetic nephropathy (DN) is one of the most common microvascular complications of diabetes and the main cause of end-stage renal disease. Wnt/β-catenin signaling pathway plays a role in cell signal transduction in DN. Traditional Chinese medicine has shown great advantages in the treatment of DN. This article aims to explore the molecular mechanism of Wnt/β-catenin signaling pathway in the occurrence and development of DN, potential therapeutic targets and research achievements of traditional Chinese medicine on the treatment of DN based on Wnt/β-catenin signaling pathway, in order to provide references for the treatment of DN.

Keywords: traditional Chinese medicine, wnt/β-catenin, signaling pathway, diabetic nephropathy, research progress

Diabetic nephropathy (DN) is a chronic microvascular complication of diabetes with great harm. In recent years, it has been found that Wnt/β-catenin signaling pathway is generally activated in DN. As an indispensable treatment method for DN, traditional Chinese medicine has received extensive attention.

1. Overview of Wnt/β-catenin signaling pathway

Under normal conditions, Adenomatous polyposis col protein(APC) and Axin form what is known as the Glycogen synthase kins-3β (GSK-3β) «destruction complex» with casein kinase 1α(CK1α) together phosphorylates β-catenin[1]. When the Wnt protein acts as a ligand and binds to Frizzled (Fzd) and LRP 5/6 co-receptors, signal transduction is triggered[2], Disheveled (DVL) is activated, resulting in the deactivation of GSK-3β, beta-catenin cannot be phosphorylated and accumulates into the nucleus in the cytoplasm, thereby inducing the expression of target genes.

2. The role of Wnt/β-catenin signaling pathway in DN

Mesangial cells (MCs) play an important role in maintaining the structural integrity and functional stability of the glomerulus. We found that by promoting the activation of Wnt/β-catenin signaling pathway in MCs, apoptosis of MCs cells was inhibited under the condition of high glucose. Curcumin reverses high-sugar induced ECM accumulation by upregulating Wnt5a gene expression in MCs[3]. Podiocytes are an important part of maintaining the structure and function of the glomerular filtration barrier. It was found that β-catenin expression was elevated in the high-sugar induced podocyte apoptosis model, and the use of pathway inhibitors significantly inhibited podocyte apoptosis[4].

3. Intervention of Wnt/β-catenin signaling pathway to treat DN

Klotho can bind to a variety of WNTS, block WNT-triggered β-catenin activation and nuclear translocation, reduce matrix formation, and improve renal fibrosis[5]. Sfrps and Fzd receptors competitively bind to Wnt, inhibiting the Wnt signaling pathway[6]. Hypermethylation of the Wif-1 promoter leads to downregulation of Wif-1 expression, which in turn activates the Wnt signaling pathway[7].

4. Traditional Chinese medicine treats DN based on Wnt/β-catenin signaling pathway

After R treatment with DN rats, the contents of Wnt1 and p-β-catenin were down-regulated,

the expression of Nephrin was increased, and the kidney injury of DN mice was improved[8]. Tripterygium wilfordii significantly reduced fibrosis and kidney injury by reducing the expression levels of Wnt1 and β-catenin[9].

5. Summary and outlook

In summary, Wnt/β-catenin signaling pathway affects DN process by participating in DN mesangial cell apoptosis, ECM formation and podocyte dysfunction. Key targets such as Klotho, Sfrp1, and Wif-1 can regulate abnormal activation of Wnt/β-catenin signaling pathway. Chinese medicine plays a protective role in kidney by regulating Wnt/β-catenin signaling pathway.

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RESEARCH PROGRESS OF ASTRAGALUS MEMBRANACEUS ON DIABETES AND ITS COMPLICATIONS

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Abstract. Astragalus membranaceus, as a classic medicinal material in the tonic, has been the focus of clinical application since ancient times. Its medicinal parts are the roots of the leguminous plant Astragalus mongholicus or Astragalus membranaceus, and the main effective groups are astragalus polysaccharide, total flavonoids of astragalus membranaceus and astragaloside IV. Modern studies show that Astragalus membranaceus has many pharmacological effects such as protecting cardiovascular system, regulating immunity, regulating blood sugar, anti-tumor, anti-oxidative stress and improving metabolism. At present, Astragalus membranaceus and its active components are widely used in the treatment of cardiovascular diseases, cognitive diseases, diabetes and its complications, autoimmune diseases and other diseases, especially for the regulation of blood glucose and diabetes complications have obvious clinical efficacy. In recent years, the intervention mechanism of Astragalus membranaceus and its active components on diabetes and its complications has been continuously explored. This paper refers to recent literatures at home and abroad and analyzes them, mainly through the improvement of insulin resistance, protection of blood vessels, improvement of inflammation, improvement of oxidative stress, and lowering of blood sugar, so as to further explore the role of Astragalus and its effective components in the intervention of diabetes mellitus and its complications.

Keywords: astragalus membranaceus, extractive, diabetes, diabetic complication, mechanism of action, research progress

Diabetes mellitus (DM) is a disease characterized by significantly higher blood sugar than normal. Its pathogenesis is complex and usually induced by a variety of factors, which seriously affects the quality of life of patients. The blood sugar of diabetic patients cannot be controlled in the normal range for a long time, and a series of complications will be caused with the

increase of the disease time, such as vascular disease, diabetic nephropathy, fundus disease, neuropathy, diabetic foot, etc. Complications are the main reason that diabetes threatens the life of patients. At present, the main treatment methods for diabetes are subcutaneous insulin injection and oral hypoglycemic drugs, which have significant effect on blood sugar control. However, a mild and effective method is still needed as an auxiliary treatment for complications. Traditional Chinese medicine is a field that needs to be developed urgently because of its multi-target treatment direction and low risk characteristics.In recent years, Astragalus has been the focus of research in the direction of diabetes and its complications. Elucidates how Astragalus improves diabetes and its complications through what ingredients to provide a better reference for clinical drug use.

Astragalus polysaccharide can regulate partial insulin signal transduction in insulin-resistant skeletal muscle, and restore elevated insulin-induced phosphorylation of PKB-Ser473 and GLUT4 in skeletal muscle to normal[1].Astragalus extract can act on inflammatory factors in various ways. Astragalus polysaccharide can significantly reverse chronic, systemic and mild inflammation induced by high-fat diet in mice, decrease the pro-inflammatory cytokines TNF-a, IL-6, IL-1β and LEPTIN, and increase the serum adiponectin[2].In STZ-induced diabetic mice, Astragalus polysaccharide increased the level of SOD2 protein and enzyme activity, inhibited ROS formation and oxidative damage of cardiac stem cells and progenitor cells (CSPCs), increased the abundance of CSPCs and reduced the apoptosis of CSPCs[3].In vitro experiments, astragaloside inhibited high-sugar-induced podocyte apoptosis and increased the expression of high-sugar-inhibited Klotho, which could significantly reduce the production of intracellular ROS and mitochondrial superoxide induced by high sugar, and weaken the oxidative stress and apoptosis induced by high sugar[4]. Astragaloside can increase the activity of total SOD, MnSOD, CAT and GSH-PX in retinal capillaries (RCECs) of rats under high glucose condition, and has a protective effect on the oxidative damage of RCECs in rats[5].

Astragalus is a traditional medicinal material for invigorating qi, and it is praised as «the most important medicine for invigorating qi» in the book «Seeking Truth in Materia Medica». In recent years, the intervention effect of Astragalus extract on diabetes and its complications has been widely studied, which has opened up a new idea for clinical drug guidance. However, the current reports on Astragalus extract are mainly reflected in animal experiments, and there is a lack of relevant clinical observation. The multi-pathway and multi-target characteristics of traditional Chinese medicine also suggest that we need to further explore its different mechanisms of action, and long-term extensive research is needed to better guide the clinical use of Astragalus.

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RESEARCH PROGRESS ON THE MECHANISM OF JIAOTAI PILL IN IMPROVING TYPE 2 DIABETES MEIILTUS

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Abstract. The number of patients with diabetes increases year by year. It not only poses a serious threat to human health, but also brings a heavy economic burden to society and families. Medications for the treatment of diabetes, such as oral hypoglycemic agents and insulin, can partially alleviate the problems of insulin secretion deficiency and insulin resistance, but have significant adverse reactions. Traditional Chinese medicine (TCM) has a long history of treating diabetes and its complications and wide application prospect. Among them, Jiaotai Pill for the treatment of type 2 diabetes (T2DM) has attracted more and more attention. This paper reviews the research progress of Jiaotai Pill in the treatment of T2DM.

Keywords: Jiaotai Pill,type 2 diabetes mechanism

Jiaotai Pill has been clinically used for the treatment of diabetes and complications due to its simple formula and good efficacy. In addition to its applications in the treatment of depression, diabetes, and insomnia, Jiaotai Pill has also been used to improve menopausal syndrome, skin diseases, recurrent oral ulcer, and non-alcoholic fatty liver [1].

Mechanism of Jiaotai Pill in Reducing Blood Glucose

Jiaotai Pill has the effect of significantly improving the glucolipid metabolism of T2DM and is widely used in clinical for the treatment of T2DM and its complications, including insomnia, cognitive dysfunction, hyperlipidemia, and retinopathy.

Jiaotai Pill protects B cell function and promotes insulin secretion Chen et al. [2] studied the treatment of T2DM rats with modified Jiaotai Pill (including Rhizoma Coptidis, Cortex Cinnamomi, Radix Astragali, Herba Gynostemmatis, Radix Puerariae, Folium Mori, and Rhizoma Sparganii), and they found that modified Jiaotai Pill could improve insulin resistance and protect the function of islet B cells, which might be related to the increase in the expression of pancreatic and duodenal homeobox factor -1(PDX-1) and insulin. Other studies found that berberine and Rhizoma Coptidis extracts had protective effects on Rin-5F cells, and berberine and Rhizoma Coptidis extracts were able to improve glucose-stimulated insulin secretion, cell cycle, lipotoxic islet cell proliferation, and protein expression of poly (ADP-ribose) transferase (PARP-1) in Rin-5F cells, indicating that the mechanism might be related to the improvement of islet B cell proliferation and protein expression of PARP-1 [3]. Some researchers believe that the protection of islet B cells by berberine may be related to the activation of AMP-dependent protein kinase (AMPK) [4].

Jiaotai Pill improving insulin resistance Jiaotai Pill Found to Improve Insulin Resistance. Huang et al. [5] studied the mechanism of Jiaotai Pill in treating sleep-deprived rats and found that Jiaotai Pill could improve insulin resistance of sleep-deprived rats, which might be related to the regulation of biological clock proteins. Berberine, one of the main active components of Jiaotai Pill in lowering blood sugar, can also improve insulin resistance. XU [6] found that berberine inhibited STZ-induced gluconeogenesis in skeletal and adipose tissues of diabetic rats through the liver kinase B1(LKB1)- phosphorylated CREB transcription co-activation factor (AMPK-TORC2) signaling pathway. In summary, the anti-insulin resistance mechanism of berberine is mainly related to its anti-inflammation and regulation of sugar metabolism-related pathways.

Jiaotai Pill regulating lipid metabolism Jiaotai Pill has obvious lipid-lowering effect. Huang et al. [7] found that Jiaotai Pill could inhibit lipid deposition in the liver of patients with T2DM.

Anti-inflammatory Effect of Jiaotai Pill Su et al. [8] studied the effects of long-term partial sleep deprivation on glucose metabolism and intestinal epithelial barrier function in obese resistance rats, and explored the mechanism of Jiaotai Pill in improving systemic inflammation and glucose metabolism disorder in insomnia rats. ELISA was used to detect the levels of serum insulin and inflammatory mediators interleukin -1β(IL-1β), interleukin -6(IL-6) and TNF-α in rats, PCR was used to detect the mRNA levels of IL-1β, IL-6 and TNF-α in local intestinal tract, and Western Blotting was used to detect the expression of relevant signaling pathway proteins. The results showed that sleep deprivation could activate the intestinal Toll-like receptor 4(TLR4)/NF-κB signaling pathway, increase the expression levels of intestinal IL-6 and TNF-α, and increase the levels of IL-6 and TNF-α in blood circulation. Jiaotai Pill could improve the peripheral inflammation of glucose and insulin resistance in rats with partial sleep deprivation.

Jiaotai Pill has a clear effect on the treatment of diabetes, its mechanisms mainly include the protection of islet B cells, promoting insulin secretion, improving insulin resistance, anti-inflammation

and lipid regulation. The molecular mechanism of hypoglycemic needs further investigation. Jiaotai Pill can also prevent and treat diabetic complications. Therefore, Jiaotai Pill has a broad prospect in the treatment of diabetes, and it is worthy of further clinical application.

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MECHANISM INVESTIGATION OF THE THERAPEUTIC EFFECT OF PAEONIAE RADIX RUBRA ON ENDOMETRIOSIS BASED ON NETWORK PHARMACOLOGY

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Abstract. Endometriosis is a chronic gynecological disorder characterized by the presence of endometrial-like tissue outside the uterine cavity. paeoniae radix rubra (Chishao), a traditional Chinese herbal medicine, has been widely used for the treatment of endometriosis with promising clinical outcomes. In this study, we aimed to elucidate the underlying mechanism of paeoniae radix rubra in alleviating endometriosis using a network pharmacology approach.

Keywords: paeoniae radix rubra, endometriosis, network pharmacology, mechanism investigation

Endometriosis is a common gynecological disorder characterized by the presence of endometrial-like tissue outside the uterine cavity, leading to chronic pelvic pain and infertility in affected women. Paeoniae radix rubra, a traditional Chinese herbal medicine, has a long history of clinical use in the treatment of endometriosis. However, the underlying molecular mechanism of its therapeutic effect remains largely unexplored. In recent years, network pharmacology has emerged as a powerful approach to elucidate the multifaceted interactions between drugs and biological systems. In this study, we aim to utilize a network pharmacology strategy to systematically investigate the potential bioactive components and their target genes of paeoniae radix rubra in the context of endometriosis.

Objective

A network pharmacology approach was applied to screen the main active ingredients of Paeoniae radix rubra. To predict the targets of the active ingredients for the treatment of endometriosis. To investigate the mechanism of the «active ingredient-target-pathway» effect model of Paeoniae radix rubra in the treatment of endometriosis.

Materials and methods

Firstly, the chemical constituents of Paeoniae radix rubra were searched through the database of chemical constituents of traditional Chinese medicine, and those that simultaneously met the criteria of Oral Bioavailability (OB) ≥ 30% and Drug-likeness (DL) ≥ 0.18 as the effective active ingredients. Subsequently, the Targets information

software was utilized to screen the action targets of each active ingredient. The target genes related to endometriosis were collected by utilizing GeneCards database, and the target genes for the treatment of endometriosis by the active ingredients of paeoniae radix rubra were obtained by using the Venn diagram tool. Next, Cytoscape software was used to construct the active ingredient-target network diagram of paeoniae radix rubra and the relationship between target proteins was analyzed by STRING software. Furthermore, the gene ontology (GO) bioanalytical functions of target gene enrichment were analyzed by Gneontology database, and the signaling pathways of target gene enrichment were analyzed by KEGG database.

Results and discussion

A total of 7 active components of Paeoniae radix rubra were screened in this study, which were ellagic acid, paeoniflorin, baicalein, Stigmasterol, beta-sitosterol, (+)-catechin, and (2R,3R)-4-methoxyl-distylin. There are 42 targets associated with the active ingredient for the treatment of endometriosis, namely ESR1, PGR, VEGFA, IL6, GSTM1, TP53, PTGS2, MMP2, CXCL8, TNF, MMP9, PLAU, BCL2, AHR, AR, GSTP1, HIF1A, AKT1, BAX, CDKN1A, RELA, MPO, FOS, IGF2, CCNB1, JUN, CAT, OPRM1, CASP9, NFKBIA, SLC6A4, NOS2, NCOA1, PRKCB, PON1, HAS2, PTGS1, CASP8, MAP2, CYCS, NCOA2, and RXRA. It was found that paeoniae radix rubra may play a therapeutic role by regulating biological processes such as apoptotic process, response to estradiol, response to xenobiotics stimulation, inflammatory response, response to luteinizing hormone, ovarian follicle development, and response to oxidative stress; as well as KEGG pathways such as IL-17 signaling pathway, estrogen signaling pathway, endocrine resistance, TNF signaling pathway Toll-like receptor signaling pathway, HIF-1 signaling pathway, p53 signaling pathway, sphingomyelin signaling pathway, PI3K-Akt signaling pathway, MAPK signaling pathway, and others.

This study preliminarily verified the main targets and related pathways of paeoniae radix rubra in the treatment of endometriosis from the perspective of network pharmacology, laying the foundation for the next experimental study and clinical application.

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RESEARCH PROGRESS OF CURCUMIN AND ITS ANALOGUES IN PREVENTION AND TREATMENT OF DIABETIC NEPHROPATHY

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Abstract. The pathogenesis of diabetic nephropathy is very complex, and the effect of prevention and treatment methods is very limited at the present stage. Curcumin has antioxidant, anti-inflammatory, anticancer, neuroprotective effects, and other effects, which is of great significance in the prevention and treatment of diabetic nephropathy.This article from the improvement of oxidative stress, inhibition of inflammation, anti-fibrosis, anti-apoptosis four aspects to discuss.

Keywords: curcumin, analogue, diabetic nephropathy

Curcumin is an effective ingredient extracted from the dried rhizome of turmeric. Curcumin has antioxidant, anti-inflammatory, anti-cancer and neuroprotective effects[1]. Modern pharmacological studies have shown that curcumin and its analogues can prevent and treat DN by improving oxidative stress, inhibiting inflammatory response, anti-fibrosis, anti-apoptosis and so on. This article reviews the therapeutic effects of curcumin and its analogues in these aspects.

Improve oxidative stress

Curcumin treatment can significantly reduce ROS production, decrease malondialdehyde (MDA) level, and increase glutathione peroxidase (GPX) and superoxide dismutase (SOD) content in rats. Curcumin reduces oxidative stress by reducing ROS, increasing GSH levels to activate the Nrf2 pathway, and inhibiting NADPH oxidase and PKC-β, thereby preventing kidney injury in rats[2][3].

Inhibit inflammation

Curcumin can inhibit the phosphorylation of p38MAPK signaling pathway, inhibit the activation of NLRP3 inflammatome, and target Traf6 to inhibit the expression of NF-κB mediated proinflammatory factor mRNA. Curcumin analogitics can inhibit the expression of TNF-α, Cox-2, NF-κB p65 in the

cerebral cortex of diabetic rats. Increase the level of IκBα and inhibit the activation of NF-κB to inhibit DN progression[4].

Antifibrosis

Curcumin alleviates renal fibrosis by inhibiting TGF-β/Smads signaling pathway, TGF-β/Akt/mTOR signaling pathway, TLR4/NF-KILb and PI3K/AKT, and inhibiting TGF-β1-activated kinase 1(TAK1), p38MAPK and JNK pathways[5][6].

Antiapoptosis

Curcumin can down-regulate the expression of caspase-3 and Bax protein, enhance the expression of Bcl-2 protein, regulate Beclin1/UVRAG/Bcl2, inhibit JNK and Notch2/hes1, and inhibit aerobic glycolysis through miR-489/LDHA pathway to reduce glucose fluctuations and reduce cell apoptosis rate. Improve kidney function injury[7].

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RESEARCH PROGRESS OF FREE FATTY ACID METABOLISM AND ITS ROLE IN EARLY DIAGNOSIS OF TYPE 2 DIABETES MELLITUS

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Abstract. Free fatty acids (FFAS) have relatively strong tissue and cell toxicity, which can lead to a series of consequences such as the disturbance of cell growth cycle regulation, the change of cell transport mechanism, and the inhibition of glucose oxidation and transport, and further cause cell structure damage such as cell membrane, mitochondria, endoplasmic reticulum, and then cause insulin resistance and the gradual apoptosis of islet cells. At the same time, the level of free fatty acids is closely related to the degree of insulin resistance in T2DM patients. In this paper, the change process of free fatty acids in T2DM was preliminarily described, and the metabolism of free fatty acids and its related research on the early diagnosis of T2DM were further discussed.

Keywords: free fatty acids,type 2 diabetes,early diagnosis

The development process of T2DM is mainly characterized by increased insulin secretion to compensate for the transient instability of insulin resistance, gradual decrease of islet B cell population and rapid rise of blood glucose, and then it turns into overt diabetes. This is usually accompanied by an increase in lipid levels, and an increase in FFAS in the blood leads to an increase in triglycerides and VLDL particles, which further leads to an increase in LDL and a decrease in HDL. Therefore, this review summarizes the correlation between T2DM and FFAS, as well as the changes in metabolites, and provides new ideas and directions for the prevention and treatment of metabolic diseases such as T2DM.

1. Differences in free fatty acids in patients with type 2 diabetes

Studies have shown that the total plasma FFAS in T2DM patients tends to increase, which

is closely related to impaired insulin secretion, impaired insulin sensitivity and glucose intolerance, especially saturated free FFAS such as palmitic acid and stearic acid[1]. The level of LA in T2DM patients was higher than that in control group. Results from patients with impaired fasting blood glucose showed that two long chain n-6 FFAS such as adrenal acid [C22:4n-6] and ARA were elevated in their bodies, Short and medium chain FFAs such as pelargonic acid [C9:0], heptanoic acid [C7:0], and MUFA 5-dodecenoic acid [C12:1n-7] were reduced in these patients.

Menni C et al. [2] used non-targeted metabolomics methods that appeared before and after hyperglycemia in 2,204 women,115 subjects with T2DM, 192 individuals with impaired fasting glucose, and 1,897 control subjects. Results showed that the longest chain lipids epinephrine [22:4n-6] and arachidonic acid [20:4n-6] were elevated in patients with impaired fasting glucose compared to control subjects. For control subjects, T2DM patients had fewer shorter chains of lipids 5-dodecenoic acid [12:1n-7], heptanoic acid [7:0] and polymalonic acid [9:0].

2. Type 2 diabetes mellitus with coronary heart disease

FFAs are derived from adipose tissue and are the main source of myocardium through the lipid interpretation of triglycerides and phospholipids. High oxidation rate of free fatty acids in diabetes mellitus can cause abnormal myocardial energy metabolism and cardiac dysfunction. Hu et al. [3] detected and quantified a total of 36 FFAs in plasma samples of healthy control group, T2DM group and T2DM coronary heart disease group. Linoleic acid [FA 18:2] is the most abundant FFA in plasma, followed by oleic acid [FA 18:1], palmitic acid [FA 16:0] and stearic acid [FA 18:0]. Other FFAs with high plasma abundance include palmitoleic acid [FA 16:1], alpha linolenic acid [FA 18:3n-3], arachidonic acid [FA 20:4], and docosahexaenoic acid [FA 22:6]. FFAs levels in T2DM-CHD group were significantly higher than those in T2DM group, and FFAs levels in T2DM group were significantly higher than those in healthy control group.

3. Study on the mechanism of free fatty acids on insulin resistance

Lipotoxicity caused by excess FFA accumulation can lead to abnormal physiological function and metabolic activity of endothelial cells, impair the function of islet beta cells, and increase insulin resistance. The main mechanism [4]is to affect the normal uptake, conversion and utilization of glucose and damage the insulin signal transduction pathway through glucose-fatty acid cycle, production of products in lipid metabolism, mitochondrial function damage and activation of inflammatory signals.

Conclusion

Excessive free fatty acids will cause the body to be in a chronic inflammatory response, which will cause irreversible damage to the body. Therefore, the screening of early biomarkers is of great significance for the prevention of T2DM. This article summarizes the changes of common free fatty acids in T2DM, such as palmitic acid, linolenic acid, etc., showing an upward trend. In addition, clinical measures such as regulating lipids, anti-inflammatory or anti-oxidation can be taken to reduce the level of FFA in circulation to achieve more ideal treatment purposes.

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CLINICAL STUDY ON THE TREATMENT OF CERVICAL SPONDYLOTIC RADICULOPATHY WITH TIAOSHEN TONGJING ZHITONG ACUPUNCTURE

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Abstract. Cervical Spondylotic Radiculopathy (CSR) is one of the common types of Cervical Spondylosis. The incidence of CSR accounts for about 50% to 60% of all Cervical Spondylosis [1]. The main clinical symptoms are one-sided or two-sided localized pain in the neck, electric shock-like radioactive pain at the root of the neck to the shoulder, upper arm, forearm, and even fingers, and numbness, or predominantly pain; some patients may have dizziness, ear pain, decreased grip strength and muscle atrophy, and there is often no pain in the neck of such patients [2]. Acupuncture treatment of CSR is safe, reliable, simple, and effective. The purpose of this study is to explore the clinical efficacy of Tiaoshen Tongjing Zhitong acupuncture and conventional acupuncture in the treatment of CSR. The two groups of clinical data collected were statistically analyzed under the guidance of mentors to observe whether there is a significant difference between the two acupuncture methods, so as to demonstrate the effectiveness of Tiaoshen Tongjing Zhitong acupuncture in the treatment of CSR, in order to better guide and serve the clinic in the future.

Keywords: Tiaoshen Tongjing Zhitong acupuncture; Cervical Spondylotic Radiculopathy; Acupuncture

Objective

To observe and compare the clinical efficacy of Tiaoshen Tongjing Zhitong acupuncture and conventional acupuncture in the treatment of Cervical Spondylotic Radiculopathy (CSR), and to demonstrate the feasibility of Tiaoshen Tongjing Zhitong acupuncture in the treatment of CSR.

Materials and methods

60 patients with CSR were randomly divided into treatment group (n=30) and control group (n=30). The treatment group was treated with Tiaoshen Tongjing Zhitong acupuncture, while the control group was treated with conventional acupuncture. The treatment group selected Baihui (DU20), Left Shencong (EX-HN1), Right Shencong (EX-HN1), neck Jiaji (EX-B2, double), Tianzhu (BL10, double), Dazhui (DU14), Shousanli (LI10, double), Hegu (LI4, double), Zhongzhu (SJ3, double), Houxi (SI3, double) and Ashi acupoints for acupuncture treatment. The control group selected neck Jiaji (EX-B2, double), Shenmai (BL62, double), Tianzhu (BL10, double), Houxi (SI3, double) and Ashi acupoints for acupuncture treatment. Patients in the two groups received treatment once a day, needle retention 50min/ times, continuous treatment for 6 days a week, rest for 1 day, a total of 3 weeks. The simplified Mc-Gill pain questionnaire (SF-MPQ) score and cervical spondylosis symptom and sign scale score of 20 points were compared between the two groups before and after treatment. To observe and compare the clinical efficacy of Tiaoshen Tongjing Zhitong acupuncture and conventional acupuncture in the treatment of CSR, and the clinical data obtained were statistically analyzed by SPSS23.0.

Results and discussion

The simplified Mc-Gill pain questionnaire scores of the two groups after treatment were significantly lower than those before treatment, and the treatment group was better than the control group ($P<0.05$); The scores of 20 subscale of cervical spondylosis symptoms and signs in both groups after treatment were significantly higher than those before treatment ($P<0.05$), and the treatment group was better than the control group ($P<0.05$); After treatment, the total effective rate of the treatment group was 93.10%, and that of the control group was 82.14%. After statistical analysis, there was a significant difference ($P<0.05$), indicating that the clinical effect of Tiaoshen Tongjing Zhitong acupuncture in the treatment of CSR is better than that of conventional acupuncture. The acupuncture method of regulating the mind and relieving pain pays attention to the disease as a whole, starting with «regulating the mind», through acupuncture at DU20, left and right EX-HN1 and DU14, take the lead in mobilizing the meridian qi of the whole body, in order to help the subsequent acupuncture of other acupoints to get qi better. Then through acupuncture on both sides of the EX-B2, BL10, LI10, LI4, SJ3, SI3 and Ashi points, so that the meridians can be unblocked, guide the meridian downward, along the meridian sensation, so that qi to the disease, qi is in harmony with the blood, so all the diseases can be relieved. This method is based on the guiding ideology of overall regulating mind and guiding qi, local menstruation and pain relief, and adopts the principle of selecting acupoints at proximal and distal end, syndrome differentiation and experience, and achieves satisfactory clinical effect in the treatment of CSR, which is worthy of clinical application.

Conclusion

Both Tiaoshen Tongjing Zhitong acupuncture and conventional acupuncture can relieve pain in CSR, and Tiaoshen Tongjing Zhitong acupuncture

is superior to conventional acupuncture; Both Tiaoshen Tongjing Zhitong acupuncture and conventional acupuncture can significantly improve the scores of symptoms and signs in the treatment of CSR, and Tiaoshen Tongjing Zhitong acupuncture is superior to conventional acupuncture; The curative effect of Tiaoshen Tongjing Zhitong acupuncture on CSR is significantly better than that of conventional acupuncture.

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STUDY ON PHARMACY AND TOXICOLOGY OF QIGUI SHENGXUE PILL

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Abstract. Qigui Shengxue decoction is a preparation in the first affiliated hospital of our school, which has the effects of nourishing yin and kidney, benefiting qi and nourishing blood. Clinically, it has been used to treat blood stasis syndrome for more than 30 years, and the effect is remarkable. Guided by the theory of traditional Chinese medicine, our research group studied the preparation technology, quality standards, toxicology and other aspects, and made it into pills in order to speed up the reform of traditional dosage forms. The preparation technology of Qigui Shengxue Pill determined in this study is stable and feasible, and the established quality standard is high, with no obvious toxic and side effects.

Keywords: Qigui Shengxue Pill; Preparation technology; Quality standards; toxicology

Qigui Shengxue Decoction is composed of 14 Chinese herbs, including Angelica sinensis, Radix Astragali, Radix Rehmanniae Preparata, Radix Rehmanniae, Polygoni Multiflori (processed), Corni Fructus, Ginseng Radix, Radix Glycyrrhizae (honey-baked), Radix Ophiopogonis, Radix Asparagi, Fructus Ligustri Lucidi, Colla Corii Asini, Fructus Amomi, Caulis Spatholobi, etc. It has the functions of nourishing yin and kidney, benefiting qi and nourishing blood. Clinically, it has been used to treat blood stasis syndrome for more than 30 years, and the effect is remarkable.

Objective

The original prescription is decoction, which is not easy to store. Under the guidance of the theory of traditional Chinese medicine, our research group studied the preparation technology, quality standards, toxicology and other aspects, and made the prescription into pills in order to speed up the reform of hospital preparations and give full play to its advantages.

Materials and methods

1. Preparation technology

The effects of powder fineness (80 mesh, 100 mesh and 120 mesh), honey refining degree (tender honey, medium honey and old honey) and honey refining dosage (1.0 times, 1.3 times and 1.5 times) on the formation of large honey pills were investigated. Taking the comprehensive score (color, taste, hardness and viscosity) as the index, the best molding technology of honey pills was investigated. Carry out pilot production to verify the feasibility and stability of the process.

2. Quality standard

Describe the characteristics of Qigui Shengxue Pill; The ginseng in Damiwan was identified qualitatively by microscopic method. 14 kinds of medicinal materials in Damiwan were identified qualitatively by TLC. And according to the «China Pharmacopoeia» 2020 edition of the general principles of pills under the provisions of the project for inspection; The content of ferulic acid in three batches of honey pills was determined by HPLC, and the content limit was established to determine its extract. The linear relationship and precision were investigated by methodology, and the draft quality standard was established.

3. Toxicological study

Acute toxicity and long-term toxicity tests were carried out in KM mice and SD rats respectively. In the acute toxicity test, the maximum concentration

of Qigui Shengxue Pill (0.6g/ml) and the maximum tolerable volume of mice (40ml/kg) were given by gavage, three times a day, and the maximum tolerated dose was determined. Observe the weight change of mice and whether there are obvious lesions in main organs; In the long-term toxicity experiment, the maximum concentration of Qigui Shengxue Pill (0.6g/ml) and the maximum tolerable volume of rats (15ml/kg) were given orally twice a day, and the main hematological parameters of rats were compared with those of the blank group.

Results and discussion

1. Preparation technology

According to the results of orthogonal experiment, the preparation process was determined. The Chinese herbal pieces were crushed, sieved with 100 mesh sieve, mixed with Chinese honey evenly at a ratio of 1: 1.3 to make soft materials, and put into a pill making machine to rub pills. After pilot scale-up production, the feasibility and stability of the process are verified.

2. Study on quality standard

The microscopic identification method of ginseng was established. The TLC identification method of seven kinds of drugs, such as angelica, was established and included in the quality standard. The properties, moisture and other indexes of three batches of pilot honey pills were investigated, which were in line with the relevant regulations under pills in the current Pharmacopoeia. The content determination method of ferulic acid was established, and the content of three batches of pilot samples was determined. It was determined that ferulic acid should not be less than 0.1644 mg/pill. The quality standard of Qigui Shengxue Pill was established and the draft quality standard was drawn up.

3. Toxicity study

After 12 weeks of long-term toxic administration and 4 weeks of recovery period, and 2 weeks of acute toxic administration and 2 weeks of recovery period, there was no obvious toxic reaction in mice or rats in each dose group, and there was no pathological change related to Qigui Shengxue Pill in the visual inspection and pathological examination of organs in mice in each administration group and blank control group, indicating that Qigui Shengxue Pill had no long-term toxicity to mice or rats.

Conclusion

The preparation technology of Qigui Shengxue Pill determined in this study is stable and feasible, which is suitable for industrial production and can bring economic benefits. A comprehensive and systematic quality standard has been established to ensure the controllable quality of pills and the safe and effective clinical use. Has no obvious toxic and side effects, and can be safely eaten.

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RAPID DETERMINATION OF TRYPTOPHAN BY FERROCENE-FUNCTIONALIZED MULTIWALLED CARBON NANOTUBES AND MOLECULARLY IMPRINTED POLYMER MODIFIED GLASSY CARBON ELECTRODE

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Abstract. In this work, a novel type of molecularly imprinted electrochemical sensor (MIES) has been fabricated based on the polymerization of molecularly imprinted polymers (MIPs) on a glassy carbon electrode (GCE) modified with ferrocene-functionalized multi-walled carbon nanotubes (MWCNTs) for determination of tryptophan (Trp). The GCE is modified with ferrocene-functionalized MWCNTs to significantly improve the signal response. The MIPs are prepared by polymerization in DMSO with Trp as the template molecule, MAA as the functional monomer and ethylene glycol EGDMA as the cross-linking agent. Under the optimal conditions, the linear range of the sensor is 1 mM - 330 mM, the detection limit (LOD) is 0.02 μM (S/N = 3), and it also has good repeatability and specificity. The results for detecting Trp in real samples are satisfactory, which proves the practicability of the method.

Keywords: Electrochemical sensor, Molecularly imprinted polymer, Tryptophan, Ferrocene, Multi-walled carbon nanotubes

Trp is one of the eight essential amino acids of the human body. The level of Trp is considered to be closely related to many diseases. The quantitative analysis of Trp has become extremely important in medicine and clinical aspects. Electrochemical methods have many excellent characteristics such

as fast response, simple preparation, low cost. Ferrocene (Fc) has good stability, redox property and is an excellent electron transfer medium. MWCNTs have good mechanical properties, large specific surface area and excellent electrical conductivity [1]. The synergistic effect of Fc and MWCNTs can make the composites have strong electrochemical activity and electron transfer ability.

Molecularly imprinted polymers (MIPs) have been recognized as the composite material with a specific binding site formed by polymerizing in the presence of a cross-linking agent, the template molecule and the selected functional monomer [2]. MIPs have excellent chemical properties and selectivity, and are often combined with electrochemical technology to prepare sensors.

Objective

In this experiment, to prepare a high performance Trp sensor based on ferrocene-functionalized multiwalled carbon nanotubes and molecularly imprinted polymer.

Materials and methods

Synthesis of Fc-MWCNTs: Add 5 mg MWCNTs into 50 mL of 10 mM Fc mixed solution (DMF : water = 1 : 4), ultrasonic for 2 h, vigorously stir at room temperature for 6 h, and centrifuge at 10000 rpm for 10 min to collect the composites. Repeated cleaning with DMF to remove unreacted substrate, and then drying in 70 °C oven to obtain the final product Fc-MWCNTs.

Preparation of Fc-MWCNTs/GCE: Add 2 mg Fc-MWCNTs composite into 1.5 mL DMF solution, and ultrasonically disperse it for 2 h at room temperature. 10 μL suspension was dripped on the pretreated blank electrode surface with a pipette gun, and dried overnight at room temperature to obtain the composite electrode Fc-MWCNTs/GCE.

There-electrode system used to perform electrochemical studies. CHI-760E electrocatalytic workstation was functional to carry out the electrochemical measurements. The experimental temperature was 20 - 25 °C, and the solution in the system was 10 mL of 0.1 M PBS with different pH. After repeated scans until the baseline stabilized, analytes were added for detection. In this paper, the electrochemical performance of the composite electrode was evaluated by DPV and CV.

Results and discussion

CV curve was measured by changing the scanning speed (10 mV/s - 100 mV/s) by CV method, and the effective active surface area of modified electrode was calculated. It is calculated that the electroactive surface area of the modified electrode is 4.182 cm2, which is much larger than that of the bare glassy carbon electrode by 0.0707 cm2, which shows that the modified electrode can obviously enhance the electrochemical performance.

The linear range and detection limit were determined by DPV method in pH = 6 PBS. With the concentration of tryptophan increasing gradually, the peak current value becomes larger. The results show that the concentration of tryptophan is linear with the peak current in the range of 1 μM - 45 μM and 45 μM - 330 μM, and the detection limit (S/N = 3) is 0.02 μM. Compared with some previously reported electrodes, this experiment has wider linear range, lower detection limit and better detection performance.

The feasibility of this method in practical application was studied with amino acid oral liquid and human serum samples by DPV method. Measure 100 μL of amino acid oral liquid and 1 mL of serum into 10 mL volumetric flask respectively, and then use pH = 6 PBS for constant volume.The results showed that the recovery rate of Trp in acid in human serum samples was 94.2% - 105.30%, in amino acid oral liquid was 94.3% - 101.68%, and the RSD was about 4.02% and 2.89% respectively. This shows that the sensor has certain practicability and reliability in drug analysis.

The results show that the molecularly imprinted sensor made in this experiment is expected to be a sensitive nano-material for the detection of tryptophan.

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CLINICAL STUDY ON THE TREATMENT OF CERVICAL HIGH-RISK HPV INFECTION PATIENTS WITH HAN'S FUYAN DECOCTION COMBINED WITH YOU JINGAN

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Abstract. A total of 40 patients with high-risk HPV were included in this study, randomly divided into 20 patients each of the treatment group and the control group. The treatment group was treated with Han's Fuyan Decoction combined with You Jingan, and the control group was treated with You Jingan, then to observe the changes of symptoms, TCM syndrome and HPV DNA before and after treatment. The results showed that the treatment group was better than the control group in improving the symptoms, removing HPV virus and improving the HPV turning rate, which indicated that the combined treatment of Chinese and western medicine for high-risk HPV infection is worthy of clinical promotion and further study.

Keywords: Han's Fuyan Decoction, You Jingan, HPV infection, cervical cancer, HPV virus load

Human papillomavirus, as a dermal and mucosal pathogenic toxin, can be divided into low risk and high risk type according to the possibility of causing cancer. Studies have shown that high-risk HPV is the main cause of cervical cancer. As a malignant tumor second only to breast cancer, the incidence of cervical cancer has been rapidly increasing year by year, and more and more younger. It is reported that half a million new cases of cervical cancer are diagnosed each year worldwide, about 130,000 new cervical cancer cases each year in China, of which 53,000 women die from the disease. Therefore, for the early diagnosis and treatment of high-risk HPV infection, blocking the development of the course of the disease, has become the top priority of cervical cancer prevention and treatment.

Western medicine usually uses interferon, cidofovir and other drugs to treat cervical cancer, however, it has a low turning rate and a high recurrence rate, and has been controversial. In recent years, with the advent of the cervical cancer vaccine, cervical cancer is the only cancer that can be prevented, but because of its high price, vaccine scarcity and other problems, it has not been popularized nationwide. Traditional Chinese medicine believes that the cause of the disease lies in the spleen and kidney, and the invasion of dampness-heat and dampness-poison. Han's Fuyan Decoction as the empirical prescription of Longjiang Han's gynecology, my teacher used it to clear heat and detoxification through syndrome differentiation treatment, combined with You Jingan to treat HPV infection and the clinical effect is very good.

Objective

Through the treatment of cervical high-risk HPV infection patients with Han's Fuyan Decoction combined with You Jingan, to observe the clinical effect, and to evaluate the clinical application value of the combination drug, so as to provide more effective treatment plan for cervical high-risk HPV patients and reduce the occurrence of cervical cancer lesions.

Materials and methods

Forty female patients diagnosed with cervical high-risk HPV infection were randomly divided into treatment and control groups, the treatment group was given Han's Fuyan Decoction combined with You Jingan for combined treatment, and the control group was simply given You Jingan treatment, 30 days as a course of treatment, continuous use of 3 courses. By observing and evaluating the changes of HPV viral load, the grade change of TCT liquid based cells, and the degree of improvement of TCM clinical symptoms in the two groups, the comparison between themselves and between groups were analyzed.

Results and discussion

The combination of Han's Fuyan Decoction combined with You Jingan and You Jingan alone can alleviate the clinical symptoms of TCM in patients with cervical high-risk HPV infection, reduce the viral load of cervical high-risk HPV, and improve the TCT of patients to a certain extent. The relevant data of the treatment group after treatment: TCM clinical symptom score 7.45±2.27, effective rate 95%, TCT cure rate 25%, high-risk HPV viral load 53.64±10.87, negative rate 35%, effective rate 95%; The relevant data of control group after treatment: TCM clinical symptom score 11.35±2.85, effective rate 80%, TCT cure rate 20%, high-risk HPV viral load 211.34±43.53, negative rate 15%, effective rate 75%. The data of treatment group were better than that of control group.

The results show that the treatment of cervical high-risk HPV infection patients with Han's Fuyan Decoction combined with You Jingan, is better than You jingan treatment in improving symptoms and clearing HPV virus, increasing the negative rate of HPV, and it also has a good effect on the grade

changes of TCT, the effect is obvious, non-toxic side effects, so it is widely promoted and applied in clinic.

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INNOVATIVE TREATMENT OF DIABETIC PERIPHERAL NEUROPATHY BY TRADITIONAL CHINESE MEDICINE

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Abstract. Diabetic peripheral neuropathy is developed from diabetes, that is, chronic thirst disease in TCM, deficiency of liver and kidney Yin, deficiency of Qi and blood, and obstruction of choriostasis. Buyang Huanwu Decoction is a classic prescription for treating Qi-deficiency and blood-stasis syndrome. In this paper, the therapeutic effect of Buyang Huanwu Decoction on diabetic peripheral neuropathy and its influence on insulin-like growth factor 1 (IGF-1) are observed. It is concluded that Buyang Huanwu Decoction may exert its therapeutic effect on diabetic peripheral neuropathy through its influence on IGF-1.

Keywords: Buyang Huanwu decoction, Diabetic peripheral neuropathy, IGF-1

Sixty patients with diabetic peripheral neuropathy admitted to the First Affiliated Hospital of Heilongjiang University of Chinese Medicine were randomly divided into control group and experimental group. The control group was given mecobalamine orally, and the experimental group was given mecobalamine and Buyang Huanwu decoction orally. The TCM syndrome score (MDNS score) and serum IGF-1 level of the patients in the two groups were observed. It is concluded that Buyang Huanwu Decoction may play a therapeutic effect on diabetic peripheral neuropathy by increasing the level of IGF-1.

Objective

Through the TCM syndrome score of MDNS and the level of serum IGF-1, the therapeutic effect of Buyang Huanwu Decoction was judged indirectly.

Materials and methods

SPSS 17.0 statistical software was used for data analysis. The results were expressed as mean±standard deviation ($\bar{x} \pm s$), and the measurement data were tested by t. Statistical data were measured by x^2 test. Pearson correlation analysis was used for correlation analysis. Grade data were analyzed by Ridit, P<0.05 was statistically significant.

Results and discussion

There was no significant difference in TCM syndrome scores between the two groups before treatment (P>0.05), after treatment, TCM syndrome scores in both groups were significantly reduced, with statistical significance (P<0.05); Patients in the treatment group improved significantly compared with the control group (P<0.05).

The effective rate of treatment group was 93.3%, the effective rate of control group was 76.67%, and the effective rate of treatment group was more significant (P<0.05), the difference was statistically significant.

There was no significant difference in MDNS scores between the two groups before treatment (P>0.05), MDNS scores in both groups were significantly lower after treatment than before treatment (P<0.05), compared with the control group, the score of the treatment group decreased more significantly, and the difference was statistically significant (P<0.05).

There was no significant difference in serum IGF-1 between the two groups before treatment.

Serum IGF-1 levels in both groups were significantly increased after treatment (P<0.05), the level of IGF-1 in the treatment group was significantly higher than that in the control group, with statistical significance (P<0.05).

The correlation between serum IGF-1 level and MDNS score after treatment showed that there was a significant negative correlation between IGF-1 level and MDNS score.

The results of this study showed that Buyang Huanwu decoction on the basis of methcobalamin treatment could further improve the peripheral nerve function of DPN patients and increase the level of serum IGF-1. Serum IGF-1 level was also significantly correlated with MDNS score.

Diabetic peripheral neuropathy is a common chronic microvascular complication of diabetes. Due to long-term hyperglycemia in diabetic patients, neurotoxic metabolites such as sorbitol and polyol can be produced, causing nerve myelin damage and axon necrosis. The enhancement of oxidation reaction causes the increase of oxygen free radicals, damages mitochondria and DNA, and leads to the destruction of nerve tissue [1]. IGF-1 can promote the formation of myelin sheath and axon, and play a decisive role in the repair and regeneration of neurons [2]. Studies have confirmed that the serum level of IGF-1 in diabetic patients is significantly lower than that in healthy people[3]. From the perspective of traditional Chinese medicine, Buyang Huanwu Decoction has the effect of activating blood and clearing collages, benefiting temperature Yang, and effectively alleviating the symptoms of lower limb coolness, numbness and pain caused by DPN. From the perspective of modern medicine, Buyang Huanwu Decoction can increase the level of serum IGF-1. Therefore, the application of Buyang Huanwu Decoction is an innovative treatment of traditional Chinese medicine in the treatment of DPN.

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THE CLINICAL PROTOCOL OF TRADITIONAL CHINESE MEDICINE UTILIZED IN MANAGING SIMPLE OBESITY

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Abstract. This paper presents a clinical approach to traditional Chinese medicine focusing on Pelian Mahuang decoction as the core treatment for managing simple obesity characterized by stomach heat and damp obstruction. The clinical trials were carefully planned, and statistical methods were employed to analyze the research outcomes. The results demonstrated that the prescribed treatment significantly reduced the body weight and BMI index of obese patients, alleviated blood lipid indicators, and thereby exhibited a more effective approach to treating obesity.

Keywords: Simple obesity, Traditional Chinese medicine, Pelian Mahuang decoction, Stomach heat and damp obstruction

The World Health Organization defines obesity as abnormal or excessive fat accumulation that poses a risk to health, and the Epidemiology of Obesity published in 2022 points out that obesity and its comorbidities may become another pandemic after the COVID-19 pandemic [1]. Simple obesity refers to obesity that occurs without apparent endocrine and metabolic disorders or drug-induced causes. Through continuous exploration and clinical practice, Traditional Chinese Medicine (TCM) has developed a relatively comprehensive treatment system.

Combined with holistic thinking and syndrome differentiation, traditional Chinese medicine can regulate the balance of the human body environment in the treatment of obesity, achieve internal and external treatment, treat both symptoms and root causes and restore the state of dynamic balance.

Peilian Mahuang decoction consists of three herbs. In the prescription, Rhizoma coptidis is a

bitter flavour and cold Chinese medicine, which is good at clearing stomach heat in the middle burner and can dry dampness and detoxify [2]. Herba Eupatorii is an aromatic Chinese medicinal herb that exhibits diuretic and expectorant effects, aiding in the elimination of excess moisture from the body; Ephedra is a pungent-dispersing Chinese medicinal herb, which is effective in inducing perspiration, relieving exterior syndromes, promoting diuresis, and reducing swelling [3]. The combination of the three herbs plays the functions of clearing and reducing stomach heat, removing dampness and phlegm, and promoting water and reducing swelling, which is the fundamental prescription for obesity.

Objective

The effectiveness of Peilian Mahuang decoction was indirectly assessed based on changes in the body weight, body mass index (BMI), waist-to-hip ratio (WHR), and blood lipid indexes of simple obesity patients with stomach heat and damp obstruction.

Materials and methods

SPSS statistical software was used for data analysis. The measurement data were expressed by (±s) and analyzed by t test. Count data were analyzed by $\chi 2$ test. $P<0.05$ was considered statistically significant. The patients who met the diagnostic criteria of simple obesity with stomach heat and dampness obstruction from the First Affiliated Hospital of Heilongjiang University of Chinese Medicine were treated with basic treatment (diet control and moderate aerobic exercise) and basic treatment plus traditional Chinese medicine decoction Peilian Mahuang decoction, and the curative effect was observed.

Results and discussion

After 12 weeks of treatment, using the value as the calculation object, the body weight was reduced by 12.4% in the treatment group, the body weight of the control group decreased by 7.6%. BMI decreased by 11.1% in the treatment group and 7.7% in the control group ($P<0.05$), which was statistically significant. WHR had little change before and after treatment in both groups.

Blood lipid parameters (total cholesterol (TC), triglyceride (TG), low-density lipoprotein cholesterol (LDL-C)) were compared. TC decreased by 13.9% and 5.0% in the treatment group and the control group, respectively. The TG treatment group and the control group decreased by 29.8% and 11.2%, respectively; LDL-C in the treatment group and the control group decreased by 16.5% and 2.1%, respectively.

The results showed that on the basis of the control group, Peilian Mahuang decoction could further reduce the body weight and BMI, and significantly improve the blood lipid indexes in patients with simple obesity. Therefore, this prescription is more worthy of clinical promotion.

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CLINICAL RESEARCH PROGRESS IN ACUPUNCTURE IN THE TREATMENT OF ALLERGIC RHINITIS

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Abstract. In recent years, acupuncture has made some progress in the treatment of allergic rhinitis, and it is safe, efficient and has few side effects. In order to explore the development status of acupuncture in the treatment of allergic rhinitis, the relevant literature on the treatment of allergic rhinitis in recent years was reviewed, and the influence of acupuncture therapy on this disease and cases were reviewed, its advantages and existing problems were summarized, and the next research ideas and directions were proposed for reference.

Keywords: acupuncture; Allergic rhinitis;Clinical research; Traditional Chinese medicine; Review

Allergic rhinitis (AR) is an IgE-mediated inflammatory disease of the nasal mucosa induced by airborne allergens such as grass pollen, weed pollen mold, dust mites, and animal dander. AR is characterized by symptoms such as runny nose, paroxysmal sneezing, nasal pruritus, nasal congestion, and lacrimation [1]. The research progress on the effect of acupuncture on AR in recent years is reviewed, in order to provide a reference for acupuncture in the treatment of AR.

Clinical treatment of allergic rhinitis by acupuncture

Du Yanling [2] treated the patients with acupuncture and found that the serum IFN-γ and IL-4 levels in the treatment group improved better than those in the control group. Gao Shanshan [3] used simple acupuncture treatment for the control group of AR patients, and the treatment group applied wheat grain moxibustion to the two acupoints of the bladder meridian on the basis of the control group. The results showed that the IFN-γ level in the treatment group was more significantly higher than that in the control group, and the IL-4 content was more significantly lower than that in the control group.Chang Xiuwu [4] gave oral loratadine tablets to the control group, and the observation group received acupuncture sphenopalatine ganglion combined with three-volt patch on this basis. The results showed that the serum total IgE content and TNSS score of the observation group were significantly lower than those in the control group.Liu Wenyu [5]. The control group was given acupuncture treatment, and 39 cases in the treatment group were given thread lift therapy on the basis of the treatment of the control group, and after the treatment, the effective rate of the control group was 69.23%; The effective rate of the treatment group was 92.31%.Li Shufang [6] gave the patient jade screen granules combined with acupuncture sphenopalatine ganglion treatment, comparing the traditional Chinese medicine group with the western medicine group. Results The improvement levels of serum IL-4, IgE and IFN-γ after treatment in the combination group were better than those in the other two groups.

Results and discussion

There are still some problems in the treatment of acupuncture in AR, which are worth thinking about and studying. Most of the clinical research on the treatment of AR by traditional Chinese medicine is mainly based on subjective evaluation scales, which lack the research on the objective evaluation indicators with the nature of evidence required by evidence-based medicine for clinical research, and the evaluation of clinical efficacy is unconvincing and scientific. There are relatively many treatments in traditional Chinese medicine, and whether each treatment method is suitable for all patients' constitution remains to be studied.

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PROSPECTS FOR THE APPLICATION OF INTELLIGENT METHODOLOGY TECHNOLOGIES AFTER EMPOWERING TRADITIONAL CHINESE MEDICINE

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Abstract. «Internet+» has led to widespread use. Combining it with Traditional Chinese Medicine(TCM) is inevitable. Intelligent methods and technologies such as blockchain technology, Artificial Intelligence(AI) technology, and Mobile Internet(MI) technology have positive effects on TCM development. Innovative TCM diagnosis and treatment has great potential for improvement. Widespread use of these methods in TCM will better protect people's health.

Keywords: Traditional Chinese Medicine; innovative diagnostic and treatment methods; blockchain technology; Artificial Intelligence technology; Mobile Internet technology

The Chinese government released the Outline of Strategic Planning for the Development of Traditional Chinese Medicine (2016-2030) in 2016. The document proposed a plan to integrate «Internet+» with TCM medical care, and promote the development of TCM telemedicine, intelligent medical care, mobile medical care, and other new medical service modes. The ultimate goal is to make intelligent TCM accessible to households. To achieve this goal, blockchain technology, Artificial Intelligence(AI) technology, Mobile Internet(MI) technology, and other intelligent methods and technologies need to be jointly supported as they are essential for the development of TCM.

Blockchain technology making TCM information transparent

Blockchain technology combines peer-to-peer communication and encryption to create a trustworthy information storage and processing system. This technology can be classified into public chains, private chains, and joint chains, depending on the different editing methods of the data or the people involved. Blockchain technology can improve the transparency of the procurement process for genuine regional drugs, making the market more open and accessible. This will result in the wider application of herbs. The verifiable clinical efficacy of genuine regional drugs can streamline clinicians' prescriptions, reducing the use of «generous» and «heavy» prescriptions. This will not only make the therapeutic efficacy of genuine regional drug prescriptions more stable, but it will also greatly enhance the cost-effectiveness of the prescriptions and increase public acceptance of TCM.

AI Technology Making TCM Clinical Practice Efficient

TCM practitioners rely on observation and communication to diagnose illnesses. Despite its flourishing, the process of TCM clinical is too long and complex. Recently, AI has helped to improve the efficiency and accuracy of TCM diagnosis and treatment. By analyzing large amounts of clinical data, AI can identify patterns and make predictions about new cases. It can also accurately interpret medical images to aid in diagnosis. Additionally, AI can organize and simplify complex medical data into a user-friendly knowledge structure. By comparing patient data and treatment experiences from previous cases in a database, AI can quickly formulate treatment plans and opinions, streamlining the clinical process and improving treatment efficiency. Overall, AI is helping to make TCM diagnosis and treatment more efficient and effective.

MI Technology Making TCM Clinical Practice Intelligent

The MI industry utilizes wireless communication to provide business and services through a smart mobile device consisting of three components: terminal, software, and application. The aim of MI is to enable the personalized TCM diagnosis and treatment service model of «intelligent diagnosis and treatment - precise preparation - intelligent decoction - flexible manufacturing» to be more accessible to people, thereby reducing the burden of the «last kilometer» in treatment. «Intelligent Diagnosis and Treatment» helps patients save time in seeking treatment, while «Precise Dispensing» reduces errors in traditional manually dispensing TCM prescriptions. «Intelligent Decoction» reduces operating errors caused by the lengthy boiling time and complicated process of preparing herbs prescriptions. «Flexible Manufacturing» ensures quality control of raw materials and is more adaptable than traditional production methods. The combination of these four elements forms the personalized diagnosis and treatment model of mobile connectivity. The integration of online and offline systems through mobile connectivity allows for the quick response to patients' needs by uploading their information to cloud-based data, thereby reducing the likelihood of Gresham's Law .

Currently, innovative methods are being developed in the field of TCM, including blockchain technology, AI technology, and MI technology.

These intelligent methods and technologies are gradually being applied in clinical practice, resulting in significant improvements in diagnosis and treatment efficiency. However, there is still a need for further information iteration and industrial upgrading. By utilizing these intelligent technologies, medical institutions and the manufacturing industry can better serve patients, resulting in a virtuous circle of improved technical support for patients and clinicians.

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CLINICAL RESEARCH PROGRESS OF ACUPUNCTURE IN THE TREATMENT OF RESTLESS LEG SYNDROME

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Abstract. Restless leg syndrome (RLS) is characterized by abnormal sensations such as pain, itching and insect sensation at night or during rest.These symptoms interfere with the normal sleep structure of patients and affect daytime function.In recent years, acupuncture has a good effect on RLS.This paper collates the results of relevant clinical trials in recent years, in order to provide theoretical reference for clinical treatment of RLS.

Keywords: Acupuncture; Restless leg syndrome; Research progress

Restless leg syndrome is characterized by uncontrolled movement of the legs,mainly at night or during rest.The clinical manifestations are pain,itching,insect sensation and other abnormal sensation [1].The prevalence rate is low in Asia and South America,about1.6% to 2.0%.The average age of onset of RLS is between 30 and 40 years old.Compared with men,women over 35 years old are twice as likely to develop the disease as men [2].The etiology of primary RLS is not clear,and some of it is related to genetic factors,such as familial RLS.Secondary RLS is common in chronic renal failure,diabetes,liver disease,autoimmune disease,peripheral neuropathy and even pregnancy [3].Western medicine treatment is mainly drug treatment,but the effect is not good.Acupuncture is widely used in clinic because of its remarkable curative effect and no side effects.In this paper,the main acupuncture methods are summarized in order to provide theoretical reference for clinical treatment of RLS.

1. Scalp acupuncture combined with recovery needling

Acupuncture at the acupoints of the head can regulate the qi and blood of the whole body, and acupuncture in the sensory area of the foot can effectively relieve the symptoms of restlessness in the lower extremities.Recovery acupuncture can relieve the tension and compression of diseased muscle, improve the microcirculation in this area, promote the recovery of tissue function, improve abnormal nerve transmission, and achieve the purpose of relieving muscle spasm, pain and sensory abnormality.Shang Yanjie et al. [4] conducted clinical observation on 40 RLS patients.The results showed that the total effective rate of the scalp acupuncture combined with recovery needling group was 95.0% (19/20),which was higher than that of the western medicine treatment group (65.0%). And the score of restless leg syndrome rating scale (IRLS) was lower than that before treatment, which could effectively alleviate and improve the symptoms of RLS and improve the quality of life of patients.It has certain clinical value.

2. Penetrating moxibustion combined with short and Guan acupuncture

The method of penetrating moxibustion is to make the sense of moxibustion penetrate into the

deep tissue and transmit to the distal part through moxibustion on the pulse of Ren and Du,so as to reconcile the qi and blood of Zang-fu organs. Both Guan acupuncture and short acupuncture have the advantages of deep acupuncture, large amount of stimulation,easy to get qi,and have better effect of relaxing muscles and dredging collaterals.Wang Liuyun et al. [5] observed the curative effect of 95 patients with RLS.The results showed that among the 45 patients treated by penetrating moxibustion combined with short and Guan acupuncture, 20 cases were cured, 16 cases were markedly effective, 7 cases were improved, and 2 cases were ineffective.The total effective rate was 95.6%,which was significantly higher than 42.2% in the control group. It can significantly improve the evaluation standard (RLSRS) score of restless leg syndrome, suggesting that penetrating moxibustion combined with short and Guan acupuncture is an effective method for the treatment of RLS, and its curative effect is better than that of conventional western medicine,so it is worth popularizing and using in clinic.

3. Acupuncture combined with medicine treatment

Studies have proved that acupuncture and traditional Chinese medicine prescriptions can regulate the function of human autonomic nervous system, and the combined use can have a double superposition effect[6].Guo Xia [7] treated 40 patients with RLS after stroke in the treatment group by Tongdu acupuncture combined with Danggui Sini decoction.The results showed that the total clinical effective rate of the control group was 77.50%(31/40), and that of the observation group was 95.00%(38/40).The results show that Tongdu acupuncture can effectively activate blood circulation and remove blood stasis in the lower limb movement and sensory area,dredge meridians,thus effectively promote the rehabilitation of patients and obtain good curative effect.

Conclusion

RLS is a common nervous system disease characterized by strong desire to move both lower limbs, but its pathogenesis is not clear.The effect of conventional western medicine treatment is not satisfactory,there is withdrawal syndrome after drug withdrawal,which can easily lead to serious adverse consequences.Acupuncture is often used in the treatment of RLS because of its advantages of less toxicity and side effects.It has a certain curative effect and is worthy of further clinical promotion.

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Abstract. «Internet+» has led to widespread use. Combining it with Traditional Chinese Medicine(TCM) is inevitable. Intelligent methods and technologies such as blockchain technology, Artificial Intelligence(AI) technology, and Mobile Internet(MI) technology have positive effects on TCM development. Innovative TCM diagnosis and treatment has great potential for improvement. Widespread use of these methods in TCM will better protect people's health.

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PROGRESS OF TRADITIONAL CHINESE MEDICINE IN THE TREATMENT OF PSYCHOSOMATIC DISEASES OF DIGESTIVE SYSTEM

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Abstract. Psychosomatic disease is the most extensive kind of disease in clinic at present,which makes psychosomatic medicine become one of the most popular research at present.This paper studies the treatment of psychosomatic diseases of digestive system in traditional Chinese medicine,which is conducive to the analysis of common psychosomatic diseases of digestive system in modern clinical practice.

Keywords: Traditional Chinese medicine; Psychosomatic diseases;Rview

Psychosomatic diseases refer to somatic organic diseases and somatic functional disorders inwhich psychosocial factors play an important role in the occurrence and development of diseases [1].The types and incidence of psychosomatic diseases of the digestive system rank firstamong psychosomatic diseases in internal medicine,and there is a gradual upward trend in recent years.Common diseases such as functional dyspepsia,irritable bowel syndrome,habitual constipation,reflux esophagitis,peptic ulcer,chronic pancreatitis,ulcerative colitis,etc.The body disease in traditional Chinese medicine belongs to the category of"depression".The TCM syndromes related to emotional factors in the field of digestion are plum kernel qi,stomachache,vomiting,hiccu ps,belching,choking,diarrhea,constipation,hypo chondriac pain and so on.Although the concept of psychosomatic diseases of digestive system is not clearly put forward in traditional Chinese medicine,it has a more advanced understandingof the understanding and treatment of psychosomatic diseases of digestive system [2].Traditional Chinese medicine is mainly used to treat psychosomatic diseases of digestive system,suchas drug treatment and acupuncture,so it will be analyzed from traditional Chinese medicine therapy and acupuncture therapy.

1.Traditional Chinese medicine treatment

According to different psychosomatic diseases of digestive system, there are different targeted traditional Chinese medicine prescriptions in traditional Chinese medicine.The methods used in the treatment more or less have the effects of emotional harmony,soothing the liver and relieving depression,harmonizing the stomach,tonifying qi and so on,which are suitable for psychosomatic diseases of the digestive system caused by emotional disorders.Professor Zhou Fusheng [3] based on the theory of "correlation between heart and stomach",through regulating the heart and calming the mind,he treated gastrointestinal patients with the method of soothing the liver and relieving depression to improve the symptoms of liver qi stagnation such as irritability,depression, insomnia and dreaminess,and achieved good clinical results.Qiu Mingyi [4] is good at using Bupleurum,Bergamot,Fructus Aurantii,Magnolia officinalis and other drugs in the treatment of stuffiness and fullness with obvious manifestation of liver depression and qi stagnation,which made the patient's liver recover the function of diarrhea and regulate qi,and the curative effect was remarkable.

2. Acupuncture treatment

Acupuncture has unique means and advantages in the treatment of digestive psychosomatic diseases, and has a good effect on eliminating symptoms. Xue Erping et al. [5] when using the method of acupuncture in the treatment of diarrhea with liver depression and spleen deficiency syndrome, select acupoints with the effects of soothing the liver and invigorating the spleen,such as Zusanli and Taichong,which has a good clinical effect and is not easy to be repeated. Zhuang Lixing[6]in the treatment of abdominal pain,liver depression and spleen deficiency syndrome selects Sishen needle, Shenting,Yintang and other acupoints combined with auricular point pressing therapy.After 1 month of treatment,the abdominal pain did not occur.

Conclusion

Traditional Chinese medicine has rich theoretical knowledge,rich clinical experience and unique diagnosis and treatment methods for the treatment of such diseases,which is of practical significance to the understanding, diagnosis and treatment of psychosomatic diseases in modern society.

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THE APPLICATION OF ACUPUNCTURE IN ALLEVIATING JOINT PAIN

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Abstract. Arthritis is a chronic condition characterized by joint pain, swelling, and other clinical manifestations that severely impact patients' quality of life. Acupuncture, as a unique biologic therapy, has demonstrated notable advantages and a wide range of potential applications in alleviating arthritis-related pain. Research suggests that Acupuncture exerts its analgesic effects through various pathways, including immune-inflammatory regulation, local microcirculation improvement, and modulation of the neuroendocrine system. Acupuncture, when used alone or in combination with other therapies, significantly reduces joint swelling, inflammation, and pain, leading to improved functional mobility. Despite these promising findings, more in-depth investigations and high-quality clinical studies are needed to fully understand the mechanisms of Acupuncture treatment for arthritis pain.

Keywords: Arthritis, joint pain, Acupuncture, Pain relief

1.Overview of the Clinical Characteristics and Treatment Methods for Arthritis:

Arthritis is a chronic degenerative disease with joint pain and swelling, encompassing types like osteoarthritis and rheumatoid arthritis. It involves synovial inflammation, cartilage damage, and bone remodeling, leading to joint deformities, functional impairments, and reduced quality of life. The disease's etiology remains unclear, potentially linked to genetics, immune responses, trauma, infections, and metabolic disorders. Patients experience severe localized joint pain, particularly during movement, along with morning stiffness and swelling. Western medical treatments include medication, surgery, and physical therapies, but they have limitations like drug-related gastrointestinal reactions and invasiveness.

2.Mechanisms of Acupuncture Treatment for Arthritis Pain:

2.1 Neuroregulation: Acupuncture stimulation in the skin and muscles can transmit signals to the central nervous system through nerve fibers, triggering analgesic responses. Acupuncture may activate the brain's analgesic systems, such as the hypothalamic-pituitary-adrenal (HPA) axis, releasing endogenous pain-modulating substances like endorphins and enkephalins, thereby interfering with or inhibiting pain-related nerve signals and reducing pain perception.

2.2 Endocrine Regulation: Research indicates that Acupuncture may influence the endocrine system, promoting the release of endogenous pain threshold substances. Among them, endorphins act as endogenous opioid-like substances with analgesic effects. Acupuncture can stimulate specific brain regions, leading to the release of endorphins and other natural pain-modulating substances, producing pain relief through interactions with opioid receptors in the central nervous system.

2.3 Anti-inflammatory Effects: Studies have shown that Acupuncture may regulate the immune system, affecting inflammatory responses and the release of inflammatory mediators. Acupuncture can decrease the levels of certain inflammatory mediators, such as tumor necrosis factor-alpha (TNF-α), interleukin-1beta (IL-1β), and interleukin-6 (IL-6), thereby reducing arthritis-induced inflammation and pain.

2.4 Promotion of Circulation: Acupuncture stimulation may increase blood and lymphatic circulation, improving local tissue blood supply and waste elimination. This is crucial for relieving arthritis-induced inflammation and pain, as well as facilitating tissue repair and regeneration.

3. Clinical Studies on Acupuncture Treatment for Arthritis Pain:

3.1 Acupuncture Monotherapy: Clinical Efficacy and Mechanism Studies: Extensive clinical trials

assessing Acupuncture monotherapy for arthritis-related pain have shown significant reductions in pain levels, improved joint function, and enhanced quality of life. Randomized controlled trials on osteoarthritis patients have reported lower VAS pain scores, reduced medication usage, and improved joint motion. Mechanistic investigations have revealed that Acupuncture's effects on arthritis pain involve neural-endocrine regulation, immune modulation, anti-inflammatory actions, and circulatory promotion. Experimental studies suggest that Acupuncture stimulates the brain's analgesic systems, leading to the release of endorphins and other natural pain threshold substances, effectively alleviating pain. Furthermore, Acupuncture's ability to regulate inflammatory mediators helps reduce arthritis-induced inflammatory responses, providing relief from arthritis pain.

3.2 Acupuncture Combined with Other Treatments:Acupuncture in conjunction with Medication and Physical Therapy: Numerous studies have examined the combination of Acupuncture with conventional drug therapies and physical treatments like heat therapy and physiotherapy. The results demonstrate that combining Acupuncture with medication enhances treatment outcomes, providing faster pain relief and symptom improvement. Similarly, the integration of Acupuncture with physical therapy shows promising results in reducing arthritis pain and improving joint function, leading to more effective arthritis rehabilitation.

4.Advantages and Prospects of Acupuncture Treatment for Arthritis:

4.1 Advantages of Acupuncture Treatment for Arthritis:Acupuncture offers high safety as a non-pharmacological and non-invasive therapy with non-toxic needles, avoiding adverse drug reactions and dependence, making it suitable for long-term and elderly patients. It provides comprehensive regulation by adopting a holistic approach, modulating multiple physiological systems to alleviate pain and improve arthritis inflammation. The personalized treatment approach tailors individualized plans based on the patient's specific condition, enhancing efficacy. As an adjunctive therapy, Acupuncture can complement conventional treatments, offering additional therapeutic benefits for arthritis patients with unsatisfactory results or limitations, expediting recovery.

4.2 Prospects of Acupuncture Treatment for Arthritis:In-depth Mechanism Research: Further in-depth basic research is needed to explore the molecular and cellular mechanisms of Acupuncture in neural regulation, endocrine regulation, and anti-inflammatory actions for arthritis treatment. Standardized Clinical Studies and Promotion: Conducting randomized controlled trials, multicenter studies, and high-quality clinical research are essential for evaluating the efficacy of Acupuncture treatment for arthritis. Additionally, efforts should be made to promote the application of Acupuncture treatment, taking advantage of its lower cost and fewer adverse reactions, benefiting a broader range of patients.

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VISUAL ANALYSIS OF ACUPUNCTURE TREATMENT FOR FACIAL PARALYSIS IN THE FIELD OF TRADITIONAL CHINESE MEDICINE

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Abstract. Purpose: This article analyzes that the development trend of acupuncture and moxibustion in the treatment of facial paralysis in the field of traditional Chinese medicine in the past 10 years is based on CiteSpace. Method:In this study, CiteSpace software was utilized to conduct a visual analysis of traditional Chinese medicine treatments for facial paralysis by searching the Chinese National Knowledge Infrastructure (CNKI) database for relevant Chinese literature. Through this approach, a more intuitive understanding can be obtained concerning the diagnostic and therapeutic methods for facial paralysis in this field .

Keywords: Facial paralysis, Traditional Chinese Medicine, Acupuncture, CiteSpace

1. Preface

Facial paralysis is a condition caused by damage to the facial nerve. Its primary feature is the dysfunction of facial expression muscles.

Clinically, it can affect individuals of any age and gender, and common symptoms include facial asymmetry, difficulty in closing the eyes or raising the eyebrows [1]. The incidence of facial paralysis is quite high [2], making effective treatment of this condition an important challenge to address.

2. Data Source

A search was conducted in the Chinese National Knowledge Infrastructure (CNKI) database with the following keywords: «facial paralysis traditional Chinese medicine,» «facial paralysis traditional Chinese herbs,» and «facial paralysis acupuncture.» The document type was limited to traditional Chinese medicine, and the time frame was set from January 1, 2012, to December 31, 2022. Only academic journals were selected for inclusion. A total of 1,201 relevant documents were retrieved during the search. After removing duplicates, theses, conference papers, newspaper articles, and 95 documents with incomplete information or unrelated content, a final set of 1,106 documents were included for analysis. The search was conducted on January 1, 2023.

3.Keyword Analysis

3.1 Keyword co-occurrence

The frequency of keywords is often used to reflect research hotspots and content trends [3]. An analysis of the Chinese National Knowledge Infrastructure (CNKI) database was conducted using Citespace 6.1.R6 software, .The data results indicate that acupuncture, warm acupuncture, and needle stimulation are the main research hotspots.

3.2 Prominent Keywords

A sudden emergence of keywords refers to those that experience a significant increase in frequency during a specific time period, indicating the level of attention given to certain research topics during that period [4]. A prominence analysis was conducted on the selected keywords from the CNKI database, resulting in 25 prominent keywords,. «Acupuncture,» «Acupuncture and Massage,» and «Warm Acupuncture» have remained consistent research hotspots over the past decade, signifying the significant effectiveness of acupuncture in the treatment of facial paralysis and supporting the feasibility of acupuncture intervention [5].

4. Discussion

Through the co-occurrence and prominence of keywords, it is evident that traditional Chinese medicine (TCM) treatment for facial paralysis primarily revolves around two aspects. First is the mechanism of action. Currently, the widely accepted view regarding the pathogenesis of facial paralysis is related to the unique course of the facial nerve or damage caused by external factors such as trauma, ischemia, or tumors, leading to facial paralysis [6].

Secondly, intervention methods and drug applications play a crucial role. Keywords like «needle stimulation» and «warm acupuncture» rank high in frequency. Research has confirmed that warm acupuncture and conventional acupuncture are more effective in treating facial paralysis compared to the therapeutic effects of Western medicine for this condition [7][8].

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ADVANCES IN ELECTROACUPUNCTURE TREATMENT OF NEUROGENIC BLADDER AFTER SPINAL CORD INJURY

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Abstract. Neurogenic bladder, often considered incontinence or urinary storage as the main symptom, prolonged and not cured can be combined with other urinary tract diseases. By stimulating the relevant muscles or the nerve fibers and nerve centers that innervate them, the electroacupuncture has a direct effect on the effector or a feedback effect on the nerve pathway, and finally improves the function of urine storage or urination.

Keywords: Spinal cord injury; Neurogenic bladder; Urination dysfunction; electroacupuncture

Neurogenic bladder(NB) refers to the dysfunction of the bladder and urethra caused by damage to the central nervous system or peripheral nerves that control the function of urination. Spinal cord injury(SCI) is one of the most common causes. Electroacupuncture therapy can improve bladder function and prognosis, and improve the quality of life of patients. In recent years, basic and clinical studies have been gradually deepened, and relevant research progress is described as follows.

1. Clinical research progress

1.1 Jiaji electric field therapy

Gao Weibin put forward the theory of «Jiaji electric field therapy», which connects the electroacupuncture wire longitudewise and uses dense waves (50Hz) to form an electromagnetic field to promote the regeneration of nerve fibers .According to the different manifestations of SCI, acupoints were selected: frequency of urination, incontinence to take Shenshu and Huiyang; Dysuria and urinary retention to take Zhongliao, Ciliao, Zhongji, Qugu, Guilai and Qichong [1].

1.2 Shu-Mu matching point method

Qian Baoyan [2] found that electroacupuncture Shu-Mu matching point treatment could improve patients' urination ability. Electroacupuncture stimulated pelvic tissues and organs or innervated nerve fibers and nerve centers, thus producing direct effects on effectors or feedback effects on nerve pathways,improving urine storage or urination function. At the same time, electroacupuncture can improve urine flow dynamics, reduce bladder pressure and enhance bladder compliance.

1.3 Yin-Yang combination therapy

Gao Jiaojiao [3] adopted the «Yin-Yang combination» therapy, electroacupuncture and moxibustion methods were used to warm the bladder. Electroacupuncture therapy, its current acts on tissue and the warm effect generated by moxibustion can better penetrate into the skin and muscle. The combination of the two can effectively improve the urination function.

2. Mechanism research progress

2.1 Promote the proliferation of endogenous neural stem cells in spinal cord

Deng Yuening [4] found that electroacupuncture Dazhui and Ciliao in the model rat can promote the proliferation and activation of spinal eNSCs by regulating the expression of the downstream target gene Ngn1 and cyclin D1 genes of Wnt/β-catenin signaling pathway. Significantly improved bladder function in rats with detrusor hypertrophy after complete spinal cord transection.

2.2 Improvement of abnormal contraction of detrusor muscle of bladder

Ai Kun[5] found that electric acupuncture Ciliao,

Zhongji and Sanyinjiao can regulate the MLCK phosphorylation level of detrusor muscle through cAMP/ PKA signaling pathway, and improve the uninhibited contraction state of detrusor muscle after superior sacral SCI. At the same time, pituitary-adenylate cyclase activating peptide can also activate PKA through cAMP, promote the relaxation of smooth muscle cells.

2.3 Regulation of neurotransmitter expression

Feng Qifan[6] found that SCI causes a large amount of ATP to be released outside the cell and act on purinergic receptors on the cell surface.To play the role of transmitter, electric acupuncture Ciliao and Huiyang can directly affect the dorsal horn neurons of the spinal cord, affect the release of ATP, lead to changes in the combination of ATP and P2X3 receptors or spinal dorsal horn neurons, and ultimately inhibit excessive bladder activity.

3 Discuss

Urinary incontinence, urinary retention and other bladder dysfunction occur after the spinal cord is damaged. By stimulating the sympathetic nerve, electroacupuncture can reduce the contractility of detrusor muscle and enlarge the bladder capacity. By improving neuromuscular excitability, enhance the function of muscle and improve the urination function. In summary, electroacupuncture can effectively treat NB after SCI and it is worth promoting clinically.

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FIRE NEEDLE COMBINED WITH MINIMALLY INVASIVE THERAPY FOR KNEE OSTEOARTHRITIS

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Abstract. Knee osteoarthritis is an inflammatory joint disease. Both the fire needle and minimally invasive therapy are widely used in treating KOA. However, they both have their drawbacks. A review of the literature in the last five years revealed a new treatment method, the fire needle combined with minimally invasive therapy, which combines the advantages of modern techniques and that of classical acupuncture. This therapy is effective for KOA treatment for fire-needle denervation and fire-needle radiofrequency. It is also a positive exploration of clinical treatment by inheriting and innovating traditional therapies.

Keywords: Knee osteoarthritis, Fire needle, Minimally invasive therapy

Knee osteoarthritis (KOA) is a clinically common chronic inflammatory joint disease. Many elderly patients suffer from pain caused by KOA all year round. A review of a large amount of literature found that the clinical use of the fire needle in treating KOA has good efficacy. However, the fire needle is prone to scarring, and controlling its temperature and depth is tricky. Modern treatments for KOA often use the fire needle combined with other therapies. A review of the literature in the last five years revealed

a new treatment method, the fire needle combined with minimally invasive therapy, which combines the advantages of modern techniques and that of classical acupuncture. Therefore, this therapy is elaborated on and described below.

1. Fire Needle

The fire needle is a traditional acupuncture technique in which the needle tip is red-hot by fire and quickly inserted into an acupuncture point to treat a disease. Fire needle therapy has various effects, such as anti-inflammatory, decreasing swelling, and repairing tissue trauma. Furthermore, it is widely utilized in clinical practice. The effect of fire needle therapy for KOA is better than other therapeutics[1]. Guo et al. [2] observed through musculoskeletal ultrasound, and the objective evaluation indicated that the fire needle had good efficacy.

2. Fire Needle Combined Minimally Invasive Therapy

Minimally invasive therapies are also widely used in the treatment of KOA. However, new combined treatments are also being explored in the clinic due to inconsistent healing and high prices. Radiofrequency ablation (RFA) is a treatment that uses electric current to cause partial tissue necrosis. Fire-needle RFA combines modern radiofrequency technology and «Burnt Needle Robbery», which is an extension and innovation of the function of the fire needle. The body of the needle can precisely control the time and temperature of needling to remove the lesions of meridian nodes and relieve pain without damaging normal tissues. Hou et al. [3] randomly divided 100 KOA patients into a fire needle

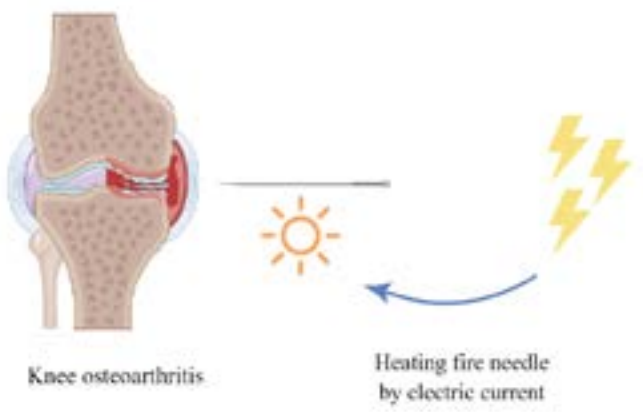

Fig.1. Images of fire-needle RFA for the treatment of KOA

radiofrequency group (fire needle radiofrequency treatment of periarticular meridian node lesions) and a medication group (oral celecoxib capsules) to observe the efficacy of the treatment. The results show that fire needle radiofrequency treatment of KOA is better than oral celecoxib capsules, and it could alleviate the degree of pain and stiffness of the joints, improve the mobility of the joints, and the effective duration was extended.

Denervation therapy relieves pain by cutting knee nerves selectively. Fire-needle denervation therapy is like RFA. Denervation can relieve pain. Besides, the fire needle can improve microcirculation and promote the exudation of inflammatory substances. Yang et al. [4] found fire-needle denervation treatment can effectively improve clinical symptoms and joint function. 3.Discussion

Prevalence of KOA increases yearly. The fire needle combined with minimally invasive therapy combines the advantages of high temperature and a small incision of classical fire needle therapy with the characteristic of modern minimally invasive technology to cut off nerves and ablate lesions. It is also a positive exploration of clinical treatment by inheriting and innovating traditional therapies.

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RESEARCH PROGRESS OF ACUPUNCTURE TREATMENT OF INSOMNIA BASED ON RS-FMRI

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Abstract. Acupuncture has been widely used in the clinical treatment of insomnia, but its mechanism has not yet been fully elaborated and clarified.The application of rs-fMRI technology can study the brain response areas of acupuncture for insomnia from an imaging perspective, and then the central mechanism is dissected.The main purpose of this study was to illustrate the application of rs-fMRI in the treatment of primary insomnia by acupuncture and its effect on central brain effects.

Keywords: Acupuncture; Insomnia; Resting-state FunctionalMRI; Neuroimaging; Research Progress

Insomnia refers to the subjective experience that the patient is not satisfied with the duration and quality of sleep, and its clinical manifestations include difficulty in falling asleep, difficulty in maintaining sleep or easy to wake up at night, early awakening in the morning and other sleep disorders, as well as daytime dysfunction due to sleep deprivation.In recent years, the incidence of insomnia has been on a general rise worldwide.In China, acupuncture has been widely used in the clinical treatment of sleep-related disorders. The pathogenesis of insomnia is still being explored, and the development of modern neuroimaging techniques such as rs-fMRI provides new avenues for further study of central functional changes in acupuncture for insomnia.

1.1 Analysis methods commonly used in rs-fMRI technology and advances in rs-fMRI techniques in insomnia.

Currently, rs-fMRI analysis methods mainly include regional studies and integration studies. Regional studies focus on exploring the neurological changes in local brain regions, mainly including regional homogeneity (ReHo) and Amplitude of Low Frequency Fluctuation (ALFF) [1]; functional integration is to explore the interconnections of various brain regions in neurophysiological activities, including effective connectivity (EC) and functional connectivity (FC). rs-fMRI has been widely used in studies in the field of sleep, in which most of them focus on the dysfunction of brain regions, altered functional connectivity between brain compartments, and functional changes in related networks such as Default Mode Network (DMN), Cognitive Control Network (CCN), and Salience Network (SN) [2].

1.2 rs-fMRI study of acupuncture in the treatment of insomnia.

rs-fMRI has been widely used in the study of the central mechanism of acupuncture in the treatment of insomnia-related diseases.He [3] observed the brain effect mechanism of auricular electroacupuncture in the treatment of daytime sleepiness in patients with insomnia, and found that the ESS score was significantly reduced after acupuncture, and the ALFF of the superior bifrontal gyrus, right middle frontal gyrus, right dorsal anterior cingulate gyrus, the fALFF of the inferior biparietal gyrus, superior bicollinear gyrus, and right angular gyrus, and the ReHo of the superior bifrontal gyrus and the right auxiliary motor area, and the right dorsal anterior and middle cingulate gyrus were positively correlated to the improvement of ESS, and we hypothesized that the auricular electroacupuncture is used to improve the symptom of daytime sleepiness through modulating the neurologic functional activity of the brain areas of the CCN and the DMN.NIE [4]based on FC analysis method found that insomnia patients had a medial prefrontal lobe with the right medial temporal lobe, left medial temporal lobe and left inferior parietal lobe, the researchers concluded that insomnia patients' emotional, memory, and cognitive deterioration is rooted the abnormal connectivity between these brain regions. In summary, the central mechanism of acupuncture for the treatment of insomnia may mainly be realized due to the regulation of the connections and functions of DMN, CNN and other brain networks, and the cumulative effects of acupoint pairing and acupuncture are significant for the treatment of insomnia.

Discussion

The central mechanism of acupuncture treatment for Insomnia may be to modulate the abnormal brain functional network connections of sleep, cognition, memory, and executive-related brain regions such as cognitive network and default network, so that the abnormal brain functional network connections and functional activities of DMN, CCN and other related brain regions of the brain are enhanced. This enriches the theoretical basis of acupuncture treatment of insomnia and further proves the scientific validity of acupuncture treatment of insomnia with the help of neural network and brain area connectivity status.

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REVIEW OF TRADITIONAL CHINESE MEDICINE FOR RESPIRATORY SYNCYTIAL VIRUS PNEUMONIA

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Abstract. Respiratory syncytial virus pneumonia (RSVP) in children is common in clinical practice. It affects the health of children and also brings physical and mental burden to their families, and can even induce complications such as pediatric cardiopulmonary failure in severe cases. Traditional Chinese medicine has definitive efficacy.

Keywords: syncytial virus pneumonia, traditional Chinese medicine, review

Background

Children's respiratory syncytial virus pneumonia is one of the most common types of viral pneumonia in children[1]. At present, there is no vaccine and special treatment in western medicine, and the treatment method is mainly symptomatic supportive therapy. While Chinese medicine treatment is based on the principle of clearing away heat, dispersing wind, and detoxification. The different Chinese medicinal preparations are widely used in the clinic. Currently, there are many literatures showing that traditional Chinese medicine on treating of RSVP has better efficacy.

Objective

The purpose of this paper is to provide researchers with better treatments of RSVP and provide reference for further research.

Methods

In this paper, we screened the high-quality literature in the past 5 years and reviewed traditional Chinese medicine on treating of RSVP.

Results and discussion

Ganciclovir injection can achieve broad-spectrum antiviral effect. Zhang et al. [2] randomly divided 60 children with RSVP into the control group and the study group. The children in the control group were treated with ganciclovir injection, while the children in the study group was treatd with Reduning injection combined with ganciclovir injection. Then, the study group was found to be better than the control group in terms of the time needed to alleviate the symptoms and the reduction of a number of serum indexes.

Recombinant human interferon α1b injection is a broad-spectrum antiviral drug with clear efficacy in the treatment of pediatric RSVP. Fan et al. [3] found that recombinant human interferon α1b injection nebulized inhalation combined with Reduning injection was more effective in treating RSVP by comparing recombinant human interferon α1b injection nebulized inhalation and nebulized inhalation combined with traditional Chinese medicine. A large number of literatures [4,5] show that recombinant human interferon α1b nebulized inhalation therapy combined with pediatric Xiaoer-feire-kechuan oral solution in the treatment of children with RSVP has a definite efficacy, which can help to control the symptoms, improve the immune function and with fewer side effects.

Inhaled budesonide relieves bronchospasm while suppressing respiratory inflammation. Qiu et al. [6] randomized the patients into groups. The control group was treated with symptomatic supportive therapy and budesonide suspension nebulized inhalation, while the observation group was treated with Xiaoer-feire-kechuan oral solution based on the control group. The results showed that the efficacy of Xiaoer-feire-kechuan oral solution combined with budesonide nebulized inhalation in the treatment of RSVP in children is remarkable.

Conclusion

RSVP in children is a common type of viral pneumonia in children. A large number of literatures have proved that traditional Chinese medicine is effective and safe. Clinical studies have shown that external treatments such as Chinese medicine compresses have a good auxiliary effect in the

treatment of RSVP, which is expected to become a new direction for the research of RSVP treatment in children in the future.

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A NEW TREATMENT FOR MOTOR REHABILITATION IN STROKE: FLEXOR AND EXTENSOR ALTERNATIVE LOW-FREQUENCY ELECTRICAL STIMULATION

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Abstract. Stroke patients are mostly accompanied by limb dysfunction, which brings serious impact on their daily life. Flexor and extensor alternative low-frequency electrical stimulation therapy was founded by Prof. Wang Dongyan, which has been widely used in the rehabilitation process of stroke patients and achieved good results. This paper will review the scope of use of this therapy and provide a new therapeutic strategy for stroke rehabilitation.

Keywords: Flexor and extensor alternative low-frequency electrical stimulation, Stroke, rehabilitation, New treatment, Review

Objective

To provide a new rehabilitation treatment for stroke patients and to accelerate their recovery process.

Materials and methods

In this article, we review the current status of the Flexor and extensor alternative low-frequency electrical stimulation therapy in recent years, and then summarize and analyze the clinical advantages and application scope of this therapy.

Results and discussion

Stroke is characterized by high morbidity, mortality and disability. Stroke patients are mostly accompanied by limb dysfunction. Upper limb dysfunction resulting in the inability to perform coordinated and independent executive functions of the arm, hand, and fingers, as well as lower limb dysfunction resulting in difficulty in walking, or even falling, have brought about a serious impact on the daily life of the patients.

Flexor and extensor alternative low-frequency electrical stimulation therapy perfectly combines the traditional acupuncture technique with modern low-frequency electrical stimulation technology, which has the advantages of non-invasive, painless and easy to operate, and adopts the stimulation method of transcutaneous delivery of electricity to provide greater intensity of stimulation compared with electro-acupuncture, and it has significant therapeutic effects in increasing muscle strength, relieving muscle spasm, and improving the

mobility of affected joints, etc. It is widely used in the rehabilitation process of stroke patients, and is also widely used in the rehabilitation process of stroke patients. It is widely used in the rehabilitation process of stroke patients.

The Flexor and extensor alternative low-frequency electrical stimulation therapy was founded by Prof. Wang Dongyan [1] and has been explored by the group for more than 10 years in order to apply the therapy to various processes of stroke rehabilitation. For the exploration of the upper limb, Han Wei [2] and Zhang Rui [3] explored the delayed phase rehabilitation and spasticity phase rehabilitation of stroke patients, respectively, and the results showed that the therapy can significantly increase muscle strength, slow down the occurrence of spasticity, and promote the positive development of rehabilitation. Clinical studies demonstrated the significant efficacy of Flexor and extensor alternative low-frequency electrical stimulation for fine motor rehabilitation of the wrist and fingers after stroke [4,5]. Related studies have also involved rehabilitation of the ankle and walking ability. It is worth mentioning that this group also applied fMRI to investigate the application of this therapy to the central functions of normal people and stroke patients. It lays a reliable theoretical foundation for this therapy.

Flexor and extensor alternative low-frequency electrical stimulation therapy can be effectively applied to the rehabilitation of upper limb function, the rehabilitation of hand function fine motor and the rehabilitation of lower limb motor function in stroke patients. The therapeutic effect is remarkable, the operation is simple, and it is worth popularizing, providing a new direction for the treatment of stroke motor rehabilitation.

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PROGRESS OF CLINICAL RESEARCH ON THE TREATMENT OF PSEUDOBULBAR PARALYSIS AFTER STROKE BY NECK ACUPUNCTURE

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Abstract. Pseudobulbar paralysis is a common complication of clinical cerebrovascular disease, and its incidence has increased significantly in recent years. Acupuncture is one of the most important methods for the treatment of this disease, and the neck acupuncture therapy has achieved remarkable clinical efficacy in the clinical treatment of this disease. Therefore, we reviewed the common methods of acupuncture in the treatment of pseudobulbar paralysis in recent years, aiming to provide clinical reference for the treatment of pseudobulbar paralysis by acupuncture.

Keywords: Pseudobulbar paralysis, Acupuncture, Stroke, Dysphagia, Dysarthria

Pseudobulbar paralysis is a group of conditions in which paralysis of the tongue and pharyngeal muscles occurs due to lesions damaging bilateral upper motor neurons [1], resulting in the loss of superior innervation of the motor nuclei in the medulla oblongata. Its symptoms mainly include dysphagia, choking on drinking water, and dysarthria.

Some studies have shown that stroke patients have a higher probability of suffering from Pseudobulbar paralysis dysphagia [2]. Since modern medicine has no systematic treatment method for it, through looking up a lot of literature, we found that item needle therapy has achieved good efficacy in its treatment. Therefore, I will introduce the common clinical neck acupuncture therapy.

1. «Tong Guan Li Qiao» acupuncture method

The «Tong Guan Li Qiao» acupuncture method is based on the «Xing Nao kai Qiao» acupuncture

method founded by Academician Shi Xue Min, which is proposed for post-stroke swallowing disorders. According to academician Shi, the basic therapeutic principle for post-stroke pseudobulbar paralysis is to «regulate the vitality to direct the qi, nourish the three yin and benefit the whole body «. Du Cuiyun et al [3] randomly divided 90 patients into two groups, each with 45 cases. The treatment group used «Tong Guan Li Qiao» acupuncture method, and the control group used traditional acupuncture method. Results: The therapeutic effect of «Tong Guan Li Qiao» acupuncture method in treating pseudobulbar paralysis was better than that of traditional acupuncture method.

2. Gao's neck acupuncture method

Prof. Gao Weibin applies the theory of 'branch and root' to the treatment of pseudobulbar paralysis. The first step in treating this disease is to improve the blood circulation of the brain tissues in the lesion area and restore the damaged nerve function, which is the 'root' of the disease; then re-establish the swallowing reflex and phonological function, which is the 'branch' of the disease. Chu Jiamei et al [4] randomly divided 100 patients into two groups, each group of 50 cases. The control group was treated with conventional acupuncture, and the treatment group was treated with «Gao's neck needle». Results: The therapeutic efficacy of «Gao's neck needle» in the treatment of pseudo medullary paralysis was better than that of traditional acupuncture.

3. Yu's neck acupuncture method

The «Yu's neck needle» is a set of therapeutic methods summarized by Prof. Yu Zhishun after years of clinical research. According to the anatomical basis of acupuncture points, acupuncture can promote the repair of nerve function and hematoma absorption, and promote the establishment of cerebrovascular collateral circulation to play a compensatory function [5]. Sun Yuanzheng et al. randomly divided 60 patients into two groups, 30 cases in each group. The treatment group was treated with «Yu's neck needle», and the control group was treated with conventional acupuncture [6]. Results: The treatment of pseudobulbar paralysis by 'Yu's neck needle' has better clinical efficacy.

Results and Discussion

As the incidence of cerebrovascular disease continues to rise, pseudobulbar paralysis as its important sequelae, seriously affecting the physical and mental health of patients. Effective treatment of pseudobulbar paralysis is of great clinical significance to the prognosis of patients. A large number of clinical studies have proved that traditional Chinese medicine (TCM) has remarkable efficacy in the treatment of this disease. In particular, acupuncture treatment has been widely used in clinical practice. However, at present, the clinical research of TCM in pseudobulbar paralysis is not deep enough, resulting in weak persuasion. Despite the remarkable efficacy of Chinese medicine, more and more systematic data are needed to support the development of Chinese medicine in the international arena, which requires the unremitting efforts of every Chinese medicine practitioner.

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REPEATED TRANSCRANIAL ACUPUNCTURE TREATMENT OF MIGRAINE WITHOUT AURA: A CASE REPORT

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Abstract. Migraine without aura (MWoA) is a serious chronic neurological disorder. The clinical outcomes of applying currently available pharmacological therapy are often unsatisfactory. Here, we report a case that an innovative acupuncture method, called repeated transcranial acupuncture, can be more beneficial for patients with MWoA. In this case, with a total of six session of acupuncture therapies, the patient's clinical symptoms and quality of life were significantly improved. During the next month of follow-up, there were no clinical symptoms recurrences.

Keywords: Acupuncture, Migraine without aura, Manual manipulation, Case report

Case presentation

On May 17, 2023, a 30-year-old man visited our acupuncture clinic because of repeatedly headache on his right side that persisted for two weeks. Due to lack of sleep caused on by hectic work, the patient started to get right-sided throbbing headaches two weeks ago that would last for around three hours each and occur 2-4 times each day. The patient take ibuprofen or sumatriptan orally as previously, but sadly, the headache symptom was not eased, and it was even accompanied with photophobia and fear of sound. We performed an exhaustive physical examination on the patient and discovered no particularly positive symptoms. Therefore, we diagnosed him with MWoA based on his present conditions and past history.

Acupuncture treatment

The acupoint prescriptions included Baihui (GV20), Ningshen (location: on the midline of the forehead, 2cm straight up from the eyebrow), Sizhukong (SJ23), Shuaigu (GB8), Touwei (ST8), Fengchi (GB20), and Waiguan (SJ5), only the right/affected side acupoints were selected. After inserted the needle, the doctor then held the needle handle with his thumb and index finger and rotated the needle body in an alternating clockwise and counterclockwise manner. The twist frequency was 200 times per minute, and the angle was approximately 180°. After Deqi sensation, each acupuncture point on the head received this specific twisting manipulation for about three minutes. Following the completion of all manipulation, electroacupuncture (EA) treatment was applied three acupoints groups, one group each for GV20 and Ningshen, SJ23 and ST8, and GB8 and GB20. The EA waveform was continuous wave, the frequency is 2Hz and the strength is 1.5mA, through retained needles was applied for 30 min. Then, following the same manipulation to repeat the twisting needle once. This innovative procedure is called repeated transcranial acupuncture.

Clinical outcome

With a total of six acupuncture sessions, the patient has not taken any medications, experiences migraines just once per day or not at all, their VAS score was only 1-2 and attacks can be relieved within 20 minutes. Meanwhile, the patient can sleep properly and participate in work and social interaction. Thus, the acupuncture therapy was terminated after our evaluation. There were no adverse events occurred throughout the whole therapy period. We followed up every two weeks, and no clinical symptoms recurred during the two visits.

Discussion

Migraine can be regarded as the consequence of multisensory interactions between pain emotional modulation and pain cognitive processing [1]. The traditional Chinese medicine theory believes that GV20 can effectively regulate emotion and cognition. Additionally, Ningshen is located in the body surface projection area of the prefrontal cortex of the brain and belongs to the Governor Meridian. From the theory of traditional Chinese medicine and Western medicine anatomy, Ningshen can regulate emotions, feelings and other thinking activities. Studies have shown that acupuncture analgesia can benefit patients by activating the function of the prefrontal cortex, which is the higher emotional center of humans, thereby regulating pain cognition and pain feedback [2]. Therefore, we chose these two acupuncture points, which are uncommon in the treatment of MWoA with acupuncture, to modulate algesthesia feedback and relieve symptoms.

The innovation of this case is that we enhance stimulus of the acupuncture by specific twisting manipulation and maintain the stimulation level with EA. The amount of stimulation is the prerequisite to obtain the curative effect [3], yet the acupuncturist usually ignores the needle manipulation. Repeated transcranial acupuncture significantly increases the amount of acupuncture stimulation through repeated manipulation, and finally improved the curative effect. This case attempts to give a fresh perspective on the irreplaceable and indispensable special role of stimulus amount in acupuncture treatment. Furthermore, EA can maintain uniform

and continuous stimulation of the needle, promoting blood circulation and reducing vasospasm, and also plays a role in improving the efficacy of acupuncture in the treatment of MWoA [4].

In this case, we used fewer acupoints to benefit the patient in the short term. Meanwhile, this acupuncture method substitutes medications and nearly without side effects, which significantly increases patient compliance. What's more, this acupuncture technique is also convenient and simple, which encourages other doctors to apply it on patients with the same condition.

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RESEARCH PROGRESS ON APPLICATION OF NEAR-INFRARED SPECTROSCOPY IN CHRONIC FATIGUE DISEASES

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Abstract. With the gradual increase of social pressure, fatigue diseases represented by chronic fatigue syndrome have been widely concerned. However, due to the subjectivity of scale diagnosis and the high cost of functional magnetic resonance technology, a simpler and cheaper objective diagnosis method is urgently needed for fatigue-related diseases. Near-infrared spectroscopy (NIRS) is a non-invasive, convenient technology, which can continuously measure the hemodynamic changes of human tissue microcirculation and the oxygen-carrying capacity of hemoglobin in blood. Its characteristics of no radiation and no damage are very suitable for the diagnosis of clinical fatigue. In this paper, the application research progress of NIRS in fatigue-related diseases such as chronic fatigue syndrome in recent years is systematically reviewed in order to provide reference for its clinical diagnosis.

Keywords: near infrared spectroscopy, fatigue, chronic fatigue syndrome, review, diagnosis

Chronic fatigue syndrome (CFS) is a disease characterized by repeated severe fatigue of unknown causes, which lasts for more than 6 months and is often accompanied by anxiety, depression, pain, sleep disorder, cognitive impairment and other symptoms. NIRS is a non-invasive neural activity imaging technology based on optical principle, which can assist in the diagnosis and diagnosis of diseases by detecting the changes of oxygenation, and has been widely used in the diagnosis of many central nervous system diseases such as Parkinson's disease. NIRS also plays an important role in the diagnosis of fatigue-related diseases such as chronic fatigue syndrome, which is another reliable evidence for the diagnosis of fatigue diseases in clinic.

Objective

Based on the clinical study of fatigue-related diseases such as CFS by NIRS, the changes of muscle and hemodynamics of patients with fatigue symptoms were systematically summarized, so as to provide reference for the accurate diagnosis of fatigue-related diseases in the future.

Materials and methods

Seven databases, including China Journal full-text Database (CNKI), Wanfang academic Journal full-text Database (Wan fang), VIP Chinese Sci-tech Journals Database (VIP), China Biomedical Literature Database (Sino Med), PubMed, Cochrane Library and Embase database, were searched with the keywords of « near-infrared spectroscopy «, «AND», « fatigue «, «OR», « chronic fatigue

syndrome « and corresponding Chinese. The search time limit was before July 2023. Included articles were summarized and analyzed.

Results and discussion

It is pointed out that NIRS has great potential in the diagnosis of chronic fatigue syndrome, and it can also be used for disease monitoring and evaluation. Compared with healthy subjects, the ratio of oxygenated hemoglobin to deoxyhemoglobin in the thumb of CFS patients is increased [3]. Muscle fatigue and pain are also important accompanying symptoms of CFS. Early NIRS studies proved that blood flow restriction caused by high intramuscular mechanical pressure is the key factor of muscle fatigue, and then reports of cognitive fatigue and mental fatigue pointed out that the hemodynamic response in the prefrontal cortex and parietal cortex increased, which provided a more objective way for clinical diagnosis of fatigue symptoms.

With the rising incidence of clinical fatigue diseases and the deeper understanding of fatigue diseases, it is increasingly important to seek objective, convenient and economical diagnosis methods. NIRS is an important means to assist in the diagnosis and diagnosis of diseases due to the change of organism oxygenation, which is of great significance in the diagnosis, monitoring and evaluation of CFS. However, there are some problems in the application of NIRS in fatigue-related diseases such as CFS, such as the lack of case reduction spectrum database data and the instability of metrological analysis model, which need further research and improvement by future researchers.

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COMPARISON OF INNOVATIVE DIAGNOSIS AND TREATMENT METHODS IN RUSSIAN AND CHINESE TRADITIONAL MEDICINE

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Abstract. Traditional medicine has a long history in Russia and China, and has gradually become a research hotspot in the medical field in recent years.This paper aims to compare Russian and Chinese innovations in traditional medicine, including methods of diagnosis and treatment.By exploring the uniqueness, innovative techniques and clinical applications of traditional medicine in both countries, we hope to gain a deeper understanding of the potential of these ancient medical traditions in modern medicine.

Keywords: traditional medicine, diagnosis, treatment methods, innovation

Objective

To compare Russian and Chinese innovations in traditional medicine, including diagnosis and treatment methods.

Methods

The uniqueness, innovative technology and clinical application of traditional medicine in the two countries were discussed.

Russian traditional medicine can be divided into two categories, one is the local traditional medicine treatment methods; The other is the imported traditional medical treatment methods, such as traditional Chinese acupuncture, traditional Chinese medicine and Tibetan medicine [1].Russian traditional medicine has a rich tradition of folk and herbal remedies. A large number of natural elements, such as mineral springs and healing mud, are used in the treatment of various diseases. Traditional Russian remedies often include cupping therapy, sauna therapy, and herbal soups. In recent years,

researchers in Russia have been exploring and validating the pharmacological effects of traditional herbs. In addition, they strive to combine traditional therapies such as acupuncture and massage with modern medical technology to create new treatment methods. Traditional Chinese medicine is a comprehensive medical system, including Chinese herbal medicine, acupuncture, moxibustion and massage. It emphasizes the balance of Yin and Yang in the body. Traditional Chinese Medicine has achieved remarkable results in the treatment of various chronic and acute diseases and is recognized worldwide. There is ongoing research in China aimed at modernizing TCM diagnosis by integrating advanced imaging and diagnostic techniques. In addition, extensive research has been conducted to identify the active ingredients in Chinese herbs and to develop standardized herbal formulations to achieve consistent therapeutic results. Although the innovative results of traditional medicine show great potential, there are still some challenges. Standardised herbal formulations, scientific validation and regulatory issues are key obstacles. However, the potential of traditional medicine to provide complementary and personalized medicine also offers significant opportunities for further development.

Results and Discussion: Innovations in Russian and Chinese traditional medicine are driving the application of these ancient medical traditions in modern medicine. Both countries are exploring ways to combine traditional medicine with modern medicine to provide more comprehensive and effective medical services. However, standardization, scientific validation and regulatory issues remain challenges that need to be addressed. In the future, strengthening research cooperation and promotion will help traditional medicine gain wider recognition and application around the world. It is necessary to establish an exclusive innovation method system based on the unique attributes, professional process and practical experience of TCM products, and accelerate the development of new scientific thinking, methods, tools and technologies to expand the database of TCM innovation methods, so as to make TCM innovation more systematic and efficient[2].

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A REVIEW ON THE TREATMENT OF TYPE 2 DIABETES MELLITUS BY SHENLING BAIZHU POWDER COMBINED WITH METFORMIN

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Abstract. In recent years, ShenlingBaizhu Powder has been widely used to lower blood sugar. Metformin, as a common drug for hypoglycemia, has many side effects in the course of administration. Clinical studies have found that the combination treatment of metformin and metformin can achieve more satisfactory hypoglycemic effects.

Keywords: Addition and subtraction of Shenling Baizhu powder; Metformin; Type 2 diabetes; Gastrointestinal adverse reactions

Objective

To investigate the clinical efficacy of Shenlingbaizhu powder combined with metformin in the treatment of type 2 diabetes, and to provide direction and evidence for future use.

Matetiais and Methods

According to the keywords in the knowledge network, Wanfang, Weipu database search.

Conclusion

ShenlingBaizhu powder combined with metformin can effectively treat type 2 diabetes mellitus.

Type 2 diabetes is a metabolic disorder characterized by hyperglycemia and insulin resistance. According to traditional Chinese medicine, the pathogenesis of type 2 diabetes is related to spleen deficiency and excessive dampness. A large number of studies have confirmed that Shenling Baizhu powder combined with metformin can effectively treat type 2 diabetes. The combined use of Chinese and Western

medicine has complementary advantages.

Shenling Baizhu powder combined with metformin can treat type 2 diabetes by regulating gastrointestinal hormone levels. Ma Ningning [1] took the syndrome of spleen deficiency and dampness as the dialectical criterion, and selected 93 obese type 2 diabetes patients who met the criteria as the research objects, randomly divided them into two groups. By comparing various observation indexes of the two groups, it was found that Shenlingbaizhu Powder could reduce blood sugar and improve islet function by regulating indexes such as fat hormone and gastrointestinal hormone. Feng Shaolan [2] added Radix achyrania, Radix paeoniae and salvia miltiorrhiza into the original medicine of Shenling Baizhu Powder. The three kinds of medicines can improve circulation, promote blood circulation and remove blood stasis, dilate blood vessels, accelerate blood flow, etc., and reduce blood glucose in patients by reducing blood viscosity.

Shenling Baizhu Powder combined with metformin can treat type 2 diabetes by regulating intestinal flora. Probiotics strengthen the host's gut barrier and regulate the immune system, and thus may provide bacterial targets for the treatment of type 2 diabetes by reestablishing homeostasis of the gut microbiome. Jiang Haiyan [3] believed that the «spleen» of traditional Chinese medicine might be related to the imbalance of intestinal flora, so he took intestinal flora as a potential target for the treatment of diabetes. Research shows that the hemoglobin level of obese patients with type 2 diabetes was negatively correlated with the DNA quantity of bifidobacterium and Bacteroides in stool, and positively correlated with the DNA quantity of enterococcus. The therapeutic effect of Shenlingbaizhu powder combined with metformin was better than that of Western medicine alone.

Resurts and discussin

Summary, Shenlingbaizhu powder combined with metformin can effectively treat spleen deficiency and dampness syndrome of type 2 diabetes, and can also improve the blood sugar level of type 2 diabetes by regulating intestinal flora and reducing inflammatory factors, thus delaying the progression of type 2 diabetes and improving the quality of life of patients. In addition, Shenlingbaizhu powder is also suitable for diabetic gastroparesis and some diabetic nephropathy, but there are few studies on its treatment of type 2 diabetes-related complications, so it can be further studied to provide evidence for clinical use.

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TREATMENT OF QI DEFICIENCY AND BLOOD STASIS AFTER STROKE BASED ON TCM TONGUE AND PULSE COMBINED BUYANG HUANWU DECOCTION

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Abstract. Tongue diagnosis and pulse diagnosis are closely related to the viscera of the human body, which is an important content of the four TCM diagnosis and an important basis for TCM to engage in syndrome differentiation and treatment.Buyang Huawu Decoction is a classic prescription for treating qi deficiency and blood stasis caused by stroke. It has the effect of invigorating Qi, helping Yang and removing blood stasis.

Keywords: Traditional Chinese medicine tongue and pulse;Buyang also five soup, after stroke

Objective

To treat the syndrome of Qi deficiency and blood stasis after apoplexy based on TCM tongue and pulse combined Buyang Huanwu Decoction

Stroke, also known as «cerebrovascular accident» and «stroke» in modern medicine, its clinical manifestations are sudden fainting, unconsciousness, limb numbness, hemiplegia, tongue and so on.The disease has the characteristics of high morbidity, high mortality and high disability rate.Approximately 5 million people worldwide die from stroke each year, and the incidence of stroke

increases with age .Modern medicine has reduced the death rate of stroke patients, but there are no specific drugs for the treatment after stroke, and traditional Chinese medicine is widely used in the clinical treatment of this disease with its unique advantages.Traditional Chinese medicine believes that after stroke, the main deficiency is Qi deficiency and Yin deficiency, and the standard deficiency is blood stasis and phlegm dampness.Research on TCM syndrome shows that Qi deficiency and blood stasis syndrome is the main TCM syndrome type of this disease [2].Buyang Huanwu Decoction is a classic prescription to treat the syndrome of qi deficiency and blood stasis of apoplexy.Chinese traditional medicine attaches great importance to the wholeness of the human body, thinking that the human body is an organic whole, and the various organs that constitute the human body are inseparable in structure.Coordinate and complement each other in function;They interact pathologically.

Because the tongue passes through the zang-fu organs, the tongue quality and tongue coating reflect the changes of Qi, blood and body fluid of the zang-fu organs at any time, it can be seen that the tongue image is the reflection of the essence of the disease;The formation of pulse image is closely related to the fluctuation of the heart, the circulation of the pulse and the profit and loss of Qi and blood. The change of pulse response is the clear evidence of the change of Qi and blood Yin and Yang of Zang-fu organs.The changes of tongue and pulse are not dependent on people's subjective will, and the reflected medical information is objective and reliable, in line with the authenticity of medicine [3].

On the basis of TCM tongue and pulse diagnosis and treatment, combined with Buyang Huawu decoction, a classic prescription for treating Qi deficiency and blood stasis after stroke, it acts on Qi deficiency and blood stasis after stroke

Discussion and analysis

Since patients with different physique may have different sequelae after stroke, we need to minimize mistakes in diagnosis and treatment. Based on the fact that TCM tongue and pulse can timely and accurately reflect the essence and phenomenon of the disease, combined Buyang Huanwu Decoction can treat Qi deficiency and blood stasis after stroke to maximize the therapeutic effect.

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OVERVIEW OF THE CLINICAL APPLICATION OF YUYE DECOCTION IN THE TREATMENT OF TYPE 2 DIABETES AND ITS COMPLICATIONS

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Abstract. Yuye Decoction is recorded in the < Intergrating Chinese And Western Medicine> and is a famous prescription used by Zhang Xichun in the Qing Dynasty to treat diabetes. After a long period of systematic application of modern medicine, it has been found that Yuye Decoction has achieved great clinical results in treating type 2 diabetes and its complications, whether alone or in combination with western medicine. This article summarizes and analyzes the relevant literature research on the application of Yuye Decoction in the treatment of type 2 diabetes and its complications on CNKI, with a view to further deepening and extensive application of Yuye Decoction in clinical practice in the future.

Keywords: Yuye Decoction;type 2 diabetes;diabetic complication

Zhang Xichun (1860-1933), also known as Shoufu, is a famous physician in the history of modern Chinese medicine. He believes that due to qi deficiency, it is unable to disperse body fluids and cannot metabolize excess water into the body. In summary, qi deficiency and depression are one of the important pathogenesis leading to the occurrence of diabetes. By combining traditional Chinese medicine's understanding of the spleen and stomach in the middle energizer with modern anatomical experience, Zhang Xichun proposed for the first time the concept of «starting from

the middle energizer and ending at the top and bottom», believing that the cause of traditional Chinese medicine's thirst suppression originates from the middle energizer, and the disease of the middle energizer affects spleen disease[1].

Based on the above theory, Zhang Xichun created a commonly used formula for treating diabetes - Yuye Decoction. The original prescription is composed of seven herbs: raw yam, raw astragalus, anemarrhena asphodeloides, raw chicken Neijin (pounded), kudzu root, Schisandra chinensis, and trichosanthin.

Diabetes is a group of metabolic diseases characterized by chronic hyperglycemia caused by multiple causes, which is caused by insulin secretion and/or utilization defects.In China, type 2 diabetes (T2DM) patients account for the vast majority of patients with diabetes.The main clinical manifestations are polydipsia, polyuria, overeating, and weight loss.

1 Treatment of type 2 diabetes

Oral Metformin and other hypoglycemic drugs are the main means of daily blood sugar control in the treatment of type 2 diabetes.Under the influence of multiple factors, patients often experience poor blood sugar control.The extensive use of insulin is not suitable for long-term hypoglycemic regimens.Yao Shusheng has observed 90 T2DM patients with poor blood glucose control in groups, and confirmed that the Glucose test FBG and 2hPBG in the treatment group of Yuye Decoction plus conventional hypoglycemic therapy were significantly lower than those in the control group, and the blood glucose fluctuation was more stable. At the same time, the observation group's treatment significantly improved pancreatic islet function in patients with poor blood sugar control, and its FINS and HOMA-β.It is significantly higher than the control group, and HOMA-IR is lower than the control group [2].

2 Treatment of type 2 Complications of diabetes

2.1 Treatment of diabetes nephropathy

Diabetes nephropathy (DN) is a disease characterized by Proteinuria and decreased glomerular filtration rate caused by diabetes.Hu Xia adopted the animal experimental research method of replicating DN rat models and treating them with Yuye Decoction, and found that the Yuye Decoction group was a significant improvement in the pathological manifestations of the kidney tissue, indicating that Yuye Decoction has minimal renal damage and good safety. The expression of p38MAPK and Caspase-3mRNA in the renal tissue of DN rats in each treatment group was significantly reduced, and the expression of SIRT1 and PGC-1 in the renal tissue was significantly reduced α The protein expression was significantly increased, with the high-dose Yuye Decoction group performing significantly better than the Erjia Shuanggu group. It suggests that Yuye Decoction can alleviate kidney damage by reducing inflammatory reactions and regulating oxidative stress reactions[3].

Results and discussion

To sum up, the clinical efficacy of Yuye Decoction has been fully verified in many aspects of treating diabetes and its complications, and most of them are consistent with modern pharmacology. If there is more detailed and clear progress in the research on the development mechanism of T2DM follow-up disease, the use of Yuye Decoction will have better clinical accuracy or help researchers find better clinical treatment methods.

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RESEARCH PROGRESS IN THE TREATMENT OF FETAL INTRAUTERINE GROWTH RETARDATION WITH TRADITIONAL CHINESE MEDICINE

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Abstract. Intrauterine growth retardation (IUGR) is a common neonatal birth disease, and the incidence of the disease is increasing year by year. Traditional Chinese medicine (TCM) treatment of fetal IUGR gives full play to the characteristics of viscera treatment of traditional Chinese medicine, with significant curative effect, and has good application prospects and research value. Due to its complex pathogenesis, effective treatment is still under exploration. This article reviews the relevant data of traditional Chinese medicine treatment of this disease in recent years and finds that traditional Chinese medicine believes that IUGR is mainly due to congenital and acquired deficiency, qi and blood imbalance, cold blood and cold palace. Therefore, the treatment of this disease can start from this aspect.

Keywords: intrauterine growth retardation; Traditional Chinese medicine ;treatment

Intrauterine growth retardation (IUGR) is defined as fetal weight less than the 10th percentile of predicted fetal weight for the same age or less than 2 standard deviations of its mean due to deviation of fetal potential energy from normal growth patterns in intrauterine growth[1]. In TCM, intrauterine growth retardation in children is classified into the category of «five late and five soft», and the two syndromes often coincide with each other, also known as «fetal blighting not long» and «fetal blighting dryness of pregnancy». Studies have shown that IUGR is a common problem during fetal growth and development, second only to preterm birth. If the diagnosis is not correct, it may increase the risk of perinatal asphyxia, abnormal morbidity and death. The negative effects of IUGR are not only manifested in the perinatal period, but also may cause metabolic syndrome in later life and increase the risk of hyperlipidemia, cardiovascular disease and coronary heart disease in adulthood. This is consistent with the TCM belief that congenital deficiencies lead to acquired increased susceptibility to disease. Therefore, early identification and understanding of its etiology and pathogenesis is of great significance to improve the perinatal fetal prognosis and improve the quality of the population.

Objective

This article discusses the general situation and research progress of traditional Chinese medicine treatment for intrauterine growth retardation in recent years, and provides a comprehensive reference for clinical exploration of more effective treatment methods.

Materials and Methods

A thematic search was conducted in the CNKI database with the key words of DD and TCM treatment to find relevant literature in the past five years.

Results and Discussion

Through the research and analysis of the literature results, it is shown that the traditional Chinese medicine masters mostly use Zangfu treatment in the treatment of this disease. According to the theory of traditional Chinese medicine, IUGR is caused by congenital deficiency of essential qi and acquired deficiency of tonic, which leads to the emptying of the brain medulla and the unknown brain orifics. Studies have shown that Bushen Jianpi recipe (a self-made empirical recipe made from Sijunzi decoction and Shoutai pill) applied to mothers can improve insulin resistance of IUGR offspring mice and activate PI3K/AKT/GLUT pathway in placenta and skeletal muscle [2]. Xiong[3] took 72 pregnant women with IUGR as subjects from 2018 to 2020 and found that the treatment of IUGR with Yishen, spleen, blood and long fetus traditional Chinese medicine decoction was helpful for the growth and development of the fetus and improved the umbilical artery blood flow of the fetus, with significant therapeutic effects. Liu [4] compared the treatment of western medicine with the treatment of traditional Chinese medicine Bushen Yangxue decoction, and analyzed that the fetal uterine height, abdominal circumference and placental weight increased after the treatment of Bushen Yangxue decoction.

In terms of treatment, traditional Chinese medicine decoction is used to nourishthe kidney, strengthen the spleen, nourishthe blood and grow the fetus, follow the theory of TCM, pay attention to the essence of the day, and combine with the pathogenesis of fetal intrauterine growth restriction. Clinical practice has proved that the curative effect is significant, which can accelerate the intrauterine fetal growth rate and reduce the incidence of low birth weight. With the development of TCM, nourishing kidney, invigorating spleen and nourishing, as a traditional Chinese medicine formula, has fewer

toxic and side effects and high safety. It is expected to develop safer and more effective new dosage forms of TCM and more acceptable traditional Chinese medicine treatment methods, so as to give full play to the advantages of TCM.

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MECHANISM OF TCM PREVENTION AND TREATMENT OF MYOCARDIAL ISCHEMIA-REPERFUSION INJURY

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Abstract. There are various mechanisms of myocardial ischemia-reperfusion injury, which are widely associated with calcium ion overload, oxygen free radicals, apoptosis and inflammatory reaction. Therefore, prevention of MIRI can be started from these aspects. Chinese Traditional Chinese medicine believes that MIRI injury belongs to the category of «chest impediment» and «palpitation», and TCM treatment of MIRI has gradually attracted the attention of all walks of life. This article mainly analyzed the application effect of TCM single drug and compound drug in MIRI, and summarized the research progress of TCM prevention and treatment of MIRI.

Keywords: Myocardial ischemia-reperfusion injury, Chinese medicine

As one of the most frequent cardiovascular diseases, the death rate of acute myocardial infarction is increasing year by year. Clinical treatment is mainly based on drug thrombolysis and percutaneous coronary intervention to open the blood vessels and save the dying myocardium. However, while reducing the size of acute myocardial infarction, MIRI caused by the sudden opening of coronary arteries and the recovery of blood flow has become a new difficulty and challenge in the treatment of AMI, so reducing MIRI has become the key to the treatment of AMI. At present, the prevention and treatment of MIRI by traditional Chinese medicine has become a new direction in the treatment of AMI, and traditional Chinese medicine has the advantages of stable curative effect and few side effects.

Objective

To study and summarize the mechanism of TCM treatment on MIRI in recent years.

Materials and methods

TCM prevention and treatment of MIRI during 2020-2023 were searched on CNKI, and relevant experimental reports meeting the requirements were selected for subsequent analysis and summary.

Results and discussion

In recent years, experimental studies have found that 64 kinds of Chinese medicine components have the effect of preventing and treating MIRI, including 18 kinds of flavonoids, 5 kinds of phenols, 23 kinds of glycosides, 4 kinds of sugars, 7 kinds of alkaloids, 3 kinds of terpenes, 2 kinds of organic acids, 1 kind of amino acids, and 1 kind of catechins. The active components of Chinese medicine with preventive and therapeutic effects are mainly concentrated in glycosides, flavonoids and alkaloids. The injury of MIRI to the body is multi-level, multi-link and multifaceted, and the chemical structure, physical and chemical properties of different active ingredients of Chinese medicine are different, and the ways to play the prevention and treatment are different. They play a role in preventing myocardial ischemia reperfusion injury by dilating coronary artery, inhibiting oxidative stress, inhibiting inflammatory response, inhibiting cardiomyocyte apoptosis and autophagy, and enhancing mitochondrial energy metabolism.

It was found that the decoction could inhibit myocardial tissue inflammation, relieve myocardial cell edema, improve mitochondrial function, restore the normal arrangement of myofilaments, and thus

improve the pathological process of MIRI in MIRI model rats. The mechanism may be related to the activation of NRG1/ErbB signaling pathway. Yangxin Tongmai can improve the myocardial injury of MIRI blood stasis syndrome rats, and its mechanism may be related to promoting mitochondrial selective autophagy, reducing the content of superoxide anion, reducing the swelling of mitochondrial membrane, and thus slowing down the apoptosis process of myocardial cells. Supplementing qi and promoting blood circulation has protective effect on myocardial ischemia-reperfusion injury and can significantly promote the recovery of cardiac function, and its mechanism may be related to the improvement of myocardial antioxidant capacity, mitochondrial function and energy metabolism. Qingyingshengmai Decoction can reduce the content of CK and CK-MB in the serum of MIRI rats, reduce the myocardial infarction area of rats, reduce the level of serum IL-2 and increase the level of serum IL-4, so as to alleviate the inflammatory response of MIRI rats. In addition, Qingyingsheng Mai Decoction can reduce the P-JNK protein content in the myocarocytes of MIRI rats, so it can be inferred that Qingyingsheng Mai Decoction may reduce the damage of myocarocytes caused by MIRI inflammation by inhibiting JNK signaling pathway.

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RESEARCH PROGRESS OF EXTRACORPOREAL SHOCK WAVE THERAPY FOR QI-STAGNATION AND BLOOD-STASIS TYPE BONE EROSION

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Abstract. This paper reviewed the research progress of extracorporeal shock wave therapy for Qi-stagnation and blood-stasis type bone erosion. Firstly, the background and purpose of the study are introduced, and then extracorporeal shock wave therapy and its application in the treatment of bone erosion are described in detail. The experimental results of related studies are further analyzed and discussed and explained. Finally, the main conclusions and findings of the study are summarized.

Keywords: Extracorporeal shock wave, qi stagnation and blood stasis

Traditional Chinese medicine believes that femoral head necrosis belongs to the category of «bone erosion», and Qi-stagnation and blood stasis type bone erosion is a type of bone erosion, with complex etiology and obvious symptoms, mainly manifested as intermittent pain in the hip area, which radiates downward and gradually develops into persistent pain, muscle stiffness, limited joint

activity, and seriously affects patients' quality of life [1]. But the traditional treatment is not effective, there are certain side effects and limitations. Extracorporeal shock wave, as a new therapeutic method, has been widely used in the treatment of bone erosion and has achieved certain clinical results.

Objective

The purpose of this article is to review the research progress of extracorporeal shock wave therapy for Qi-stagnation and blood-stasis type bone erosion, and to provide reference for clinical treatment.

Methods

This paper uses the method of literature review to collect and sort out the relevant research literature at home and abroad. The main databases used include PubMed, Medline, etc. Keywords include «extracorporeal shock wave», «qi stagnation and blood stasis», «bone erosion» and so on.

Results and discussion

Through literature review, it was found that extracorporeal shock wave therapy for Qi-stagnation and blood-stasis type bone erosion had achieved certain clinical effects [2]. Extracorporeal shock wave therapy can improve patients' pain symptoms and promote bone tissue repair and regeneration. At the same time, extracorporeal shock wave can also improve blood circulation and reduce the symptoms of qi stagnation and blood stasis. Traditional Chinese medicine believes that this disease is caused by trauma, strain, exogenous toxin and so on. Qi and blood are damaged by exogenous evil, then qi machinery is disordered and blood stasis stops inside; Or because defensive yang is not solid, feel external evil, evil obstructs blood flow, and produce Bi [3]. The syndrome of Qi stagnation and blood stasis is a type of syndrome with more avascular necrosis of the femoral head, so nourishing blood to promote blood circulation and tonifying kidney to strengthen bone should run through the whole process of treatment [4]. Extracorporeal shock wave therapy has shown promising results in the treatment of Qi-stagnation and blood-stasis type bone erosion, with positive effects on pain relief, bone tissue repair, and promoting blood circulation. The therapy's ability to improve blood supply to the femoral head and potentially reverse the progression of avascular necrosis makes it a valuable treatment option for this type of bone erosion. However, further research and clinical trials are needed to fully understand the mechanisms and long-term effectiveness of this therapy. Overall, this review provides valuable insights for clinicians and researchers seeking effective treatments for Qi-stagnation and blood-stasis type bone erosion, combining both traditional Chinese medicine principles and modern medical approaches.

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THERAPEUTIC EFFECT AND MECHANISM OF HEMP LEAF ON PULMONARY FIBROSIS

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Abstract. This article introduces the research achievements of researchers on the effect and mechanism of hemp leaf in treating pulmonary fibrosis.We used the method of multiple intraperitoneal injections of bleomycin to make the animal model of pulmonary fibrosis in mice. After the success of the model, we gavaged the decoction of hemp leaf once a day for 28 consecutive days.Through pathological diagnosis of lung tissue, ELISA and Real-time PCR detection, it was found that, hemp leaf can reduce alveolar inflammation score and pulmonary fibrosis score of lung tissue pathological section, reduce HYP of lung tissue, serum KL-6, MM-7, IL-1β, IL-18 content, reduce relative mRNA expression levels of proteins such as NF-κB p65, NLRP3, ASC, Caspase-1, Gasdermin D, the results showed that hemp leaf alleviated bleomycin-induced pulmonary fibrosis in mice in a dose-dependent manner, and its mechanism may be related to the inhibition of the classical pyroptosis pathway.

Keywords: hemp leaf, pulmonary fibrosi, pyroptosis, bleomycin

Pulmonary fibrosis(PF) is a kind of interstitial lung disease characterized by fibroblast proliferation, large amount of extracellular matrix (ECM) deposition, and destruction of lung tissue structure caused by a variety of reasons. Hemp refers to the industrial hemp whose Tetrahydrocannabinol content is less than 0.3% [1].It is an annual herb of the Cannabis genus of the Cannabaceae family, and has many functions such as nerve protection, anti-inflammatory, antioxidant, anti-tumor, insomnia improvement, and skin self-healing ability.

In recent years, some researchers have found that hemp leaf has anti-fibrosis effects. In this study, we established an animal model of pulmonary fibrosis, and explored the protective effect and mechanism of hemp leaf on pulmonary fibrosis.

Objective

To observe the therapeutic effect of hemp leaf on PF mice and explore its mechanism.

Materials and methods

60 Balb/c mice were randomly divided into blank control group, model group, prednisone group, and low, medium, high dose groups of hemp leaf with 10 mice in each group. Among them, 5 groups were given intraperitoneal injection of bleomycin, to prepare pulmonary fibrosis models. After successful modeling, the drug was administered by gavage once a day for 28 consecutive days. After anesthesia, the lungs and serum of the mice were taken. HE and Masson staining were used to observe the changes of lung tissue. Microassay for detecting hydroxyproline (HYP) in lung tissue; ELISA was used to detect serum KL-6, MMP-7 and IL-1β, IL-18 content; Real-time PCR method for detecting the mRNA relative expression levels of protein such as NF- κB p65, NLRP3, ASC, Caspase-1, and Gasdermin D in lung tissue.

Results and discussion

According to Szapiel's alveolitis scoring method and Hubner's pulmonary fibrosis scoring method, compared with the model group, the pulmonary tissue pathological section alveolitis score and pulmonary fibrosis score in the low, medium and high dose groups of hemp leaf decreased ($P<0.01$ or $P<0.05$). The therapeutic effect of hemp leaf on pulmonary fibrosis is dose dependent. Collagen is the main component of ECM, and the increase in collagen content leading to ECM remodeling is the most important manifestation of fibrosis. HYP is a scale for measuring collagen, which can indirectly reflect the content of collagen in lung tissue and is an important indicator for measuring the degree of fibrosis. Our study found that the HYP content in the lung tissue of the model group mice was significantly higher than that of the blank group ($P<0.01$), which is the direct evidence of the occurrence of pulmonary fibrosis. The HYP content in the lung tissue of the low, medium and high dose groups of hemp leaf decreased ($P<0.01$ or $P<0.05$), which is mutually confirmed with the pathological results.

KL-6, a specific indicator of the function of type II alveolar epithelial cells, has been identified as a biomarker for the diagnosis and prognosis of pulmonary fibrosis in many countries [2].The increase of serum MMP-7 level is positively related to the degree of pulmonary fibrosis. KL-6 and MMP-7 are independent predictors of pulmonary fibrosis. Their simultaneous increase can improve the specificity of pulmonary fibrosis diagnosis. The levels of serum KL-6 and MMP-7 in mice significantly increased compared to the blank group ($P<0.01$). Compared with the model group, the serum KL-6 and MMP-7 contents in the low, medium and high dosage groups of hemp leaf were significantly decreased ($P<0.01$ or $P<0.05$), which proved the alleviating effect of hemp leaf on pulmonary fibrosis from multiple perspectives.

NF-κB p65 protein is NF-κB signaling pathway an important product, as a transcription factor, it can upregulate the transcription of corresponding genes.

The experimental results found that compared with the model group, the mRNA relative expression levels of lung tissue NF-κB p65, NLRP3, ASC, Caspase-1, GSDMD proteins of the low, medium, and high dose groups of hemp leaf, and IL-1β, IL-18 in serum content decreased to varying degrees ($P<0.01$ or $P<0.05$).

To sum up, the therapeutic effect of hemp leaf on bleomycin-induced pulmonary fibrosis animal models is dose dependent, and its mechanism may be to inhibit the occurence of pyroptosis by suppressing the NF-κB signaling pathway.

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APPIICATION OF TRADITIONAL CHINESE MEDICINE DIET IN DIABETES INTERVENTION

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Abstract. Chronic diseases are closely related to dietary problems, especially represented by diabetes. Chinese medicine, with a history of thousands of years, is a treasure of Chinese culture. Since ancient times, China has had the saying of «medicine in food» and «medicine and food have the same origin». That is, to use food as a means to achieve the role of disease prevention, treatment, anti-aging and health.

Keywords: diabetes mellitus; dietary therapy; medicinal food; nursing intervention.

Chinese medicine believes that diabetes belongs to the category of «quenching thirst». Traditional Chinese medicine believes that the occurrence of the disease is mainly related to the internal heat and dryness of the patient's body, fluid depletion, Yin deficiency fire and other factors [1]. It mainly refers to the disease characterized by increased frequency of urination, easy thirst and increased drinking water, weight loss, and sweet urine. The first name of Xiaothirst disease comes from the Emperor's Inner Classic.

Objective

The article starts from the theory of TCM food therapy, through the dietary intervention of diabetes to promote the recovery of patients and achieve the purpose of clinical efficacy.

Materials and methods

With the progress of The Times, how to «cure disease» has attracted wide attention, and TCM medicinal diet is the concrete embodiment of the concept of «cure disease» in TCM therapeutics [2].In the application of medicinal diet, dialectical diet and disease differentiation diet are the basic principles. When selecting medicinal diet for dietary therapy, attention must be paid to the incompatibility between drugs and ingredients [3]. The main principles of traditional Chinese medicine diet should follow the scientific proportion of drug and food compatibility, the degree of food intake, and the balance of drug sex and taste [4]. .Dai Yanling [5] adopted traditional Chinese medicine dietary intervention on 585 patients with type 2 diabetes, and found that the blood sugar of diabetic patients was significantly improved after 12 weeks of clinical observation.Wu Xiaojun [6] added the traditional Chinese medicine diet of cooked lean meat porridge with yam in the observation group on the basis of conventional treatment, and found that the renal function of patients in the observation group was significantly better than that of the control group after 12 weeks.Through research, Jia Huixue [7] found that the implementation of continuous nursing intervention based on the IMB model could improve the self-management ability of diabetic patients and improve the quality of life of patients.Wang Chunxian et al. [8] learned that bitter melon diet can improve the blood sugar of diabetic patients through questionnaires.Exercise helps control blood sugar and is important for people with diabetes[9]Jiang Guanyiqing et al. [10] found through research that exercise can improve the insulin condition of diabetic patients and reduce the risk of cardiovascular disease in diabetic patients.

Results and discussion

In order to maximize the advantages of medicated diet in the treatment of diseases, we should take a variety of ways to popularize the

knowledge of medicated diet. Let more people know about medicinal food.

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RESEARCH PROGRESS OF TRADITIONAL CHINESE MEDICINE NURSING TECHNIQUES IN POSTOPERATIVE PAIN CONTROL OF PERIANAL ABSCESS

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Abstract. Perianal abscess more surgical treatment, due to the perianal local nerve sensitive and rich, surgical open drainage, perianal pain nerve more sensitive than other parts of the body, so need to pay attention to perianal abscess postoperative pain treatment and nursing. This paper summarizes the research progress of TCM nursing technique in controlling postoperative pain after perianal abscess from the perspectives of TCM fumigation, acupoint sticking, ear seed burying, expounds the influencing factors of postoperative pain after perianal abscess, and presents the prospect of TCM nursing technique to control postoperative pain after perianal abscess.

Keywords: Perianal abscess; TCM nursing techniques; postoperative pain; review

As one of the common clinical diseases of anorectal department, perianal abscess has a disease onset rapidly and rapidly, accounting for 8%~25% of anorectal diseases [1]. The common part of this disease is around the anus. At present, the clinical treatment of perianal abscess is mainly surgery. postoperative pain not only brings physical discomfort to the patients, but also brings psychological and economic pressure to the patients. Therefore, it is particularly important to help patients effectively control perianal abscess postoperative pain care.

Ancient doctors not only made detailed records of the name and pathogenesis, but also recognized the crisis and complexity of perianal abscess, and selected different treatment methods according to the progress of the course of the disease, including internal treatment and external treatment, Among them, the internal treatment method includes the «elimination law» in the initial period, «supporting method» in the early period of pus, and «supplementary method» in the later period of collapse.the external treatment includes Chinese medicine enema, Chinese medicine application, acupuncture and moxibustion [2].

Objective

This paper expounds the influencing factors of postoperative pain after perianal abscess, and presents the prospect of TCM nursing technique to control postoperative pain after perianal abscess.

Materials and methods

Chinese medicine fumigation is a kind of traditional Chinese medicine nursing technology that acts on the body with the help of medicinal power and heat. It is a common method of traditional Chinese medicine treatment in the postoperative pain nursing of anorectal diseases.Fumigation and washing of Chinese medicine can make the active ingredients of Chinese medicine fully absorbed by the skin, directly act on the perianal skin with the help of steam, and play the effect of promoting blood circulation, removing blood stasis, reducing swelling and relieving pain [3].

Traditional Chinese medicine directly acts on specific acupoints, and the effect is mild.Through the stimulation and regulation of the acupoints or the affected areas, the efficacy can be fully absorbed to produce a mild and benign stimulation and relieve the pain.

Moxibustion is the moxibustion of TCM acupuncture therapy, is made of moxa leaves or ai velvet moxibustion materials, through the moxa heat stimulation body surface acupoints or specific parts, on the one hand, because of the warm stimulation can expand capillaries, relieve spasm, reduce the nervous system excitability, thus play the role of analgesia, sedative, on the other hand can be through the appropriate stimulation, to stimulate the function of the meridian itself, achieve the effect of shu meridian active analgesic.

Ear point pressing method, also known as ear point and seed burying method, is to put smooth pills, seeds, cereals and other tablets on the tape and fixed in the corresponding acupoints of the ear, stimulated by pressing [4].To dredge the meridians, relieve pain, disease prevention and treatment of a traditional Chinese medicine technologyAfter surgery, specific acupoints can be stimulated to relieve pain, so it can be seen that meridian conduction caused by ear acupoint pressure plays an important role in reducing pain.

Results and discussion

This review summarizes traditional Chinese medicine fumigation, ear point buried seeds, acupoint application characteristic nursing technology of traditional Chinese medicine, embodies the traditional Chinese medicine in relieving perianal abscess postoperative pain treatment in the role of, many scholars show that the application of various characteristics of traditional Chinese medicine nursing technology, can achieve the blood tongluo, regulating the qi and blood of Yin and Yang, warm the cold effect, effectively relieve postoperative pain in patients with perianal abscess, improve patients postoperative wound healing rate, promote health.

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RESEARCH ON THE APPLICATION OF HEAD AND FACE HOLOGRAPHIC SCRAPING AND EYE IRONING IN DRY EYE DEFICIENCY OF LIVER AND KIDNEY

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Abstract. Dry eye, also known as angular conjunctival dryness, refers to the stability of the tear film caused by the abnormal volume and quality or dynamics caused by any cause, and accompanied by the discomfort of the eye, resulting in the characteristics of a variety of diseases. The main method of western medicine to treat dry eyes is to give artificial tears locally, which can achieve a certain effect in the short term, but it is easy to relapse after stopping the drug. Dry eye disease can be attributed to the traditional Chinese medicine «white astringent» «god water will dry» and other categories, its basic pathogenesis for various causes lead to body fluid loss, loss of tears, [1]. Dry eye disease mainly has the following four diseases, namely liver and kidney Yin deficiency, Yin deficiency, lung Yin deficiency, spleen and stomach dampness and heat [2], among which liver and kidney Yin deficiency is the most common, it is appropriate to nourish the liver and kidney, nourish smart eyes, nourish qi and jin, to nourish the eyes and nourish the way.

Keywords: Dry eye disease, liver and kidney, Yin deficiency, head and face, holographic scraping, nourishing liver pills, eye hot iron

Objective

On the basis of the conventional treatment of dry eye in western medicine, this study combined with head and facial holographic scraping combined with eye hot ironing in liver nourishing pills.

Materials and methods

Head and face holographic scraping: prepare before scraping, hands disinfection, using jade scraping equipment, the patient takes the supine position or half sitting position, the head pad is high. Fully smear the scraping oil. Facial holographic scraping method, the use of scraping oil is always in the case of enough wet scraping: scraping strength to the patient feel comfortable, red face is not out of the scraping. The first time: the patient sat, scraping the forehead (head and face), 1 frontal (upper focus), 2 frontal (middle focus), and 3 frontal (lower focus), and then scraping the holographic hole area of the lower occipital neck (jade pillow point), Fengchi acupoint and the corresponding area of cervical eye (1~3 cervical vertebrae and cervical muscles on both sides). Area 1 around the eye, area 2 around the eye and related acupoints (Jingming, zhu, fish waist point, temple, sobbing, pupil) use the point scraping technique (each part 5 times, all scraping for 1 times). Repeat the above operation for 3 times. For the second time, push and scrape the above area: look for the nodule point, scrape the nodule point in one direction; knead the relevant acupoints (each point, nodule point for 5s). Repeat the above operation for 3 times. The third time through the above area scratch: repeat the above operation 3 times. End: knead the relevant acupoints of the eyes with both hands, each acupoint for 3s, relax around the orbit, and end the scraping and wiping.

Chinese medicine hot ironing therapy has a long history, as an effective treatment means, widely used in many fields [3], «shengji total volume 113» pointed out: « blood gas is warm, appropriate to flow, cold, coagulation cry... the ancient square with the method of warm ironing, to spread blood gas, make it xuan liu.»In addition to the physical thermal phase effect of pure hot ironing, it can also use the thermal effect to promote the penetration and absorption of drugs. Liver pills eye hot iron: using liver pills (wine angelica, kernel cream, front, ground, wind, bitter, peony, mulberry seeds 10g), after rough processing, put it into the homemade 30cm 10cm bag prepared, into the steam pot steam 20~30min, medicine temperature cooling to 40~42°C, the patient take supine position, need to close eyes, the medicine to the eyes, winter bag temperature drops fast, repeated heating apply, 20~30min each time, once a day, hot compress, clean the local skin with clean gauze. During the operation, observe the patient's skin and ask the patient to avoid scald, and treat for 4 weeks.

Results and discussion

With the increasing incidence of dry eye, dry eye disease has become the research focus of ocular surface diseases. However, the current western medicine treatment method treats the symptoms, the commonly used artificial tears contains preservative is not suitable for long-term use, the long-term effect is not ideal; various traditional Chinese medicine treatment methods should be metabolized through the liver, increase the burden of liver, and the Chinese medicine taste is poor, patients are not easy to persist; acupuncture and atomization can wet the patient head and face, poor comfort; on the other hand, the TCM treatment system is imperfect, the number of TCM dry eye is small, the sample size is small, and the mechanism exploration is simple. Therefore, the future research

on dry eye disease should focus on finding more convenient, efficient and safe treatment methods, at the same time further establish and improve the diagnosis and treatment standards, increase relevant experimental research, and explore the mechanism of traditional Chinese medicine treatment of dry eye, so as to provide more effective and reliable treatment methods for the treatment of dry eye disease.

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THE COMPATIBILITY RULE OF CHINESE HERBAL MEDICINE USED BY PROFESSOR WANG DAN IN TREATING PROTEINURIA IN DIABETIC KIDNEY DISEASE: BASED ON DATA MINING

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Abstract. Data mining technology was used to analyze and summarize the 173 cases of diabetic kidney disease(DKD)proteinuria collected by the supervisor, aiming to analyze the characteristics of thesupervisor's medication in the treatment of proteinuria in diabetic nephropathy. The purpose is to systematically summarize the ideas of differentiation and treatment, so as to learn and inherit the clinical experience of the supervisor in the treatment of proteinuria in DKD.

Keywords: diabetic kidney disease; proteinuria; medication characteristics; data mining

Studies have shown that diabetic kidney disease (DKD) is the main cause of end-stage renal disease (ESRD).And once DKD enters the stage of massive albuminuria, the progression to ESRD is about 14 times faster than that of other renal diseases, so it is important to prevent, diagnose, and treat DKD as early as possible to reduce and slow down its development[1-2]. Data mining technology is widely used in the field of Chinese medicine research, and it reflects great advantages in the transmission and summarization of famous doctors' experiences[3]. Using data mining methods, 173 cases collected and organized by the supervisor to identify and treat DKD proteinuria were analyzed and summarized to explore the characteristics of their medication and develop the ideas of clinical evidence.

Objective

To analyze the characteristics and core drugs used by Prof.Wang Dan in the treatment of DKD proteinuria and to summarize her clinical experience.

Materials and methods

(1) To collect and sort out the medical records of patients with DKD and proteinuria who met the inclusion and exclusion criteria from September 01. 2016 to December 30. 2021 in the nephrology outpatient clinic of the Second Affiliated Hospital of Heilongjiang University of TraditionalChinese Medicine. Enter general information, diagnosis, syndromes, and first-visit prescription into Microsoft Office Excel 2019 software to establish a complete medical record database. (2) Use data mining technology to conduct frequency analysis on patients' gender, age, syndrome, symptoms, tongue and pulse, and prescription drugs; use IBM SPSS Modeler 18.0 software to conduct association rule analysis on drugs-drugs; drugs were analyzed by systematic clustering; drug characteristics were summarized.

Results and discussion

General information: (1) A total of 173 medical records were included in this study, including 93 males and 80 females. The age distribution was 38 -71 years old, of which 29 people were under 50 years old; 79 people were 50-59 years old; and 65 people were over 60 years old. (2) Syndrome statistics: 78 cases of deficiency of spleen-kidney with dampness-stasis stagnation, 54 casesof spleen and kidney qi deficiency wet turbidity inherent syndrome, 17 cases of liver and kidney yin deficiency

kidney collateral stasis,16 cases ofdeficiency of Qi and Yindamp-heat obstruction syndrome, 5 cases of kidney yin and yang deficiency and damp stasis syndrome, and 3 cases of kidney Yin and Yang deficiency and damp-heat obstruction syndrome. (3) Medication statistics: Among the 173 first-diagnosed prescriptions, a total of 151 herbs were involved. The categories of medicines are in turn tonic medicines,heat-clearing medicines, blood-activating and stasis-removing medicines, diuresis-dampening medicines, and astringent medicines, etc. The top ten medicines used frequently were astragalus, Dangshen, Dioscoreae Rhizoma, corn silk, Danshen, Hirudo, Ligustri Lucidi Fructus, Lycium barbarum L., Diaphragma Juglandis Fructus and Tufuling. Commonly used drug pairs are: corn silk - Hirudo, angerine peel- pinellia, rehmannia glutinosa-cornus officinalis, peony root - niuxi, Poria-Alismatis Rhizoma,Ophiopogonis Radix- Schisandra chinensis, ligustrum lucidum - astragalus complanatus, Eucommia ulmoides-Taxillus chinensis;There are: tuckahoe - atractylodes - white peony root, radix ranunculi ternati - euonymus alatus - diaphragma juglandis fructus; drug combination: Dioscoreae Rhizoma - corn silk - Dangshen - Danshen - Huangqi.

Conclusion

The supervisor's differentiation and treatment of this disease emphasizes the combination of disease differentiation and syndrome differentiation, making good use of drug pairs and drug strings, emphasizing compatibility to reduce toxicity and increase efficiency, calm down cold and heat, and regulate yin and yang; the core drugs are astragalus, codonopsis, chinese yam, corn silk, and salvia, the medicine skewers include corn silk - leeches, radix ranunculi ternati - euonymus alatus - diaphragma juglandis fructus, etc, which reflects my supervisor's emphasis on the foundation of strengthening and protecting the early days, nourishing the kidney and strengthening the spleen, strengthening the essence, removing blood stasis and dredging collaterals and diarrhea. The characteristics of turbidity and detoxification are mutually beneficial.

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STUDY ON THE EFFECT OF SCALP POINT CLUSTER ACUPUNCTURE ON THE RELATED MECHANISM OF ALZHEIMER'S DISEASE

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Abstract. Alzheimer's disease (AD) is a chronic degenerative disease of the central nervous system characterized by progressive cognitive impairment and behavioral impairment. The study found that scalp point cluster acupuncture has a good effect on improving cognitive dysfunction in patients with AD, but the specific mechanism is not clear. The purpose of this paper is to sort out the influence of scalp point cluster acupuncture on the related mechanism of AD and provide a basis for AD treatment.

Keywords: Alzheimer's disease;cluster needling at scalp points

Alzheimer'sdisease is a common neurodegenerative disease in clinic. At present, the approved drugs on the market can only alleviate the clinical symptoms of AD, but can not cure the disease completely. Therefore, to explore the relevant pathogenic mechanism and prevention and treatment of AD is the focus of medical attention in the past decade. Acupuncture plays an important role in the prevention and treatment of AD and is widely used in clinic. Professor Yu Zhishun established Yu's scalp acupuncture on the basis of «needle field» theory, and put forward the acupuncture method of scalp cluster needling with long needle retention, which has a good effect in the treatment of AD in clinic.

1.The pathological mechanism of AD

At present, there are several mainstream theories of pathological mechanism of AD: amyloid

β-protein, (Aβ) theory: under normal circumstances, Aβ can be cleared. Senile plaque formed when A β can not be removed is the most important pathological product of AD. Hyperphosphorylation of Tau protein: under normal condition, the binding of Tau protein to microtubule can enhance the stability, but when the protein is hyperphosphorylated, it will form neurofibril tangle, which leads to AD. Third, the theory of neuroinflammation: the occurrence of acute inflammation is beneficial to the nervous system. When the chronic inflammatory reaction occurs, the pro-inflammatory factors will stimulate the deposition of Aβ plaque, and the plaque will also aggravate the inflammatory reaction and accelerate the process of AD; fourth, cholinergic hypothesis: studies have found that cholinergic neurons in the brain of patients with AD are lost, resulting in acetylcholine, (Ach) synthesis disorders, and finally lead to the occurrence of AD.

2.Theoretical basis of scalp point cluster needling method

Yu's scalp acupuncture is a cluster acupuncture method of scalp points established by Professor Zhishun on the basis of years of clinical experience and experimental research. Yu's scalp acupuncture divides the head into seven regions, namely frontal region, occipital region, parietal region, neck region, anterior parietal region, suboccipital region and temporal region, each of which has its own main function, and when acupuncture in one area, due to the mutual influence of the acupuncture field, the effect of acupuncture can spread to the adjacent areas and expand the scope of treatment.

3.Experimental study on cluster acupuncture of scalp points in the treatment of AD

Cluster acupuncture at scalp points is widely used in the treatment of central nervous system diseases, and both clinical and experimental studies have shown a good effect on the disease. Wang Chunxia et al found that cluster acupuncture at scalp points can inhibit the activity of NF- κB signal pathway, control the expression of downstream related molecules, reduce the expression of BACE1, reduce the production of Aβ, and reduce inflammatory reaction, thus further improve a series of symptoms caused by AD. Some studies have shown that cholinergic cells in the basal forebrain were severely degenerated in the early stage of AD, the expression of acetylcholine and choline acetyltransferase were down-regulated, and the activity of ChAT decreased significantly with the development of the course of disease. Li Honglin and other studies have found that cluster acupuncture at scalp points can regulate the cholinergic system and improve the learning and memory of patients with AD. Through experiments, it is found that cluster needling at scalp points can up-regulate ChAT activity and down-regulate AchE activity to improve the learning and memory ability of AD rats.

4.Deficiency and prospect

Acupuncture has A good inhibitory effect on Aβ deposition, neuroinflammatory action and cholinergic mechanism. Through the summary, it is found that the pathogenesis of AD does not exist independently, and each pathogenetic factor influences each other, and the mechanism studies on acupuncture treatment of AD are mostly based on a single mechanism, lacking comprehensive consideration of multiple mechanisms. Future studies should first explore the correlation of acupuncture treatment of AD mechanism from multiple perspectives, in order to provide a more complete theoretical basis for clinical application.

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RESEARCH STATUS OF ACUPUNCTURE AND MOXIBUSTION IN THE TREATMENT OF ALZHEIMER'S DISEASE

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Abstract. Alzheimer's disease is a degenerative central nervous system disease that is currently incurable. Alzheimer's disease brings pain to patients, heavy pressure and burden to families and society. Traditional Chinese medicine is a treasure of the Chinese nation and the world, with the advantages of multiple pathways, multiple targets, and small toxic side effects, which makes up for the shortcomings of modern medicine. Therefore, the treatment of AD by traditional Chinese medicine deserves attention.

Keywords: Alzheimer's disease; Acupuncture; Moxibustion; Medicinal herb; Chinese medicine

Alzheimer's disease (AD) is a progressive neurodegenerative disease associated with increasing age, the most common type of dementia, characterized by amyloid plaque deposition, tangles of neuronal fibers, impaired neuronal and synaptic apoptosis, and progressive decline in memory and other cognitive functions. AD belongs to the category of «dementia» in Chinese medicine, the cause of the disease is in the brain, closely related to the dysfunction of the five internal organs, and the mechanism of the disease is insufficient kidney essence and empty medullary sea.

There is currently no effective treatment for AD, and the existing drugs for the treatment of AD mainly include cholinesterase inhibitors and glutamate receptor antagonists, but these drugs have a single drug treatment route and have corresponding side effects, so these drugs bring pain to patients while treating the disease. However, there are various treatment methods of traditional Chinese medicine, such as acupuncture, traditional Chinese medicine, moxibustion, etc., and a variety of treatment methods can be carried out simultaneously, so it is expected to play an important role in the treatment of AD based on the advantages of multi-target and small toxic side effects of traditional Chinese medicine.

1. Acupuncture for AD

The mechanism of AD is closely related to the deposition of β-amyloid (Aβ), one of the classic pathological features of AD, which is hydrolyzed by amyloid precursor protein (APP). Luo et al. [1] analyzed the relevant literature of acupuncture treatment of AD in recent years, showing that acupuncture plays an important role in the prevention and treatment of AD, and has achieved positive results. Yu et al. [2] found that the use of high-frequency electroacupuncture could reduce the expression level of Aβ1-40 in the hippocampus of AD rats, which may be because electroacupuncture can inhibit glycogen synthase kinase (GSK)-3β activity, inhibit downstream APP and Aβ expression, and improve spatial learning and memory function. Zhang et al. [3] found that after electroacupuncture, the expression of p38-mitogen-activated protein kinase (MAPK) in AD rats was downregulated and the concentration of Tau protein decreased, which significantly improved the cognitive deficit in the CA1 region of the hippocampus in AD rats. These results show that acupuncture, especially electroacupuncture, has a good effect on improving cognition by regulating AD-related proteins and inhibiting inflammatory responses.

2. Moxibustion for the treatment of AD

Moxibustion is one of the traditional Chinese medicine treatment systems, and its warm stimulation has the functions of adjusting the meridians of the human body, stimulating yang qi, and regulating qi and blood. The dementia disease is located in the kidney, which is closely related to the deficiency of kidney yang, and the tu pulse is the sea of yang veins and enters the brain and kidney. Therefore, moxibustion mostly takes acupoints from the tu pulse to replenish yang qi, unblock the brain network, improve essence and fill the essence, regulate the qi machine, remove phlegm and blood stasis, and prevent AD [4].

Moxibustion is able to reduce Aβ production and deposition. Zhou et al. [5] found that moxibustion Baihui, Shenshu and Yintang acupoints could inhibit the expression of matrix metalloproteinase, reduce blood-brain barrier damage, and effectively improve the learning and memory ability of AD rats. Lv et al. [6] found that moxibustion «qi» can significantly promote the expression of apolipoprotein E in AD rats, promote Aβ degradation, and improve brain tissue morphology and cognitive function.These studies all show that moxibustion, especially moxibustion, can improve AD symptoms in many aspects, and has the advantages of multi-target, multi-channel and multi-level.

3. Summary and prospect

Traditional Chinese medicine has the advantages of multi-pathway, multi-level, multi-

pathway and few side effects in the treatment of diseases. AD is a global problem that afflicts the whole world, brings tremendous pressure and economic burden to patients, families and society, and is a global health problem that needs to be solved urgently. The treatment of AD by traditional Chinese medicine is the direction that researchers are working hard at present, and good results have been achieved. Although there is still no cure for AD, TCM treatment is expected to play an important role in the treatment of AD.

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OBSERVATION OF THE EFFICACY OF CATGUT EMBEDMENT IN FOUR ABDOMINAL ACUPUNCTURE COMBINED WITH MEDITERRANEAN DIET IN SIMPLE OBESITY

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Abstract. To observe thetherapeutic effect of catgut embedment in four abdominal acupuncture combined with mediterranean diet on simple obesity.Sixty-six cases of simple obesity were randomly divided into treatment group and control group, 33 cases in each group, the treatment group was treated with abdominal four-needle acupuncture combined with Mediterranean diet, and the control group was treated with Mediterranean diet therapy. The course of treatment of the two groups was 1.5 months. Body mass(Wt), waist circumference (WC), abdominal circumference (AC),hip circumference (HC),body fat percentage (F%), and body mass index (BMI) were observed before and after treatment.

Keywords: simple obesity; catgut embedment in four abdominal acupuncture; mediterranean diet

Simple obesity is a condition in which a large amount of body fat accumulates, causing body mass to exceed the normal range. Simple obesity is a condition in which body mass exceeds the normal range due to the accumulation of large amounts of fat in the body. With the change of lifestyle and dietary structure, and the generation of bad habits, the incidence of obesity and overweight in China has been increasing year by year and showing a trend of youthfulness [1]. As a special acupuncture therapy, acupoint acupuncture has the advantages of fewer adverse effects, significant therapeutic effect, and long-lasting effect, which is easy to be accepted by the public. Therefore, the purpose of this study is to explore the safe, effective, stable and highly compliant TCM therapy, and to investigate the changes of body mass, body fat percentage, waist and abdominal circumference, BMI, before and after the treatment.The aim of this study was to explore the therapeutic effects and possible mechanisms of abdominal four-needle acupuncture point embedding on patients with simple obesity.

Objective

To explore the efficacy of catgut embedment in four abdominal acupuncture combined with mediterranean diet program on simple obesity, to effectively treat simple obesity, and to improve the quality of life of patients.

Materials and methods

Adult patients with simple obesity certificate who attended the Fat Reduction Clinic of the Second

Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine and met the inclusion criteria were selected, including 66 cases. No. 7 disposable buried needle, take a piece of PGLA thread about 3cm long. Put it into the front end of the needle, keep the length of the thread inside and outside the hole basically the same, do not need the core of the needle, choose the needle point at a certain distance from the acupoint, and sterilize the local skin.Once every 14 days, 3 times for a course of treatment. The efficacy of the treatment was determined after 1 consecutive course of treatment. The efficacy of the treatment was determined after 1 course of continuous treatment and followed up for 3 months after the completion of the treatment.Mediterranean diet: Dietary style based on vegetables and fruits, fish, grains and cereals, legumes and olive oil(2)Acupuncture poin ts:Guanyuan(CV4),Zusanli(ST36),Yinlingquan(SP9),Shuifen(CV9),Pishu(BL20),Fenglong(ST40).

Results and Discussion

Chinese medicine believes that the occurrence of obesity is mostly attributed to the malfunction of the spleen and stomach, the spleen is the source of qi and blood biochemistry, the spleen is weak, the transport failure, the water and grain essence and micro-conveyance of the disorder, which is transformed into cream and phlegm, blocked in the skin and coupling between the hair for the obesity. The nature of the disease is more of a deficiency of the standard, mixed solid and deficiency. Acupuncture buried thread treatment is a further extension and development of acupuncture therapy [3], is the absorbable collagen thread through the buried needle buried into the body, with the absorption of the thread body decomposition, can be specific acupuncture points to produce a lasting and effective stimulation, such as strengthening the function of the body's endocrine system, to promote the normal metabolism and decomposition of fat, to inhibit the patient's excessive appetite, thus reducing the intake of energy.

The results of this study show that the total effective rate of the experimental group is significantly higher than that of the control group, and the difference is statistically significant ($P<0.05$); after the treatment of the two groups, the body weight, circumference index and BMI are lower than before the treatment, and the experimental group is significantly lower than that of the control group, and the difference is statistically significant ($P<0.05$). It can be seen that catgut embedment in four abdominal acupuncture combined with the Mediterranean diet for the treatment of simple obesity, has more prominent clinical efficacy, and in the process of this study also found that the acceptance of the treatment mode of the patient is higher, the clinical application of the process did not see any obvious adverse reactions, but also has the advantage of high security.Therefore, catgut embedment in four abdominal acupuncture with the Mediterranean diet therapy for the treatment of simple obesity, the clinical efficacy is accurate, and it is worth further promotion.

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NATIONAL PHYSICIAN MASTER SUN SHENTIAN HEALTH CARE EXPERIENCE

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Abstract. Medicine is the health of the crystallization of the wisdom of the Chinese nation for thousands of years. This article from the disease prevention, comply with since then, a balance of Yin and Yang theory of interpretation of traditional Chinese medicine keeping in good health culture from the aspects such as foundation, from the spiritual, sports, food, medicine of traditional Chinese medicine keeping in good health culture from the aspects such as experience method, development of traditional Chinese medicine keeping in good health culture, promoting the development of the career of traditional Chinese medicine for the future theoretical and practical basis.

Keywords: health care;Introduction to experience;Sun Shentian

National physician master Sun Shentian , especially good at acupuncture treatment of cerebrovascular disease and all kinds of mental illness, after introducing neurology acupuncture and Chinese medicine field, the establishment of a new acupuncture clinical pattern, and has been in use today.Old at the time of clinical treatment for patients with sun, also remind attaches great importance to the daily health care patients, the health theory contain not disease prevention first, conform to nature, a balance of Yin and Yang, movement is appropriate, has the aspects of diet, the experience summary are as follows.

1. Inside and outside the united

Sun Shentian think: «whether people sick or not, all want to pay attention to mental health in our daily life, always keep positive mental outlook1. The first thing to do is the correct attitude, to be without hope and greed, the second is thought moderate, finally is optimistic strong, magnanimous and open-minded.Sun Shentian industry, with emphasis on practice and practical for the purpose of the practice, to be a, object to show off talking, never little word and others not, and light like water, cause heavy mountain, wealth rank equally, heart is magnanimous, lines with clear conscience, do as human medical standards.

2. Moderate exercise

Poor circulation of qi and blood will lead to disease, and to ensure that the blood flow and to doing moderate physical exercise every day.Sun Shentian points out, want to have a healthy body and prolong life, can make the adjustment of qi and blood, and, by sports keeping in good health do «form and spirit».Exercise regimen is refers to by eight jin, yi jin jing, wuqinxi, too, to unclog the meridian and qi-blood factors after operation, to maintain health, strengthen body and prolong life, delay aging health preservation methods2.

3. Diversity of diet

Health food is using food to affect the body all aspects of the function, make its get healthy or a way of keeping in good health, the disease prevention is one of the features of Chinese medicine keeping in good health, not only can reduce the risk of disease, also slow down the progress of the disease, and can assist drug efficacy into full play.Sun Shentian at ordinary times often told us both in physically fit and with a rare disease should pay attention to health food3, in the process of clinical treatment of disease, old sun often alert patients combined with diet, not only can give patients convenient, increase compliance, will also be able to make up for the inadequacy of drug efficacy.

4.The spirit of keeping in good health

Sun also stay positive in life philosophy of mind. Old sun once said: «the unpleasant matter, ten to often.Don't whine about when we face suffering, might as well as plain calm state of mind to face difficulties, perhaps the result of things will become very good.»Youth old sun permanently disabled as a result of the knee joint disease misdiagnosis. Although the cruel reality tormented him body and mind all the time, but the pain did not defeat him, he said, «can blow your fate, but also help you, physical disability instead become aggressive power!»He surrender to fate, with majestic extraordinary perseverance engaged in medical business, with silver needle drawing blueprint for life.With sun in old firm ideal and faith, determination and optimism, makes him overcome the disease, and remarkable achievements in acupuncture is career.

5.To protect the kidney essence

In the process of human growth, reproduction and aging of the kidney essence sheng's role is crucial.Sun Shentian thought, kidney essence not only have the function of the reproductive growth4, also to resist invaded and human health care and rehabilitation are play an important role.The the body is invaded by invasion attack or viscera function for a long time for a long time, is likely to be damage to the kidney Yin kidney Yang, cause functional impairment, eventually leading to let tine shakes, bone feebleness, as well as the mental burnout phenomenon.

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RESEARCH PROGRESS ON THE CORRELATION BETWEEN CONSTITUTION AND POLYCYSTIC OVARY SYNDROME

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Abstract. In traditional Chinese medicine, there is actually no name for PCOS, but in ancient Chinese medicine books, similar records of the disease are scattered in amenorrhea, infertility, late menstruation and other articles.

Keywords: Polycystic ovary syndrome, phlegm and dampness syndrome

The concept of «Constitution» is a fundamental aspect of Traditional Chinese Medicine (TCM) theory, specifically in relation to pathophysiology. The advancement of TCM constitution theory has played a crucial role in facilitating research on the correlation between constitution and disease. This research has provided valuable evidence for TCM practitioners to conduct personalized syndrome differentiation and ultimately enhance treatment outcomes. Polycystic ovary syndrome (PCOS), a multifaceted gynecological disorder influenced by endocrine and metabolic dysfunctions, affects approximately 4% to 21% percent of people[1]. In recent years, research has indicated that Traditional Chinese Medicine (TCM) has demonstrated positive clinical effectiveness in treating polycystic ovary syndrome (PCOS)

Objective

The objective of this study is to consolidate existing information from published clinical studies, establish evidence regarding the correlation between constitution and PCOS, and provide guidance for future research endeavors and clinical decision-making.

Materials and methods

Databases searched by the search strategy include CNKI, Wanfang Data, VIP, PubMed and Embase databases. The search period is from April 1, 2009(the date of promulgation of the standard of Classification and Judgment of TCM Physique) to July 1, 2023. In the three Chinese databases, search was used in the title [« polycystic ovary syndrome «or «PCOS»]+» constitution», and search in the full text or unqualified field for «Chinese medicine». The specific strategies in PubMed are as follows :#1:polycysticovarysyndrome;#2:constitution;#3:Chinesemedicine;#4:#1AND#2AND#3.TCM constitution measurement tool used in the research is the standard of «Classification and Judgment of Traditional Chinese Medicine Constitution» issued by the Chinese Society of Traditional Chinese Medicine[2].

Results and discussion

A total of 650 studies were retrieved, and 29 studies were included in the analysis, with a total sample size of 7102 cases.Among them, the top three were phlegm-dampness in 1385 cases, accounting for 19.5%, Yang deficiency in 1044 cases, accounting for 14.7%, and qi stagnation in 916 cases, accounting for 12.9%.The results suggest that phlegm-dampness, Yang deficiency and qi stagnation are the main physical types of PCOS patients, and the phlegm-dampness is the most closely related to the pathogenesis of PCOS. In traditional Chinese medicine, there is actually no name for PCOS, but in ancient Chinese medicine books, similar records of the disease are scattered in amenorrhea, infertility, late menstruation and other articles.At present, the pathogenesis of PCOS is considered in traditional Chinese medicine: spleen-kidney Yang deficiency, phlegm-dampness block.Phlegm and dampness are caused by the

abnormal transport and distribution of body fluid in the body, which causes water and dampness to stop accumulation. The main characteristics are sticky and heavy turbidness, obesity and abdominal fat and soft are the main body shape, and other manifestations are facial skin oily, sweaty and sticky, chest tightness, phlegm, eating fat and sweet and sticky, fat tongue, greasy fur, and slippery pulse. This is very similar to the clinical characteristics of PCOS .Now the incidence of polycystic ovary syndrome is increasing year by year, especially the tendency of younger people.Phlegm-dampness constitution is a predisposing constitution of PCOS . Women with phlegm-dampness can easily be affected by external factors.In this regard, we should identify susceptible people, improve the bias of physique as much as possible, and achieve the role of TCM physique theory «treating no disease». From the essence to find the reason, to achieve the prevention of such people, reduce the incidence.

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CLINICAL OBSERVATION ON THE TREATMENT OF CHEST CONGESTION BY PENETRATING JIUWEI ACUPOINT POINT WITH MANG ACUPUNCTURE TANZHONG ACUPOINT POINT

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Abstract. Objective:To explore the clinical efficacy of using the mang needle tanzhong acupoint point to penetrate the Jiuwei acupoint point for the treatment of chest congestion. Methods:60 patients with chest tightness were randomly divided into observation group and control group, 30 cases in each group. The control group was treated with traditional acupuncture at tanzhong acupoint point, and the observation group was treated with acupuncture at tanzhong acupoint point by penetrating Jiuwei acupoint point. After the same course of treatment, the clinical efficacy and quality of life of the two groups were evaluated. Results:Comparing the clinical efficacy, the total effective rate of the observation group was higher than that of the control group (90.26% versus 73.87%, P<0.05). Conclusion:Both can effectively improve the symptoms and quality of life of patients with chest congestion. The acupuncture therapy of tanzhong acupoint penetrating Jiuwei acupoint is more effective.

Keywords: Chest tightness;Mang acupuncture;Tanzhong acupoint through Jiuwei acupoint;Clinical observation

Chest tightness is a subjective feeling of chest tightness and dyspnoea, which can be caused by neurological or pathological chest tightness. Functional chest tightness caused by functional syndromes, or pathological chest tightness caused by thoracic organ lesions, seen in many diseases [1]. In serious cases, it affects work and life, and should be taken seriously.

Objective

To explore the clinical efficacy of using the mang needle tanzhong acupoint point to penetrate the Jiuwei acupoint point for the treatment of chest congestion.

Materials and methods

In this group, 60 patients with chest tightness were selected and randomly divided into 2 groups, 30 cases each in the control group and the observation group. Comparing the general information of the 2 groups of patients, such as gender, age, condition and disease duration, the difference was not statistically significant (P>0.05) and was comparable.

Control group: 30 cases of chest congestion patients were given conventional acupuncture treatment. The operator selected the tanzhong acupoint point of the patients, with a diameter of 0.3 mm, the length of 40 mm millimetre needle straight or oblique stabbing tanzhong acupoint point, the depth of acupuncture should not be too deep, and after getting the gas to carry out the lifting and inserting twisting manoeuvres, and then stay in the needle for 30 minutes, once a day for 5 days as a course of treatment. Observation group: 30 cases of chest congestion patients given mango needle tanzhong acupoint point penetrating stabbing the tail point acupuncture treatment. The operator locates the tanzhong acupoint point and Jiuwei acupoint point, and uses a 0.4 mm in diameter and 125 mm in length manchine needle to penetrate the tanzhong acupoint point to the Jiuwei acupoint point, the depth of the needle should be shallow, and the needle sense is transmitted to the chest and ribs by lifting, inserting and twisting after getting the qi, and then the needle is left in the chest and ribs for 30 minutes, once a day for 5 days as a

course of treatment.

Results and discussion

Formulated according to the Diagnostic and Therapeutic Criteria for Chinese Medicine Diseases. Clinical cure: disappearance of symptoms such as chest tightness and dysphoria, no abnormality in 1 week follow-up. Effective: symptoms such as chest tightness and dysphoria are reduced. Ineffective: no change in symptoms such as chest tightness and dysphoria compared with the pre-treatment period[2].Compared with 73.87% in the control group, the total effective rate of treatment in the observation group was higher at 90.26% ($P < 0.05$).

Su Wen - Ling Lan Mysterious Classic:»The tanzhong acupoint is the official of the minister, and joy comes out of it.» It shows that the tanzhong acupoint can convey the function of the heart's joyful will. Spiritual Pivot - Treatise on the Sea:»The tanzhong acupoint is the sea of qi «. The tanzhong acupoint point is one of the eight points, for the gas will be, and for the pericardium raised points, so also known as the sea of gas. It is also known as the upper sea of qi. It has the function of broadening the chest and regulating the qi, and regulating the qi. Pu Ji Fang - Acupuncture and Moxibustion recorded: «To cure the heart's boredom and dislike of hearing people's words, acupuncture point Jiu Wei .» As an acupoint in the upper abdomen of the Ren Vein, Jiuwei acupoint is able to relieve the chest and diaphragm qi, and has the function of regulating qi and dispersing depression. As an acupoint of the Ren vein, it can play the role of «attracting yang from yin». As the «sea of yang», the Governor's pulse, with which Jiuwei acupoint is connected, is able to invigorate the body's yang qi, so that depression can be dispersed, and emotions and moods can be smooth[3].Tanzhong acupoint and Jiuwei acupoint belong to the Ren vein, and the Governor's pulse, so they can regulate the Ren and Dudu Chakras to disperse knots and regulate qi.Jiuwei acupoint is also a point of the Ren vein, treating heart gas pain, palpitations and chest fullness. The two points can improve the therapeutic effect of chest congestion.

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CLINICAL OBSERVATION ON ACUPUNCTURE COMBINED WITH EXERCISE IN THE TREATMENT OF DYSMENORRHOEA OF QI STAGNATION AND BLOOD STASIS TYPE

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Abstract. Objective: To observe the clinical efficacy of acupuncture combined with exercise in the treatment of dysmenorrhoea in qi stagnation and blood stasis syndrome. Methods: The 70 patients were randomly divided into the control group and the experimental group, with 35 patients in each group. Conventional acupuncture was used in the control group and conventional acupuncture combined exercise in the treatment group. After the same time, the clinical efficacy of both groups was evaluated. Results: Comparing the treatment effect of the two groups, the treatment rate of the experimental group was higher than that of the control group. (94.29%VS74.29%, $p<0.05$). Vas scores decreased after treatment and were lower in the treatment group ($p<0.05$). Conclusion: Both treatments can treat qi stagnation and blood stasis dysmenorrhea, but acupuncture combined with exercise is better.

Keywords: Acupuncture, Exercise, Qi stagnation and blood stasis, Dysmenorrhoea

Dysmenorrhoea is a condition in which women experience cyclical pain in the abdomen or pain leading to the lumbar-sacral area during or around the menstrual period, or even severe pain or accompanied by nausea and vomiting, etc. It is considered to be closely related to the uterus and the liver and kidney. Traditional Chinese medicine believes that this disease is located in the uterus, and is closely related to the Chong Ren two veins and the liver and kidneys. Qi stop running, and the blood operation is weak, resulting in stasis, «stagnation of qi and blood may bring about pain «, then for dysmenorrhoea. In this study, patients with dysmenorrhoea due to qi stagnation and blood stasis were given acupuncture treatment combined with exercise, compared with acupuncture treatment alone, which is reported as follows.

Objective

To observe the clinical efficacy of acupuncture combined with exercise in the treatment of dysmenorrhoea in qi stagnation and blood stasis syndrome.

Materials and methods

The cases were from 70 female patients in the outpatient department of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine,which reference to *Chinese Medicine Gynecology* [1] and *Primary Dysmenorrhoea Guidelines* [2], the disease was identified as dysmenorrhoea, and the diagnosis was qi stagnation and blood stasis. The patients were randomly divided into control group and experimental group with 35 patients in each group. Compared to the age and disease duration of the two groups, the difference was not statistically significant (P> 0.05), which was comparable.

Control group: conventional acupuncture treatment was used. Acupuncture points: Zhongji, Sanyinjiao, Diji, Ciliao, Shiqizhui, Taichong, Xuehai. 0.30×40mm acupuncture needles were used, and after needling the above acupoints, then the needles were left in place for 30 minutes and then withdrawn. Once a day, continuous needling for 5 days.

Experimental group: conventional acupuncture treatment with exercise. The acupoints were the same as those of the control group. the patient was guided to do chest expansion movement, arm swing, leg lifting, waist rotation and other movements before acupuncture treatment, and to move for 10 minutes to make the body a little hot. rest for a moment, the same control group was operated. During the process of needle retention, The patient was asked to lie flat on the bed so that the waist and legs move regularly together, and if they felt tired, they could take a rest in the middle of the process, once a day for 5 days.

Efficacy Observation: According to the standard of primary dysmenorrhea in the *Standard for Diagnosis and Efficacy of Traditional Chinese Medicine* [3]. Cure: The pain resolved for three menstrual cycles; Improve: pain was reduced or pain disappeared but could not be maintained for 3 months; Ineffective: pain did not improve. Visual analogue score (VAS) was used to assess the change in the patients' pain level. Data were processed by SPSS26.0 statistical software, measurement data are expressed as (± s) and t test; count data are expressed by rate (%) and χ^2 test. Data fit to normal distribution, P <0.05. It was statistically significant.

Results and discussion

Comparison of clinical efficacy between the two groups: see Table 1, Comparison of the VAS scores between the two groups: see Table 2.

Table 1

Group	Sample	Cure	Improve	Ineffective	Total effective rate
Treatment group	35	25	8	2	94.29%
Control group	35	17	9	9	74.29%

Table 2

Group	Sample	VAS score	
		pretherapy	post-treatment
Treatment group	35	5.94±1.57	1.97±1.33
Control group	35	5.97±1.65	3.05±1.59
T-value		0.089	3.496
P-value		0.930	0.001

The above results showed that acupuncture combined with exercise in the effect of qi stagnation and blood stasis. In Supplement to the Essential Prescriptions Worth a Thousand Gold[4], it is suggested that «all diseases are caused by congestion of qi and blood, which cannot be declared», and the combination of acupuncture and exercise can mobilise the human body's qi and stimulate the blood to run, so as to achieve the effect of qi activation and blood circulation, menstruation regulation and pain relief. Meridian is the channel of qi and blood operation. The qi of the whole body is moving all the time.Stagnant qi can't push blood to run. Therefor, acupuncture combined with exercise can regulate qi, accelerate the operation of qi and blood, remove stagnation and blood stasis, and prevent pain, thus treating dysmenorrhoea.

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CLINICAL OBSERVATION ON THE TREATMENT OF COLD BY SUPERFICIAL ACUPUNCTURE

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Abstract. Objective: To observe the clinical effect of cold treatment. Methods: 80 patients diagnosed with common cold in the outpatient department were randomly divided into treatment group and control group, with 40 patients in each group. The control group used conventional acupoint collection and acupuncture method, and the treatment group used superficial acupuncture combined with conventional acupuncture. After the same treatment course, the clinical efficacy was compared between the two patient groups. The total response rate was higher in the treatment group than in the control group (92.5% vs 82.5%, P < 0.05). Conclusion: Both treatments can effectively improve the symptoms of cold patients, but the semi-prick method combined with conventional acupuncture will be better.

Keywords: Superficial acupuncture, Colds, Slight sweating

Colds are caused by wind or seasonal evils, or by the body's own deficiency, and are characterised by symptoms such as nasal congestion and runny nose, headache, chills and fever, and a floating pulse. The name of cold was first seen in the Northern Song Dynasty in «Renzhai Zhi Zhi Fang-all the wind», which is also known as «windy», etc. The author adopts the method of superficial acupuncture combined with traditional acupuncture for the treatment of cold and flu, which is reported as follows.

Objective

To observe the clinical efficacy of superficial acupuncture in treating cold.

Materials and Methods

Diagnostic criteria: Diagnosis was confirmed according to the guidelines for Chinese medicine diagnosis and treatment of common cold (2015 edition) [1]. General Information: Eighty patients whose outpatient clinic had already established the diagnosis of common cold were randomly divided into a treatment group and a control group. There were 40 cases in the treatment group, 21 males and 19 females; the minimum age was 12 years old and the maximum age was 53 years old; the shortest duration of illness was 1 day and the longest was 7 days. In the control group, there were 20 cases10 males and 10 females; the minimum age was 14 years old and the maximum age was 60 years old; the shortest duration of the disease was 1 day and the longest was 6 days. Comparison of the general information of the two groups, the difference was not statistically significant (p > 0.05), and was comparable.

1Treatment methods

2.1 Treatment group (1) Acupuncture points: Bilateral temple, bilateral Fengchi points, bilateral Waiguan points, bilateral Lieque points, bilateral Hegu points. (2) Operation method: Select a 0.30×40mm acupuncture needle to puncture each of the above acupoints with superficial acupuncture, a half-prick method. And immediately release the needle, so that a small amount of bleeding from the punctured acupoints, or the whole body sweating slightly is appropriate. After resting for 10 minutes, use the acupuncture needles to carry out traditional acupuncture at the above points, and after obtaining qi, leave the needles in place for 30 minutes and pull out the needles. Once a day, continuous acupuncture for 3 days.

2.2 Control group (1) Acupuncture points: Bilateral temple, bilateral Fengchi points, bilateral Waiguan points, bilateral Lieque points, bilateral Hegu points.(2) Operation method:0.30×40mm acupuncture needles were used for routine needling at each of the above points, and after Qi was obtained, the needles were left in place for 30 minutes and then removed. Once a day, continuous acupuncture for 3 days.

3 Efficacy determination:(1) Determination criteria of therapeutic effect [2]. Apparent effect: within 24 hours of treatment, systemic symptoms and local symptoms such as fever and runny nose disappear or basically disappear; Effective: within 24-48 hours, systemic and local symptoms such as fever and runny nose disappear or basically disappear; Ineffective: those who do not meet the above criteria are considered as ineffective.

4 Results and Discussion

(1) Results:

Table

Group	Sample	Obvious effect	Improve	Ineffective	Total effective rate
Treatment group	40	32	5	3	92.5%
Control group	40	21	12	7	82.5%

As shown in table above, the overall response rate in the treatment group was 92.5%, which was higher than the overall response rate of 82.5% (P < 0.05).

(2) Discussion:

The disease of cold is located in the lung, and the basic mechanism is that the guardian yang is curbed, the camp and guardian are out of harmony, and the lung is not declared and purged. Wind is the dominant evil, mixed with cold, heat, summer dampness and other six evils invade the body, resulting in symptoms such as nasal congestion and runny nose, chills and fever, headache, floating pulse, etc. The treatment of cold is mainly to dispel the wind and remove the external evils. Chinese medicine treatment mainly adopts the method of dispelling wind and removing external evils, harmonising Ying and Wei, so as to restore the organism to normal. Some studies have shown that [3] half-prick method has the effect of stimulating the meridian qi, and at the same time, due to the shallow and fast needling, low pain, can eliminate the nervousness of the patients at the first diagnosis, the author believes that the use of superficial acupuncture to make the patient slightly sweating or a small amount of bleeding, the method can stimulate the meridian qi, and at the same time to achieve the opening of the coupling, make external evil gas with sweat or blood, and the patient is recovered. To sum up, the clinical efficacy of the superficial acupuncture for treating cold is precise and effective, and it is also very simple and easy to operate, which is very worthwhile for us to promote and use in the clinic.

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COMPARATIVE STUDY ON THE CLINICAL EFFECTS OF ACUPUNCTURE AND MOXIBUSTION ON SUN'S ABDOMINAL AREA IN THE TREATMENT OF SUBACUTE INSOMNIA

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Abstract. Both of the two schemes have clinical effects on subacute insomnia, and there is no significant difference in the short-term efficacy. In terms of long-term efficacy and stability, conventional acupuncture combined with moxibustion in Sun's abdominal area has more prominent advantages in the treatment of subacute insomnia. The anxiety and depression associated with subacute insomnia were both improved, but the effect of conventional acupuncture combined with moxibustion in Sun's abdominal area was more stable.

Keyword: subacute insomnia; Acupuncture; Moxibustion; Ventral region of Sun

Subacute insomnia is a kind of sleep disorder between acute and chronic insomnia, which belongs to the category of insomnia. Generalized insomnia is a kind of subjective feeling that patients are not satisfied with sleep time and/or quality, insomnia symptoms varied, mainly manifested as difficulty in falling asleep, sleep maintenance difficulties, early awakening and daytime function damage [1] . The 2017 Chinese guidelines for the diagnosis and treatment of insomnia in adults were divided into short-term insomnia (course<3 months) and chronic insomnia (course ≥3 months) according to the course of the disease, the 2012 edition of the guidelines suggests that the concept of subacute insomnia is of great significance as it is a turning point from acute insomnia to chronic insomnia, the prevention and treatment of acute insomnia have not been paid enough attention to, and sub-acute insomnia is the critical period of the transition from acute insomnia to chronic insomnia, so the treatment of sub-acute insomnia is very important.

Objective

By the comparative study of clinical efficacy of moxibustion in Sun's abdominal area and acupuncture in Sun's abdominal area in the treatment of subacute insomnia, in order to provide more selectivity for the clinical treatment of subacute insomnia.

Materials and methods

76 patients who met the inclusion criteria of this subject were randomly divided into moxibustion group and acupuncture group, with 38 cases in each group. The moxibustion group was treated

with conventional acupuncture combined with abdominal moxibustion, and the acupuncture group was treated with conventional acupuncture combined with abdominal area. Both groups were treated once a day for 5 consecutive days, 2 days off, 7 days as a course of treatment, a total of 4 courses of treatment. PSQI scale, ISI scale, HAMA scale and HAMD scale were used before treatment, after treatment, 2 weeks (follow-up 1) and 4 weeks (follow-up 2), respectively.

Results and discussion

Before treatment, there was no statistical significance in the comparison of the general information such as sex, age, course of disease and PSQI, ISI, HAMA and HAMD scales of all recipients (P>0.05).Intra-group comparison was conducted between the two groups: PSQI, ISI, HAMA and HAMD scores of the two groups after treatment, at follow-up 1 and follow-up 2 were compared with those before treatment, and the differences were statistically significant (P<0.05).

As a result, it indicats that both treatments could improve insomnia symptoms and depression and anxiety accompanying insomnia in patients.

Compared the clinical efficacy of the two groups, the total effective rate of the moxibustion group was 91.4%, and that of the acupuncture group was 88.2%, with no statistical difference in the total effective rate (P>0.05).

Thus,it indicats that the two methods can treat subacute insomnia, and the difference in efficacy is not obvious.

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RESEARCH PROGRESS OF TRADITIONGAL CHINESE MEDICINE IN CARDIAC REHABILITATION OF HEART FAILURE

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Abstract. Heart failure is a cardiovascular syndrome that develops to a later stage of various heart diseases, leading to a serious reduction in the quality of life of patients and a generally poor prognosis. Its high prevalence, hospitalization and mortality rates are a major concern, and TCM plays an important role in cardiac rehabilitation for heart failure. This article reviews the research progress of traditional Chinese medicine in cardiac rehabilitation of heart failure.

Keywords: heart failure; cardiac rehabilitation; traditional Chinese medicine therapy

Heart failure (HF) can be divided into left heart failure, right heart failure and whole heart failure. All heart diseases can lead to heart failure, resulting in ventricular filling and/or ejection fraction impairment, and cardiac output cannot meet the metabolic needs of body tissues [1]. The main manifestations are different degrees of dyspnea, fatigue or edema. There is no name of heart failure in ancient Chinese medicine books, Wang Shuhe first proposed the name of «heart failure», and successive generations of doctors have explored a relatively complete set of traditional Chinese medicine therapy for the treatment of heart failure. The role and influence of medicine in cardiac rehabilitation on heart failure are summarized below.

1. Overview and role of cardiac rehabilitation

Modern cardiac rehabilitation (CR) refers to a comprehensive clinical assessment of the patient, and then the use of exercise therapy, psychological intervention, personal behavior to alleviate the patient's clinical symptoms, so as to improve the function of the cardiovascular system [2]. Traditional Chinese medicine has also played an important role.

2. Chinese medicine treats heart failure

2.1 Traditional Chinese medicine decoction

Wu [3] studied the effects of Zhenwu Decoction and Xuefu Zhuyu Decoction on inflammatory factors and cardiac function in patients with chronic heart failure by using random number table method, and concluded that it could reduce inflammatory response and improve cardiac function in patients. Zhao[4] found, by searching and including 122 literatures, that the treatment of chronic heart failure with yang-deficiency syndrome and water-generalized syndrome should mainly focus on

warming Yang to retract water, and Zhenwu decoction can be used to suppress RAAS system and improve heart failure. Or use Wuling Sanhua to reduce diuretic resistance and improve heart function. Ke[5]found that self-prepared Wenyang Yiqi Lishui Decoction combined with conventional western medicine in the treatment of heart-kidney Yang deficiency type chronic heart failure can better improve the index of heart failure. It can be seen from the above that the formulas of warming Yang and reinvigorating water and promoting blood circulation and removing blood stasis are widely used in the treatment of chronic heart failure and have significant effects.

2.2 Other therapies

After traditional Chinese exercise therapy, such as Taijiquan or Baduanjin, the exercise endurance of patients with heart failure is significantly enhanced[6]. Huang Jian[7] pointed out that Chinese medicine acupoint application combined with standard Western medicine treatment can further improve the clinical symptoms of patients with chronic systolic heart failure, improve the quality of life, and reduce the number of hospitalizations. There have been many researches on the treatment of heart failure by traditional Chinese medicine. With the development of traditional Chinese medicine, more and more clinical patients believe and take traditional Chinese medicine.

3. Summaries

Cardiac rehabilitation is a complex multi-disciplinary, multi-domain intervention strategy that includes not only the medical aspect, but also the social, psychological and behavioral aspects of the patient. Chinese medicine has a positive impact on the treatment of heart failure. In order to make the quality of life of patients with heart failure higher, we can develop a set of traditional Chinese and western medicine treatment in line with China's national conditions, that is, on the basis of western medicine treatment combined with traditional Chinese medicine treatment, according to the specific situation of each patient, tailored a set of suitable for their own model, and strive to reduce the pain for patients with heart failure, prolong life.

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RESEARCH PROGRESS OF ACUPUNCTURE TREATMENT OF POSTHERPETIC NEURALGIA

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Abstract. Traditional Chinese acupuncture and moxibustion has a good effect in the treatment of postherpetic neuralgia. The use of acupuncture, moxibustion and other external treatment has obvious advantages in relieving pain and improving immunity. This article summarizes the clinical acupuncture treatment of postherpetic neuralgia in order to provide guidance for clinical promotion and application.

Keywords: Acupuncture; Moxibustion; Postherpetic neuralgia; Review

Herpes zoster is an acute skin disease caused by varicella-zoster virus infection, and the pain lasting for more than one month after healing is called postherpetic neuralgia (PHN), which is one of the most common complications of herpes zoster [1]. It is manifested as paroxysmal or continuous burning, needling, lightning, knife cutting pain, etc., which is characterized by repeated attacks, bringing great pain to patients' physical and mental health and life. Western medicine mainly focuses on drug treatment, but there are many adverse reactions. In recent years, acupuncture therapy has been clinically effective in relieving pain with few side effects, and has also played an important role in the treatment of PHN[2], as summarized below.

1. Point Selection

The selection of acupoints is the key to play the curative effect of acupuncture and moxibustion. According to the theory of meridians and acupoints, where the acupoints are, where the indications are, stimulating the acupoints can dredge the meridians, harmonize qi and blood, and achieve the effect of no pain in general rules. Among various acupuncture and moxibustion treatment methods, Ashi point and Jiaji point are the most used acupoints and have achieved good results [3].

2. Treatment

2.1 Acupuncture therapy

Acupuncture is currently recognized as an effective therapy for the prevention and treatment of pain, and its analgesic mechanism is mainly manifested in the effects of acupuncture on the central nervous system, peripheral nerves and central neurotransmitters [4]. Jiang et al. [5] treated Jiaji point with oblique acupuncture combined with local circumstabbing, and the control group was treated with western medicine. After 1 month of treatment, the clinical efficacy and visual analog scale (VAS) score of the two groups were compared. The results showed that the total effective rate of the treatment group was significantly higher than that of the control group, and the VAS score of the treatment group was significantly lower than that of the control group, the difference was statistically significant.

2.2 Moxibustion therapy

Moxibustion is one of the commonly used nursing techniques in traditional Chinese medicine. It has the effects of warming the channels and dispelling cold, regulating qi and blood, warming the channels and meridians, tonifying deficiency and draining excess, and promoting the body to restore the balance of Yin and Yang, and has also achieved good results in alleviating the pain intensity, relieving anxiety and improving the quality of life of patients with postherpetic neuralgia [6]. Cao et al. [7] gave heat-sensitive moxibustion treatment to patients with postherpetic neuralgia. Before treatment, mild moxibustion was carried out on the skin parts of the patient, such as the acupoint of the spine, pain and subcutaneous induration, to identify the patient's heat-sensitive points, and then mild moxibustion was carried out on the two points with the highest heat-sensitivity. After 4 weeks of intervention, the pain degree of the patient was reduced and the systemic inflammatory response was suppressed.

3. Discussion

Acupuncture treatment of postherpetic neuralgia has a variety of methods, less adverse reactions, long-term curative effect is stable, can effectively relieve the pain symptoms of patients, and achieve the effect of improving the quality of life of patients as a whole. However, there are still some shortcomings: In the observation of clinical studies, less attention has been paid to the improvement of anxiety and depression after treatment; Many clinical studies have short follow-up periods or no follow-up at all. In the future clinical research, the above problems can be further enriched acupuncture treatment of herpes zoster research.

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RESEARCH PROGRESS OF ACUPUNCTURE AND MOXIBUSTION ON DIABETES PERIPHERAL NEUROPATHY

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Abstract. diabetes peripheral neuropathy (DPN) is one of the main chronic complications of diabetes, with a high prevalence and disability rate. Acupuncture and moxibustion can improve the symptoms of DPN patients and increase nerve conduction velocity. By analyzing the literature on acupuncture and moxibustion treatment of DPN in recent years, this paper expounds the progress of acupuncture and moxibustion treatment of DPN, and provides a basis for the clinical application and in-depth research of acupuncture and moxibustion treatment of DPN.

Keywords: Acupuncture and moxibustion; Diabetes peripheral neuropathy; Mechanism; Research progress

Diabetes peripheral neuropathy (DPN) is one of the common chronic complications of diabetes, which can cause sensory and Motor nerve damage in lower limbs, resulting in Diabetic foot, even requiring amputation [1]. Faced with the huge medical burden, it is urgent to find positive and effective methods to prevent and treat DPN. The research progress of acupuncture and moxibustion in treating DPN in recent years is summarized as follows.

1. DPN in Traditional Chinese medicine

DPN can be classified into «muscle arthralgia», «pulse arthralgia», and other categories in Traditional Chinese Medicine. The Chinese Medicine Clinical Diagnosis and Treatment Guide for Diabetes Peripheral Neuropathy (2016 Edition) [2] divides DPN into six types, and it points out that Qi deficiency, Yin deficiency and Yang deficiency are the basis.

2. Treatment

2.1 Acupuncture therapy

Acupuncture has the functions of harmonizing the viscera, regulating yin and yang, and promoting the recovery of qi and eliminating pathogenic factors. Acupuncture can play a role in overall regulation and dredging of local meridians, in line with the pathogenesis of DPN.

Gao Yu [3] randomly divided 90 patients with DPN into two groups. The observation group consisted of 45 patients who received acupuncture treatment on the basis of the control group. The results showed that the total effective rate of the observation group was 86.67%, while the total effective rate of the control group was 71.11%. The observation group had a better therapeutic effect than the control group ($P<0.05$). Chang et al. [4] randomly divided 82 patients with DPN into two groups. Forty-one patients in the treatment group were treated with wrist ankle acupuncture on the basis of the control group. Results: After treatment, the scores of TCM syndromes in the treatment group were lower than those in the control group ($P<0.05$), and the motor conduction velocity and sensory conduction velocity of the common peroneal nerve and Median nerve in the treatment group were significantly higher than those in the control group ($P<0.05$).

2.2 Moxibustion therapy

Moxibustion has been used to prevent and treat diseases for thousands of years. In recent years, moxibustion therapy has been increasingly used in the treatment of DPN and has achieved satisfactory clinical efficacy.

Lan et al. [5] randomly divided 100 patients with DPN limb pain into two groups. The experimental group consisted of 50 patients receiving moxibustion on ST40 and ST36. Result: After treatment, the

TCSS and pain visual analogue score (VAS) of the experimental group were lower than those of the control group (P<0.05), indicating that moxibustion can alleviate the symptoms of limb pain in DPN and improve the quality of life of patients. Ling et al. [6] randomly divided 130 patients with DPN into two groups. The observation group received moxibustion treatment in combination with the control group. The results showed that the total effective rate of the observation group was 98.46%, while the total effective rate of the control group was 89.23%. The therapeutic effect of the observation group was better than that of the control group (P<0.05).

3. Discussion

DPN causes tremendous pain to patients, and early diagnosis and effective treatment are crucial. Acupuncture and moxibustion and moxibustion therapy has the advantages of syndrome differentiation, treatment and comprehensive regulation for DPN treatment. However, at present, there are still some problems in the research of acupuncture and moxibustion therapy for DPN. Altogether, we still need to conduct further in-depth research on the treatment of DPN with traditional Chinese medicine external treatment methods, in order to provide patients with safer and more reliable treatment methods.

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MECHANISM AND RESEARCH PROGRESS OF CHINESE MEDICINE REGULATING MIRNA IN TREATING DIABETIC FOOT ULCER

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Abstract. Diabetic foot ulcer (DFU) is one of the most common complications of diabetes. Microribonucleic acid (miRNA) plays an important role in all stages of ulcer repair in Diabetic foot. Traditional Chinese Medicine has unique advantages in treating DFU. This article reviewed the mechanism of miRNA in Diabetic foot ulcer at different stages and the research progress of Chinese medicine intervention in DFU by regulating miRNA, in order to provide theoretical basis at the gene level for Chinese medicine treatment of DFU.

Keywords: Diabetic foot; Diabetic foot ulcer; Microribonucleic acid; Traditional Chinese Medicine; Mechanism of action; Research progress

Ulcer of Diabetic foot is often induced by trauma, pressure injury, etc. Due to the patient's local ischemia, neuropathy, with or without infection and other factors, the skin and deep tissue far from the ankle joint of the patient may fester or even amputate. At present, the research on Diabetic foot ulcer has entered the gene level.

1. The mechanism of miRNA in Diabetic foot ulcer

The wound healing of DFU patients is a complex physiological process involving multiple cell and tissue factors, mainly including the inflammatory phase, proliferative phase, and remodeling phase. Research has found that miRNAs play an important role in all three stages of the healing process.

2.1 Inflammatory phase

Inflammatory reaction stage is the initial stage of wound healing, and it is also the key stage that determines the quality of wound healing. Cai et al.'s study showed that miRNA-155 can regulate the polarization state of macrophages, with high expression when macrophages polarize from anti-inflammatory M2 type to pro-inflammatory M1 type, and low expression when M1 type polarizes to M2 type [1]. MiRNA regulates the phenotype of macrophages, balances the expression of pro-inflammatory and anti-inflammatory factors on the wound surface, thereby protecting the wound and facilitating the smooth entry of the wound into the proliferation phase.

2.2 Proliferation period

The proliferation period usually occurs 3 days after the wound injury, which is an important period in wound repair. MiRNA-21, as a recognized excellent wound promoter, plays a crucial role in wound repair by stimulating epithelial regeneration. And miRNA-27b can directly enhance the function of bone marrow-derived angiogenic cells (BMAC) and promote vascular proliferation [2]. In conclusion, a variety of miRNAs accelerate wound healing by promoting the growth and proliferation of fibroblasts, Keratinocyte and vascular endothelial cells.

2.3 Reshaping period

The remodeling period is the longest period of wound healing, during which the miRNA-29 family plays an important role. Research has shown that miRNA-29 can directly inhibit the deposition of collagen 1 (Col-1), thereby preventing the formation of fibrous scars and promoting wound skin healing. In animal wound models, the application of miRNA-29b in collagen scaffolds significantly increased the number of collagen fibers I and III, which may reduce wound contraction and accelerate wound repair [3].

3 Components and Extracts of Traditional Chinese Medicine Intervenes Diabetic foot Ulcer by Regulating miRNA

Research has found that the extracts of Panax notoginseng, Panax notoginseng saponins, and Astragalus membranaceus saponins upregulate the expression of miRNA-146a, activate IRAKI and TRAF6, inhibit the TLR signaling pathway, reduce the occurrence of inflammatory reactions, improve wound microcirculation, and accelerate wound repair [4]. The Angelica sinensis blood enriching composite microcapsule is composed of Ferulic acid, the main component of Angelica sinensis, and astragaloside A, the main component of astragalus μ G/mL Angelica sinensis blood nourishing composite microcapsules can upregulate the expression of miRNA-21, promote angiogenesis and accelerate wound healing through the JAK2/STAT3 signaling pathway [5].

4 Discussion

Traditional Chinese medicine has a definite therapeutic effect on treating DFU by regulating miRNA, but its mechanism, especially the traditional Chinese medicine compound formula, is not completely clear. In the future, researchers hope to continue exploring using more new technologies to elucidate the regulatory mechanism of traditional Chinese medicine and provide more theoretical support for the treatment of DFU with traditional Chinese medicine.

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BAYESIAN NETWORK META-ANALYSIS OF DIFFERENT ACUPUNCTURE THERAPIES IN THE TREATMENT OF PRESSURE INJURY

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Abstract. Thirty-four randomized controlled trials were included. The pairwise meta-analysis results suggested that the effectiveness of acupuncture for PI healing was significantly greater than standard wound care. Network meta-analysis revealed that heat-sensitive moxibustion plus standard wound care ranked the best regarding clinical response rate and PUSH score reduction. Electroacupuncture plus standard wound care ranked best in terms of reduced VAS scores. Thus, acupuncture is an effective and safe strategy for treating PI. Heat-sensitive moxibustion combined with standard wound care was the most effective acupuncture-related technique for PI healing; electroacupuncture combined with standard wound care was the best acupuncture treatment for relieving PI-related pain.

Keywords: acupuncture, network meta-analysis, pressure injury, pressure ulcer, systematic revie

Pressure injury (PI) is a common skin disease and the most frequent complication reported by patients admitted to the intensive care unit. As reported, PI affects tens of millions worldwide, and approximately 1–3 million people in the United States annually. Unfortunately, PI management remains challenging due to the high costs of existing therapies, frequent complex dosing, and side effects. Acupuncture therapy has the advantages of rapid onset and few side effects, which have been widely used in treating PI. However, a comprehensive overview is lacking to examine their efficacy and safety in PI. Moreover, various treatments related to acupuncture may have different therapeutic effects. Therefore, this systematic review and network meta-analysis (NMA) was conducted to explore the above inconsistencies and determine the optimal acupuncture for PI.

Objective

To assess the efficacy of acupuncture in treating pressure injury (PI) and identify the best acupuncture treatment.

Materials and methods

We searched electronic databases, clinical trial registration platforms, lists of references, and gray literature. Outcome indicators included the clinical response rate, Pressure Ulcer Scale for Healing (PUSH), and visual analog scale (VAS). Revman 5.4 was used for risk of bias assessment. Stata software was used for pairwise meta-analysis. The "gemtc" package of R software was used for Bayesian NMA.

Results and discussion

After retrieval, 34 RCTs, including 2,391 patients, were eligible for this study. Six acupuncture techniques (manual acupuncture, electroacupuncture, moxibustion, heat-sensitive moxibustion, fire needling, and medicated thread moxibustion) were involved.

The pairwise meta-analysis results suggested that the efficacy of all acupuncture-related techniques plus standard wound care for PI healing was significantly greater than that of standard wound care alone. The NMA results for the clinical response rate showed that all acupuncture-related techniques were superior to standard wound care, except for medicated thread moxibustion plus standard wound care; In addition to fire needling, all acupuncture-related therapies were superior to standard wound care in reducing PUSH scores; In addition to manual acupuncture, the remaining four treatments were superior to standard wound care in reducing VAS scores. Probability ranking revealed that heat-sensitive moxibustion plus standard wound care ranked the best regarding clinical response rate and PUSH score reduction; Electroacupuncture plus standard wound care ranked best regarding reduced VAS scores.

In conclusion, our study suggests acupuncture is an effective and safe strategy for treating PI. Heat-sensitive moxibustion combined with standard wound care was the most effective acupuncture-related technique in promoting PI healing. Moreover, electroacupuncture with standard wound care was the best acupuncture treatment for relieving PI-related pain. However, owing to the limitations of our study experienced, these findings should be interpreted with caution.

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RESEARCH PROGRESS ON THE MECHANISM OF ELECTROACUPUNCTURE IN TREATING TYPE 2 DIABETES MELLITUS

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Abstract. Type 2 diabetes mellitus (T2DM) is a comprehensive metabolic disease,and its pathogenesis is closely related to genetic inheritance, environmental factors,insulin secretion defects,abnormal insulin signal transduction,insulin resistance and environmental disorders in human body. Electricity for type 2 diabetes has exact curative effect,but its mechanism is still not very clear,including at home and abroad studies have found that by adjusting the neuroendocrine,protection of the pancreas, activate the insulin signaling pathways, improve insulin resistance and slow complications such as a variety of channels to achieve the goal of treatment for type 2 diabetes,but the related clinical study has clinical research and the quality is low,In the future,multi-center,large-sample randomized controlled clinical studies should be carried out to provide stronger evidence-based medical evidence for electroacupuncture in the treatment of type 2 diabetes and its complications.

Keywords: electroacupuncture, type 2 diabetes mellitus, mechanism of action

Diabetes mellitus is a serious long-term chronic disease characterized by elevated blood glucose and abnormal glucose tolerance.According to the statistics,the number of people suffering from diabetes in the world is as high as 463 million,with a prevalence rate of 9.3%,and this figure may be as high as 10.9% by 2045 [1]. T2DM accounts for more than 90%,and China ranks first in the number of diabetes patients [2]. So far,a variety of methods have been developed and applied in the treatment of T2DM. With the expansion of clinical indications of acupuncture,electroacupuncture has become a popular conservative treatment for T2DM, but its mechanism of action remains unclear.The purpose of this study was to review the research progress at home and abroad to explore the possible mechanism of electroacupuncture in the treatment of T2DM, and to put forward my own ideas and views on the future research of electroacupuncture in the treatment of T2DM.

Objective

To study the related literature on the effect of electroacupuncture on the pathogenesis of T2DM,and to provide a new scientific basis for the clinical application of electroacupuncture in the prevention and treatment of T2DM.

Materials and methods

The first author used»electroacupuncture, type 2 diabetes mellitus, T2DM, diabetes»as the search terms to search the literatures in PubMed, CNQI, Wanfang Data and CBM database from 2012 to 2022.Summarize and analyze the basic experimental results of acupuncture treatment of type 2 diabetes mellitus through in-depth reading.

Results and discussion

The curative effect of electroacupuncture on T2DM is clear,and its influence on T2DM is multi-factor,which can improve the physical health status of diabetic patients from multiple levels.Mechanism of the current research mainly embarks from the occurrence and development of the disease pathological process,focusing on 1.Regulation of nerve,endocrine and viscera by electricity; 2.Protective effect of electricity on β cells; 3.Electrical regulation of insulin signal transduction pathway; 4.Electroacupuncture improves insulin resistance[3]; 5.Electroacupuncture in alleviating complications in patients with T2DM [4], and tries to from the centers of the brain neural regulation and biofeedback to explain the curative participated in the pancreas and the deployment of the sympathetic nerve,the sugar to improve the regulation of lipid metabolism and insulin resistance.

The current research status is lack of electric acupuncture treatment of T2DM high quality randomized controlled trials research,make the curative lack of quality in the clinical application of evidence which is rather limited,researchers may be able to look from the laboratory to clinical,moving

from animals to human body,further validation will reduce the patients' blood sugar,control of body quality and the curative effect of regulate glucolipid metabolism,To explore the mechanism of electroacupuncture in the treatment of T2DM. High-quality studies with large samples require more economic and human costs,and more scientific research institutions and clinical centers need to make joint efforts to set up multi-center randomized controlled studies and develop complete experimental protocols.Now,blinded and randomly assigned to hide implementation is not complete,lack of concrete on the basis of sample size estimation, intervention operation details,lack of unified specification is clinical research problems to be solved in strengthening statistics since experimental plan formulation of co-operation is more advantageous to study,and can get the reliable results.

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THA APPLICATION PROSPECTS OF DIAGNOSIS AND TREATMENT BASED ON ARTIFICIAL INTELLIGENCE IN THE REHABILITATION OF PATIENTS WITH MOVEMENT DISORDERS

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Abstract. With the continuous development of science and technology and the continuous progress of society, artificial intelligence gradually enters people's field of vision and is used in communication, medical care, biological science and so on. The number of patients with dyskinesia is increasing rapidly year by year. At present, the application of artificial intelligence technology in the field of rehabilitation of dyskinesia has been fully recognized. This technology has a good clinical effect in assisting and diagnosing diseases such as dyskinesia, which can effectively improve the ability of patients to exercise and live independently. In the future, artificial intelligence technology can be widely used in medical and other fields.

Keywords: atificial intelligence, dyskinesia, Clinical Treatment

Objective

Based on the prospect research in this field, this article provides ideas for artificial intelligence technology as a common complementary and alternative clinical treatment method for patients with motor disorders.

Materials and methods

Seven databases, including China Journal full-text Database (CNKI), Wanfang academic Journal full-text Database (Wan fang), VIP Chinese Sci-tech Journals Database (VIP), China Biomedical Literature Database (Sino Med), PubMed, Cochrane Library and Embase database, were searched with the keywords of «atificial intelligence», «AND», «dyskinesia», «OR», «motor dysfunction» and corresponding Chinese. The search time limit was before July 2023. Included articles were summarized and analyzed.

Results

Movement disorders have a significant impact on patients' high-quality living ability and bring a heavy economic burden to their families and society. The rehabilitation training for general patients with motor disorders usually requires a significant

investment of human resources, and the process is monotonous and difficult, resulting in poor patient compliance. Many studies have shown that artificial intelligence, as the most cutting-edge technology in the future, is one of the complementary and alternative treatment technologies. It can not only effectively improve the condition, but also reduce the waste of human resources. Artificial intelligence is a hot research and application topic in the field of rehabilitation for motor disorders.

The feasibility and effectiveness of applying artificial intelligence technology to rehabilitation of motor disorders have been confirmed, but related research is still in its infancy and there are still some problems. For example, artificial intelligence technology places a heavy economic burden on ordinary households and is difficult to bear; Artificial intelligence technology is suitable for patients with different types of movement disorders, which poses a challenge to current scientific and technological advancements; At present, a large amount of clinical data is still needed to prove the safety of artificial intelligence and avoid exacerbating the condition of patients with motor disorders; And how artificial intelligence technology can gain patient recognition and be applied in daily life are all challenges that artificial intelligence needs to face in the future.

Discussion

It is expected that with the continuous development of artificial intelligence technology and the emergence of other high-tech technologies in the future, artificial intelligence technology will play a more significant advantageous role in the field of rehabilitation for motor disorders. In the era of artificial intelligence, the development of intelligent devices and systems that integrate rehabilitation assessment and artificial intelligence rehabilitation treatment for motor disorders without relying on medical staff is just around the corner.

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RESEARCH PROGRESS OF TRADITIONAL CHINESE MEDICINE IN INTERVENTION OF ALZHEIMER'S DISEASE BASED ON AMYLOIDB-PEPTIDE

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Abstract. Alzheimer's disease (AD) is a progressively developing neurodegenerative disease with an insidious onset. Clinically characterized by global dementia manifestations such as memory impairment, impaired visual-spatial skills, executive dysfunction, and personality and behavioral changes. The pathogenesis of AD is complex, and the widely accepted pathogenesis is the Amyloidβ-peptide cascade hypothesis. Studies have found that traditional Chinese medicine and its active ingredients have a significant effect on the prevention and treatment of Alzheimer's disease by inhibiting Amyloidβ-peptide deposition. Starting from the pathogenesis of AD, immunological drugs targeting Aβ protein have gradually become a hot spot in development and research. Therefore, this article mainly discusses the recent research progress of traditional Chinese medicine intervention in Alzheimer's disease based on Amyloidβ-peptide, so as to provide reference for further in-depth research and clinical applications of traditional Chinese medicine intervention in Alzheimer's disease.

Keywords: Alzheimer's disease, Amyloidβ-peptide, Traditional Chinese medicine

Objective

To explore the role and mechanism of traditional Chinese medicine in the treatment of Alzheimer's disease (AD), and provide theoretical help for the clinical treatment of Alzheimer's disease.

Materials and methods

Based on the academic journals indexed by five academic platforms, namely China Academic Journals Full-text Database (CNKI), Chinese Science and Technology Journals Database (VIP), China Biomedical Literature Database (CBM), PubMed and Web of Science (WOS), from January 1, 2018 to June 31, 2023, Chinese and English literature on the treatment of Alzheimer's disease targeting Aβ protein in the past five years was

searched, and the subject terms were traditional Chinese medicine, Alzheimer's disease, Amyloidβ-peptide.

Results and discussion

Single Chinese herbs

The traditional Chinese medicine Ganoderma lucidum is the only drug included in the «Compendium of Materia Medica» that enters the five meridians, which has a tonic effect on the heart, liver, spleen, lungs, kidneys and other five organs[1]. Relevant studies have found that Ganoderma lucidum spores can significantly enhance the learning and memory of streptocin-induced sporadic AD model rats, which reduces β the expression of amyloid β-protein (Aβ) in the hippocampus by regulating the BDNF-TrkB signaling pathway and improving learning and memory impairment in rats. The traditional Chinese medicine Yuanzhi is the dried root of the plant Yuanzhi in the family Yuanzhi. Studies have shown that saponins extracted from Yuanzhi can significantly reduce Aβ1-40 deposition, and Yuanzhi intervention AD is mainly by reducing Tau protein superphosphorylation, anti-Aβ protein deposition, anti-inflammatory, antioxidant and anti-apoptosis mechanisms[2].

Pair of Chinese herbs

Both calamus and Yuanzhi have pharmacological effects such as anti-inflammatory, antioxidant and memory-improving effects. Studies have shown that calamus-Yuanzhi drug pair can reduce Aβ production and inhibit the expression of Tau protein to improve AD symptoms[3]. In addition, both the nootropic kernel-Schisandra pair and the calamus-Chuanxiong drug pair can improve AD by regulating the level of Aβ protein aggregation.

Traditional Chinese medicine compound preparations

Black Xiaoyao is composed of cooked land, chaihu, angelica, white peony, white art, poria, licorice, and mint. Through the prevention and treatment strategy of «three yin and modulation» of liver, spleen and kidney, it can inhibit Tau protein superphosphorylation, promote Aβ clearance to reduce Aβ deposition, inhibit microglial activation, and reduce inflammatory response[4]. In addition, Sanwei Cardamom Soup (Tibetan medicine), Brain-Heart Tong Capsules, and Tonic Yang Huanwu Tang can also intervene in AD by inhibiting the accumulation of Aβ protein in the brain.

In summary, most of the clinical treatment methods of Alzheimer's disease use a single treatment. Commonly used clinical drugs are mainly single-target drugs for symptomatic treatment, such as tacrin, donepezil hydrochloride, ristigamine, galantamine, etc. Compared with single-target drugs, under the guidance of TCM theory, TCM intervention AD has the advantages of multiple targets, multiple pathways, stable efficacy, and small toxic side effects. This article reviews the role and mechanism of traditional Chinese medicine in the treatment of Alzheimer's disease, hoping to provide a certain reference for the prevention and treatment of AD.

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EFFICACY AND SAFETY OF PHOTOBIOMODULATION IN THE THERAPY OF ACUTE TRAUMATIC BRAIN INJURY: A META-ANALYSIS

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Abstract. Photobiomodulation is a new technology to treat traumatic brain injury, and its curative effect is closely related to the wavelength, the first administration time and the daily treatment frequency. This paper makes a meta-analysis of the current progress in the application of photobiomodulation technology in the treatment of acute traumatic brain injury, in order to clarify the safety and feasibility of this therapy and find the optimal treatment parameters.

Keywords: photobiomodulation, acute traumatic brain injury, meta-analysis

Traumatic craniocerebral injury (TBI) is a disease in which violence directly or indirectly acts on the head, resulting in the deformation of the skull and brain structures after impact, causing temporary or permanent loss of consciousness, memory loss, cognitive and neurological dysfunction and other symptoms.

Photobiomodulation (PBM), also known as low-energy laser therapy, is a therapeutic method that uses low-energy laser to irradiate tissues at a specific wavelength, activate cytochrome c oxidase (CCO), enhance mitochondrial function, and improve tissue blood flow and energy metabolism. It has the advantages of non-invasive, safe and convenient use in intervening diseases such as central nervous system (CNS) injury, and has been applied to the treatment of traumatic brain injury. This paper systematically summarized the existing evidence of the value of PBM in improving the outcome of acute TBI, and made a meta-analysis of the preclinical evidence of neurological severity score (NSS) and lesion size in TBI animal models.

Objective

Based on the frontier research in this field, this paper provides ideas for the follow-up exploration and application of photobiomodulation (PBM) as a treatment for acute traumatic brain injury (TBI).

Methods

Five databases, including Pubmed, Web of Science, Elsevier science Direct, China Journal full-text Database (CNKI), Wanfang academic Journal full-text Database (Wan fang), were searched with the keywords of «photobiomodulation», «AND», «acute traumatic brain injury», «OR», «traumatic brain injury» and corresponding Chinese. The search time limit was before February 2023. Included articles were summarized and analyzed.

Results and Discussion

Eighteen randomized controlled trials were included: Seventeen pre-clinical studies of in vivo animal models and one clinical study in human patients.For pre-clinical studies, meta-analysis for NSS and lesion size were found to favor intervention versus control. Subgroup analysis based on PBM parameter variables for these outcomes was performed. Favorable parameters were identified as: wavelengths in the region of 665 nm and 810 nm; time to first administration of PBM ≤4 h; total number of daily treatments ≤3. No differences were identified between pulsed and continuous wave modes or energy delivery. The available human study supports safety and feasibility of PBM in acute moderate TBI.

PBM can antiapoptotic, anti-inflammatory, and pro-proliferative, and significantly modulate of cellular metabolism, which can improve the survival rate of patients with TBI and will be promoted to playing a more significant advantageous role in the field of TBI therapy.

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RESEARCH PROGRESS ON THE GUT-BRAIN AXIS AND ALZHEIMER'S DISEASE AND TRADITIONAL CHINESE MEDICINE

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Abstract. As the most common neurodegenerative disease, Alzheimer's disease (AD) has become one of the major public health problems worldwide and has received increasing attention. At present, there is no cure for the treatment of AD, mainly to improve symptoms, delay the process, and prevention. Studies have found that there is a high degree of bidirectional communication between the brain and intestine, and both the neuroendocrine and nervous systems are significantly affected by microorganisms. The research on AD in traditional Chinese medicine has also made new progress. This article describes the latest developments between the intestinal-brain axis and AD.

Keywords: Gut-brain axis; Alzheimer 's; Chinese medicine; Review, Intestinal microbes

As the most common cause of dementia, AD accounts for about 50%-80% of dementia cases, especially with the continuous acceleration of aging, the number of AD patients is increasing, and it is expected that the number of AD patients will more than triple worldwide by 2050, bringing great pressure to society and families.With the deepening of the research on AD in traditional Chinese medicine, the international recognition of AD in the treatment of AD by traditional Chinese medicine is increasing, and the treatment of AD by the intestine-brain axis has long been reflected in the theory and treatment methods of traditional Chinese medicine, whether it is from the differentiation of internal organs or meridians. Therefore, it is necessary to treat AD through traditional Chinese medicine.

Research progress in traditional Chinese medicine

1.1 Rhodiola, a plant in the family Sedum family, cold, sweet; It has the effect of replenishing qi and clearing the lungs, nourishing the mind, astringent, stopping bleeding, and eliminating swelling and stasis.Rhodiola reduces the deposition of Aβ 1-42 regions, while also reducing microglia activation and the production of pro-inflammatory factors (IL-1β, IL-6 and TNF-α). It can be seen that the effectiveness of SAL in the treatment of AD cannot be underestimated, it improves the intestinal flora by regulating the gut-brain axis, further reducing the deposition of Aß and reducing inflammatory damage to treat AD

1.2 Skullcap, a genus of skullcap in the family Lamiaceae, cold and bitter; It belongs to the lungs, gallbladder, spleen, large intestine and small intestine, and has the functions of clearing heat and dampness, ephemeral fire and detoxification, stopping bleeding and tranquilizing the fetus, and is the most common medicine for clearing heat and dampness in clinical practice.Baicalein in the treatment of AD is achieved by increasing the activity of intestinal microorganisms and modulating the inflammatory mechanism of the associated intestinal flora to further reduce AD.

1.3Coptis chinensis Franch., Coptis deltoidea C. Y. Cheng et Hsiao or Coptis teeta Wall., cold and bitter taste; Guixin, liver, stomach, large intestine, four meridians, with ephemeral fire, dampness, detoxification, insecticidal effects. Modern pharmacological studies have found that Coptis has various effects such as anti-pathogen, anti-inflammatory, sedative hypnosis, and blood sugar regulation.It can effectively inhibit inflammatory response, regulate circulatory metabolism, enhance microglial phagocytosis, improve Aβ deposition, and also activate adenosine 1′-monophosphate (AMP) activated protein kinase/sirtuin 1 (AMPK/Sirt2019) signaling pathway, inhibit mTOR signaling pathway, increase the growth of hippocampal nerves in the brain, and improve memory function in AD mice.

In addition to the above-mentioned traditional Chinese medicine can be mediated by the intestinal brain axis, the ginsenoside Rg1 component in ginseng plays an important role in the prevention and treatment of AD, which can repair dendrites, axons and microglia and astrocytes-related inflammation by regulating intestinal microorganisms, thereby alleviating the manifestations of AD in various periods of pathogenesis and improving AD symptoms [40]. Poria as a moist water YE has been found to be able to inhibit β secretase and γ secretase and increase Aβ phagocytosis and clearance to reduce Aβ deposition. At the same time, it can also regulate the probiotics in the intestinal flora and inhibit pathogenic bacteria at the same time, thereby reversing the dysfunction of metabolites such as BAs, thereby interacting with the brain and reducing AD symptoms.

Summary and discussion

Multi-faceted and multi-angle treatment of AD: Gut-brain axis treatment AD is not only a single regulation of intestinal flora, but also has the characteristics of multiple pathways, such as

regulating intestinal flora, gut-brain interaction signaling pathway, and playing endocrine role, with the characteristics of multi-mechanism and multi-regulation, which has a role in multiple pathogenesis of AD, so it is very necessary to study the gut-brain axis in AD.

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CLINICAL OBSERVATION ON SUN'S SCALP ACUPUNCTURE AND ABDOMINAL ACUPUNCTURE COMBINED WITH DONEPEZIL HYDROCHLORIDE IN THE TREATMENT OF ALZHEIMER'S DISEASE

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Abstract. This article mainly compares the clinical efficacy of electroacupuncture combined with Donepezil hydrochloride and Donepezil hydrochloride alone in the treatment of Alzheimer's disease (AD). Before and after treatment, the mini mental state examination scale, AD rating scale cognitive part and Activities of daily living scale were used to assess. The results showed that electroacupuncture combined with Donepezil hydrochloride could effectively improve the learning and memory cognitive ability and daily living ability of AD patients, which was better than that of Donepezil hydrochloride alone.

Keywords: Alzheimer's disease; Transcranial repeated acupuncture stimulation therapy; Electroacupuncture; Scalps; Abdominal needle; Randomized controlled study

Alzheimer's disease (AD) is a complex progressive neurodegenerative disease. Its main symptoms include memory loss, cognitive dysfunction, and difficulties in thinking, language, and problem solving[1]. Transcranial repeated acupuncture stimulation is often used in Degenerative disease[2-3]. Sun's abdominal acupuncture refers to the location of cerebral cortex, and regulates the corresponding parts of the brain by acupuncture at specific points on the abdomen. It is clinically effective for improving cognitive function[4-5].

Objective

This study is to explore the effect of acupuncture combined with Donepezil hydrochloride on mild to moderate AD.

Materials and methods

After repeated transcranial acupuncture stimulation of the «emotional area» in the observation group, the left and right Shencong points, the «emotional area», the «abdominal area I», and the eight abdominal areas were connected to the electroacupuncture apparatus, with a frequency of 10Hz/50Hz, a density wave, and a current intensity of 0.5~5.0mA. The remaining points (namely Baihui point, Glabella, Shenting point, Fengchi point, Taixi point, Xuanzhong point, and Zusanli) were retained for 30min/time, once a day, four weeks as a course of treatment, and two consecutive courses of treatment. Donepezil hydrochloride once a day/5mg, taken orally before sleep, 4 weeks as a course of treatment, 2 consecutive courses of treatment. The control group only took Donepezil hydrochloride orally, and the specific usage and dosage were referred to the observation group. Before and after treatment, the mini mental state examination scale, AD rating scale cognitive part and Activities of daily living scale were used to assess.

Results and discussion

The observation group had more patients with significant therapeutic effects than the control group, more patients with improved therapeutic effects than the control group, and fewer patients with ineffective effects than the control group. The total effective rate was higher than the control group, and the difference between the two groups was statistically significant ($P<0.05$). After treatment, the scores of patients in the ADAS Log control group and the observation group decreased compared to before treatment, and the difference between the two groups was statistically significant ($P<0.05$), and the scores of the observation group were lower

than those of the control group. After treatment, the scores of patients in the ADL control group and the observation group increased compared to before treatment, and the difference between the two groups was statistically significant (P<0.05), and the scores of the observation group were higher than those of the control group. As a result, Electroacupuncture combined with Donepezil hydrochloride can effectively improve the cognitive ability of learning and memory and the ability of daily living of AD patients, which is superior to Donepezil hydrochloride alone.

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RESEARCH PROGRESS OF CENTELLA ASIATICA IN OSTEOARTHRITIS

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Abstract. With the acceleration of the aging of society, the elderly population base continues to increase, osteoarthritis as a degenerative joint disease and as the most common type of arthritis, its incidence continues to increase, bringing great pressure to society and families, seriously affecting the quality of life of patients. As a medicine of water and dampness, Asiaticum herb has the effect of clearing heat and dampness, detoxifying and detumescence, and has a good therapeutic effect on osteoarthritis.

Keywords: Asiaticum asiatica; Osteoarthritis

Osteoarthritis (OA) is a disease mainly manifested by joint pain caused by destruction, degeneration, damage and loss of joint bone tissue fibers due to various reasons [1]. The incidence group of OA is mainly middle-aged and elderly people, research statistics found that the incidence of osteoarthritis in China is about 15%, and more women than men, of which the incidence of more than 60 years old accounted for more than 50%, the incidence of patients over 75 years old accounted for as high as 80%. It can be seen that OA is one of the important diseases affecting the life treatment of the elderly. However, there is no clear conclusion on the pathogenesis of OA, and it is believed that it is related to many factors such as age, weight, gender, and working environment. With the continuous deepening of OA research, traditional Chinese medicine has a remarkable effect on OA, and the research on OA has gained a lot. Asiaticum sinensis taste bitter, bitter, cold; Liver, spleen, kidney three channels; It has the function of clearing heat and dampness, detoxifying and detumescence. Modern pharmacological studies have found that Asiaticum asiatica has a good therapeutic effect on OA, which can effectively reduce the release of pro-inflammatory factors, reduce the apoptosis of chondrocytes and other mechanisms to play an anti-OA effect [2].

Centella is a dry whole grass or root whole grass of the umbraceous family plant. It has the function of clearing heat and dampness, detoxifying and detumescence, etc. It is often used in clinic for dampness-heat jaundice, heatstroke diarrhea, stone bleeding, abscess, swelling and poison, and fall injury. Modern pharmacological studies have found that centella can inhibit scar hyperplasia, repair skin injury, treat and promote injury repair, and at the same time, it also has anti-depression, neuroprotection, anti-tumor and immune regulation, anti-ulcer, antibacterial, anti-inflammatory and analgesic effects [4]. In terms of OA, Asiatila sinensis can effectively improve the pathological changes of OA, effectively relieve OA symptoms, and provide a new solution for the study and treatment of OA.

According to modern pharmacological research, the main active components of Asiaticum asiaticum are triterpenes and their glycosides, polyalkynes, volatile oils, flavonoids, alkaloids and other compounds. At present, triterpenoids such as hydroxy-asiaticoside (MA) and Asiaticoside (ASS) are considered to play a major role in the composition of Asiaticoside. The same is true of relevant studies on the treatment of OA by Asiaticoside [3]. In this paper, we will focus on the mechanism and research progress of triterpenoids in OA, and also introduce the relevant mechanism of action of other active components in OA.

MA can effectively protect cartilage by reducing the expression of protease, and it has certain safety. In addition, SAFWAT ADEL ABDO MOQBEL further found in the study of rat chondrocyte osteoarthritis model that MA can inhibit the expression of inflammatory genes and MMPs by acting on the NF-KB p-p65/p65 signaling pathway. The mechanism of ASS treatment of OA may be through the regulation of OPG/RANK/RANKL signaling pathway, which provides a strong basis and proof for later research. In addition, the anti-inflammatory mechanism of ASS is also one of the functions in the treatment of OA, which can reduce the levels of IL-1ß, IL-6, TNF-a and other inflammatory factors, and reduce the damage of chondrocytes [4].

Through the summary of the research progress of Centella asiatica in OA, it is found that centella asiatica has diversified and multi-faceted advantages in the treatment of OA, and a variety of its effective ingredients all act on OA. With the continuous deepening of the research, the research level of Centella Asiatica in the treatment of OA has reached the pathway level, which shows that Centella Asiatica has significant curative effect on OA. Moreover, the study of standardized extracts on OA is also in-depth at the molecular level. It can be seen that the relevant mechanism of OA treatment is explored on the basis of traditional Chinese medicine and modern medical research as the method, so as to achieve the organic combination of traditional Chinese and Western medicine, effectively improve the international visibility of OA treatment of traditional Chinese medicine, and at the same time, promote the Chinese medicine to the world to provide a ladder.

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APPLICATION OF TLC-BIOAUTOGRAPHY IN SCREENING ACETYLCHOLINESTERASE INHIBITORS

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Abstract. TLC-bioautography, which originated in 1961, is a constantly developing technology. It combines the separation and analysis technology of thin layer chromatography with the detection technology of biological activity, and is applied in many fields, including medicine, food, cosmetics and so on. Acetylcholinesterase is closely related to the treatment of many nervous system diseases. Screening of acetylcholinesterase inhibitors from natural products can provide reference for the development of drugs for nervous system diseases. However, at present, the relevant information about the research and application of TLC-bioautography for screening acetylcholinesterase inhibitors is scattered. Therefore, it is necessary to review the relevant content of TLC-bioautography to provide reference for the comprehensive development and utilization of TLC-bioautography.

Keywords: TLC-bioautography; Acetylcholine; Acetylcholinesterase; Activity screening; Application

Acetylcholinesterase (ACh E) is related to many nervous system diseases, such as Alzheimer's disease, parkinson's disease, myasthenia gravis, etc. ACh E inhibitors can improve the function of the cholinergic system, learning and memory, thereby improving or treating Alzheimer's disease.

When the activity of AChE is abnormal, it will lead to myasthenia crisis and cholinergic crisis in patients, and ACh E inhibitors can also be used to treat the disease. In addition, ACh E inhibitors can also kill pests by blocking the normal nerve conduction of insects. It can be seen that ACh E inhibitor, as a reversible sexual inhibition of AChE, has a satisfactory effect.

With the continuous progress of science and technology, the detection technology of ACh E inhibitor is constantly improved. However, most screening methods are mainly applied to the activity screening of monomer components, and the screening of active compounds in complex systems has always been a challenge. TLC-bioautography can realize separation and activity determination at the same time, which is of great significance in the screening of natural product. Compared with the traditional method, this method is simple in operation, low in experimental cost, high in sensitivity and specificity, and fast in biological activity determination. At the same time, this method also combines the advantages of colorimetry (or fluorescence) and chromatographic separation technology, it is not necessary to separate compounds separately for detection. With the increase and deepening of research in recent years, the technology has been continuously improved and optimized, and more and more studies have been conducted to screen ACh E inhibitors, but the information is relatively scattered, so it is necessary to sort out its related contents for further research.

Objective

The purpose of this study is to review and discuss the principle, operation, and application of TLC-bioautography for screening acetylcholinesterase inhibitors. Perhaps this review can provide actionable insights for further research.

Materials and methods

Relevant information of TLC-bioautography and acetylcholinesterase inhibitor was collected through published materials and electronic databases, including the Chinese Pharmacopoeia, PubMed, Web of Science, Baidu Scholar, Google Scholar, and CNKI.

Results and discussion

Despite the widespread use of complex chromatography techniques combined with online bioassay, TLC-bioautography has still proven its value as a simple and inexpensive tool for separating and identifying active substances. In other words, it provides the simplest method for separating and screening bioactive substances from natural product. For natural product, the separation process is not easy. If the separation amount is still very small under the optimal condition, it is very necessary to develop a method that can detect a small number of substances and also can continuously detect biological activity. Based on the above conditions, TLC-bioautography is a technology that realizes the integration of separation and identification and is very suitable for the research of natural product.

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TO EXPLORE THE INFLUENCE OF TAI CHI ON MILD COGNITIVE IMPAIRMENT

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Abstract. Medicine that are effective in treating people with mild cognitive impairment (MCI) have strong side effects. Tai chi, a traditional Chinese exercise, has been shown to have good effects on mild cognitive impairment. This article summarizes the different effects of tai Chi on MCI in the collected RCT studies

Keywords: Mild cognitive impairment, Tai Chi

Age-related cognitive decline is a growing public health concern worldwide. Cognitive impairment (CI)is often considered a transitional stage from normal aging to Alzheimer's disease. Preventing the transition from cognitive impairment to Alzheimer's disease can greatly improve the quality of life of elderly patients. CI: Impairment in memory, learning new things, concentration, or decision-making, ranging from mild to severe. Patients with mild symptoms may show changes in cognitive function that do not affect their daily activities. Taijiquan is a traditional exercise method, combined with the ancient Daoshu and vomiting, containing the philosophical thoughts of Chinese Confucianism and Taoism, is a kind of exercise method of both body and mind. Tai Chi is expected to be effective in halting the progression of MCI.

Objective

To explore the effect of Taijiquan on mild cognitive impairment

Materials and methods

RCT clinical studies on the use of tai chi in patients with mild cognitive impairment in Pubmed, web of science, cochrane library and Embase were searched. To summarize the benefits of tai Chi for MCI.A total of 4 literatures were included, and their implementation environment and intervention methods were as follows: a nursing home.they performed the TCC (Tai Chi Chuan)exercise program for 35–40 min/session, twice a week for 12 weeks.The individuals in the control group (n= 22) were not subjected to any physical practice [1]; In the induction phase,Inforstructors conducted regular weekly sessions at the training centres until participants were familiar with the exercise.In the maintenance phase, Practice could be either in a group at the centres or at home.The frequency of the intervention was≥30 minutes per day and≥3 days per week [3]; Before starting the 6-month home practice, participants in the TC(Tai Chi) group learned TC principles and the 10-form TC for 9 sessions (3 times per week for 3 weeks). After completion of the 9 learning sessions, participants then practiced TC at home 3 times per week for 6 months (72 sessions). Participants in the educational control group received information related to cognitive impairment and fall prevention [4];The intervention group attended a 60-minute TCQ (tai chi qigong)session twice a week for 2 months. The participants were asked to record the frequency and duration of their daily self-practice at home. The carers were also asked to assist the participants to record the logbook if needed. Control group:participants were advised to maintain their routine activities [2].

Results and discussion

These four articles all revealed that tai chi exercise had a certain positive effect on mild cognitive impairment, and that it could reduce the fear of exercise and the risk of falling, which also had certain benefits on cognitive ability. Increased sleep quality and efficiency, and improved the psychological state of patients with cognitive impairment. The quality of life of patients was improved. However, due to the small sample size of RCT, the study design is single blind or even open label, which is likely to affect the results of the experiment. In the future, larger sample sizes and more novel blind methods are needed to explore the effects of tai chi on the functional status of patients with certification disorders.

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RESEARCH PROGRESS OF XANTHINE OXIDASE INHIBITORS BASED ON TLC-BIOAUTOGRAPHY

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Abstract. Thin layer chromatography (TLC)-bioautography, which combines TLC separation and bioactivity determination, is a fast and targeted tracking method for separation and screening of active ingredients under the guidance of activity. This method is simple, time-consuming, sensitive and specific, and can be used in the screening and evaluation of xanthine oxidase (XO) inhibitor and superoxide scavenger. In addition, XO can directly or indirectly produce uric acid, and elevated levels of uric acid can lead to the incidence of gout. This paper summarizes the objective, methods, results and discussion of screening XO inhibitors by TLC-bioautography. This technique can quickly screen the active compounds and provide an effective reference for the development of novel XO inhibitors in China.

Keywords: TLC-bioautography; Xanthine oxidase; Inhibitor; Activity screening; Application

TLC-bioautography is a screening method for enzyme inhibitors that combines thin-layer chromatography with bioautography, and is a drug screening method that integrates identification, separation and activity determination. In order to separate and determine the active ingredients in natural products, it is necessary to obtain the compounds in natural products first, and then screen the activity of each compound, and usually a large enough amount is required, and many tested compounds isolated from natural products often cannot meet this requirement. TLC-bioautography technology can complete the separation, localization and activity evaluation of samples at one time, and does not require a large number of compounds. Active ingredients can be directly visible spots on the thin layer plate, and can be directly screened from the crude extract, so as to rapidly target tracking, separation and screening of active ingredients, and greatly shorten the separation time of active ingredients. This technology is widely used in the separation and activity screening of natural products. TLC-bioautography was initially used to screen antibacterial active ingredients, and later it was gradually applied to screen antioxidant, cholinesterase inhibitory activity, glucosidase inhibitory activity, lipase inhibitory activity and other aspects. XO is a kind of flavin protease, which can catalyze hypoxanthine to produce xanthine, and then produce uric acid, and can directly catalyze xanthine to produce uric acid. Hyperuricemia is the pathological basis of gout. Therefore, direct or indirect inhibition of XO can reduce uric acid levels and thus reduce the occurrence of gout. Compared with commonly used clinical anti-gout drugs, such as: non-steroidal anti-inflammatory drugs, colchicine, glucocorticoid and allopurinol. These drugs often cause gastrointestinal reactions, kidney damage, severe cases can appear breathing difficulties, clotting disorders and so on. Therefore, it is of great significance to find safe and reliable xanthine inhibitors with small adverse reactions and significant effects for the treatment of these diseases.

Objective

The application of TLC-bioautography technology to the screening of XO inhibitory activity is not only simple and time-consuming, but also sensitive and specific, which is suitable for general laboratory operation, laying a knowledge foundation for the development of new anti-gout drugs in Chinese traditional medicine.

Materials and methods

In this paper, the application and research progress of thin layer autography in xanthine oxidase inhibitors in recent years were statistically studied, and the data were collected in Chinese pharmacopoeia, Chinese Flora, Web of Science, PubMed, Baidu Scholar, Google Scholar and CNKI databases. For «xanthine oxidase», «Xanthine oxidase inhibitor», «thin-layer chromatography», «bioautography» and « thin layer chromatography-bioautography « and « TLC-bioautography « as key words.

Results and discussion

Kong et al. established a thin-layer bioautography technique for XO inhibitors that does not require AGAR, which can react directly on thin-layer plates, and screened and separated the active ingredients of Astragalus membranaceus and Trichosanthes kirilowii. Then, four active components of Astragalus membranaceus extract were isolated, located and identified. Chen et al. used this technique to perform a rapid analysis of Erycibe obtusifolia. The results showed that three active components obtained from Erycibe obtusifolia had the activity of inhibiting XO.

Gout patients often have sudden severe pain in one or more joints, more than sudden onset at night, joint redness, swelling, skin temperature rise, joint surface skin purplish, tense, shiny, etc., which seriously affects People's Daily life. Gout is directly related to hyperuricemia caused by purine metabolism disorder and/or decreased excretion of uric acid, and XO is involved in the synthesis of uric acid. TLC-bioautography technology can be used to quickly and effectively determine the inhibition activity of compounds against XO, which can determine not only the biological activity of compounds but also the biological activity of metabolites or compounds. It provides an effective reference for developing new, safe and reliable anti-gout agents with little side effects.

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PROGRESS OF CHINESE MEDICINE IN REGULATING PSORIASIS-ASSOCIATED T LYMPHOCYTES

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Abstract. As a common chronic inflammatory disease in dermatology, psoriasis has a long course and is prone to recurrent attacks. Traditional Western medicine treatment is ineffective and has a lot of toxic side effects. Traditional Chinese medicine (TCM) therapy can not only treat both the symptoms and the root causes, effectively improve the skin lesions, but also regulate the imbalance state of the body's internal environment. This review combines the latest research and systematically describes the improvement of T lymphocyte subpopulations in the abnormal state from the perspective of traditional Chinese medicine therapy to provide a theoretical basis for the multi-targeted treatment of psoriasis by traditional Chinese medicine in order to more accurately guide the clinical practice.

Keywords: Chinese medicine; Psoriasis; T-lymphocytes; Immunity; Research progress

Psoriasis, clinically characterized by erythematous plaques and papules covered with silvery-white scales, is an immune-mediated, chronic, inflammatory, relapsing disease that usually involves the elbows, trunk, knees and head symmetrically. It is especially important to explore new treatment options, and TCM is widely used as a safe and effective way to treat psoriasis at all stages of the disease. In order to provide better theoretical support for the treatment of psoriasis with TCM, this paper analyzes the research on the mechanism of potential T-lymphocyte action in psoriasis in recent years, aiming to better guide clinical practice.

1.1 Th1 and Th2 cells

Thl and Th2 cells are derived from resting Th cells (Th0 cells) that have not yet received antigenic stimulation. Th0 differentiates to Thl and Th2 according to a certain ratio, and each secretes the corresponding cytokines, which can inhibit each other or promote themselves, thus forming a complex cytokine network that regulates the normal immune response. Under normal circumstances, Th1/Th2 is in dynamic equilibrium, while in psoriasis patients, the factors secreted by Th1, such as

IL-2, IFN-γ, TNF-α, etc., are increased, while the factors secreted by Th2, such as IL-4, IL-10, etc., are decreased, and the immune environment is dominated by Th1. Regulating the balance of Th1/Th2 cells is an important mechanistic target for the treatment of psoriasis [1].

1.2 Th17 and Treg cells

Th17 cells are mainly involved in the development of psoriasis by secreting cytokines such as IL-17A and IL-17F to mediate the inflammatory response, in which IL-17A in turn has its positive feedback loop, aggravating the inflammatory response and destroying skin tissues.Treg cells have the opposite main function of Th17 cells, and through the expression of Foxp3, CTLA4, and TLRs, they inhibit T cell proliferation and activation, which helps to maintain peripheral tolerance, thus limiting chronic inflammatory disease. In patients with psoriasis vulgaris, there is an imbalance in the cellular ratios of Th17/Treg, IL-23/Th17, and restoration of immune homeostasis between Treg/Th17 cells can be effective in the treatment of psoriasis [2].

1.3 Th22 cells, Th9 cells and Tfh cells

Th22 cells produce IL-22 and TNF-α, and IL-22 can bind to its receptor and activate downstream pathways to initiate an inflammatory response and induce psoriasis.IL-22 can both assist the body in resisting the invasion of pathogens and maintaining the homeostasis of the body's internal environment, and also act as an inflammatory factor to trigger an inflammatory response [3].Th9 cells, as a novel T cell subset, are involved in the development of psoriasis by secreting IL-9, IL-10, IL-2 and other inflammatory factors in the development of psoriasis, which has attracted much attention in recent years. Its functional cytokine is IL-9, which can be involved in a variety of cellular functions and can induce differentiation of Th17 cells, thus mediating a variety of inflammatory diseases [4]. Tfh cells, a recently discovered subpopulation of CD4+ T cells, are characterized by the high expression of CXCR5, and there are three different subpopulations of Tfh1, Tfh2, and Tfh17, of which Tfh17 is closely related to psoriasis development closely related to psoriasis [5].

Discussion

Psoriasis, as a chronic inflammatory disease with innate genetic and immune involvement in the whole process, abnormalities in the number or function of the relevant cells are involved in or affect the development of this disease. Focusing on the regulation of psoriasis-associated T-lymphocytes by means of TCM is the key to effectively controlling the progression of the disease. In the future, we should explore the pathogenesis of psoriasis in depth, and constantly seek new ideas and solutions for the treatment of psoriasis with TCM from multiple angles and targets.

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RESEARCH PROGRESS IN ACUPUNCTURE TREATMENT OF TRAUMATIC BRAIN INJURY

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Abstract. Traumatic brain injury refers to a disease caused by external forces acting on the head, resulting in brain dysfunction. It is a serious health problem that can lead to various physical and cognitive impairments. Acupuncture, as a traditional Chinese medical therapy, holds unique advantages in the treatment of traumatic brain injury. This article reviews relevant literature from the Chinese journal full-text database, Wanfang, VIP, and PubMed, aiming to provide references for clinical practice and mechanistic research.

Keywords: Acupuncture, traumatic brain injury, research progress

Object

The purpose of this article is to explore the research progress of acupuncture in the treatment of traumatic brain injury, including its mechanisms of action, therapeutic efficacy, and clinical application prospects. Through a comprehensive review of relevant literature, the aim is to provide guidance for future research and clinical practice in this field.

Materials and methods

This article adopts a literature review approach, retrieving relevant research papers on acupuncture treatment for traumatic brain injury and summarizing the mechanisms of action and current clinical research status.

Results and discussion

Experimental evidence has shown that acupuncture can effectively reduce the levels of TNF-α in brain tissue and the expression of NSE in serum of rats with cranial brain injuries, thereby protecting neurons [1]. Acupuncture can alleviate the pathological damage of cranial brain injuries by correcting the metabolism and release of 5-HT and NE [2]. Additionally, acupuncture can promote axonal regeneration and restore the structure and function of neurons [3]. In summary, acupuncture can positively affect brain injuries by inhibiting inflammatory responses, regulating neurotransmitter levels, and promoting neural repair and regeneration.

Clinical studies have demonstrated significant therapeutic effects of acupuncture in combination with rehabilitation training for motor disorders caused by cranial brain injuries [4]. Patients with cognitive impairment after traumatic brain injury have shown noticeable improvement in cognitive function through scalp acupuncture combined with cognitive training [5]. Early electroacupuncture treatment has been effective in promoting consciousness recovery in postoperative patients with cranial brain injuries, with favorable long-term outcomes [6]. The combination of electroacupuncture and swallowing training can effectively improve swallowing function and enhance survival prognosis [7]. Overall, acupuncture has shown certain efficacy in treating post-traumatic brain injury-related issues, such as motor dysfunction, cognitive impairment, consciousness disorders, and swallowing difficulties.

Based on this, it can be concluded that acupuncture therapy for traumatic brain injury (TBI) has unique advantages and broad application prospects. However, standardized research design remains incomplete, and the sample sizes are relatively small, which hinders the reliability and reproducibility of research results. Additionally, the mechanisms of acupuncture therapy have not been fully elucidated, requiring further experimental research support. Furthermore, the specific techniques and treatment protocols of acupuncture therapy also need further optimization and standardization. With the advancement of technology and the continuous deepening of medical research, it is believed that acupuncture therapy will bring better treatment outcomes for patients with traumatic brain injury.

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EFFECTS OF JIEDU HUOXUE DECOCTION ON THE EXPRESSION OF FGF23 AND KLOTHO IN THE KIDNEYS OF RATS WITH CHRONIC KIDNEY DISEASE

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Abstract. Chronic renal failure is the common outcome of the progressive progression of a variety of kidney diseases.The clinical treatment of chronic renal failure is based on the theory of «detoxification and turbidity» in the «Internal Classics», with the main outline of strengthening the body resistance to eliminate pathogenic factors and reinforcing deficiency and reducing excess, while supporting the righteous qi, accompanied by detoxification and turbidity, activating blood and removing stasis throughout. Modern pharmacological research also confirms that the efficacy of the drugs in the Jiedu Huoxue Decoction is mainly reflected in anti-platelet aggregation and anti-inflammatory aspects, which can effectively improve the clinical symptoms of chronic renal failure patients such as dull complexion, nausea and vomiting, itchy skin, etc., thereby improving the quality of life of patients. Jiedu Huoxue Decoction can improve the kidney function of chronic kidney disease (CKD) rats, which can regulate the concentration of Ca and P in the blood of CKD rats by increasing the expression of FGF23 and Klotho protein in the kidney tissue of CKD rats, and its effect is related to the dose of Jiedu Huoxue Decoction.

Keywords: Huangdi's Internal Classics; Quwan Chencuo; Jiedu Huoxue Decoction; Chronic renal failure; FGF23; Klotho

The results of relevant studies show that the prevalence of CKD in the global general population has reached 14.3% [1]. Disorders of calcium and phosphorus metabolism are common clinical manifestations in patients with CKD, which can lead to abnormal mineral and bone metabolism, resulting in renal bone disease, multisystem functional damage, and high incidence of cardiovascular accidents .

At present, the main treatment methods used in the clinical treatment of CKD calcium and phosphorus metabolism disorders are to regulate blood phosphorus and blood calcium, treat secondary hyperparathyroidism [2], fibroblast growth factor 23 (fibroblast growth factor, FGF23) can act on the kidneys and participate in the regulation of blood phosphorus in the body, so that it maintains homeostasis [3], Klotho has the ability to prevent vascular calcification, VC), can inhibit the absorption of phosphorus, accelerate the excretion of urinary phosphorus and reduce the phosphorus load of the body [4], this study is based on the theory of «removing the spleen and kidney deficiency, wet turbidity and blood obstruction» of chronic renal failure, which has its theoretical basis; Clinical practice has also confirmed that Jiedu Huoxue decoction have a good clinical effect on patients with CKD, and can significantly improve renal function and calcium-phosphorus balance, but there are still few studies on how Jiedu Huoxue decoction affects calcium-phosphorus metabolism disorders caused by CKD. In summary, this experiment explores the effects of Jiedu Huoxue decoction on renal function and kidney FGF23 and Klotho protein expression in rats with chronic kidney disease, as well as their effects on Ca and P, which are reported as follows.

Objective

To observe the effects of Jiedu Huoxue decoction on FGF23 and Klotho in rats with chronic kidney disease.

Materials and methods

Sixty healthy male SD rats with SPF grade were randomly divided into normal control group (group A), model group (group B), low-dose group of traditional Chinese medicine (group I), medium-dose group of traditional Chinese medicine (group H), and high-dose group of traditional Chinese medicine (group G), with 12 rats in each group. A model of vascular calcification in rats with CKD was

prepared using adenine plus high-phosphorus diet. Biochemical kits were used to determine serum creatinine (Scr), urea nitrogen (BUN), calcium (Ca), phosphorus (P) levels. The Western-blot method detects the expression of FGF-23,α-Klotho in kidney tissue.

Results and discussion

In this experiment, we can find that compared with the model group, the improvement of kidney function level in CKD rats is positively correlated with the concentration of Jiedu Huoxue Decoction, and the higher the concentration of Jiedu Huoxue Decoction, the better the effect on reducing serum creatinine and urea nitrogen in CKD rats. The higher the concentration of Jiedu Huoxue Decoction, the higher the expression of FGF-23 and Klotho protein in kidney tissue, which in turn affects the calcium and phosphorus metabolism of CKD rats, so that blood calcium rises and blood phosphorus decreases.

Conclusion

Jiedu Huoxue decoction can improve kidney function in CKD rats, and regulate the blood concentration of Ca and P in CKD rats by increasing the expression of FGF23 and Klotho proteins in the kidney tissues of CKD rats.

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RE INNOVATION OF TRADITIONAL CHINESE MEDICINE MOXIBUSTION: ADVANTAGES OF HEAT-SENSITIVE MOXIBUSTION IN TREATING LUMBAR DISC HERNIATION

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Abstract. With the change of people's life style, the incidence of lumbar disc herniation is increasing year by year, and the inconvenience of mobility and expensive treatment costs caused by it have aroused the high attention of the public. As a traditional Chinese medicine therapy, moxibustion can promote blood circulation to remove meridian obstruction, relieve pain, and has its low cost and remarkable curative effect, which has become a treatment choice for more and more people. Heat-sensitive moxibustion is a characteristic moxibustion method, and its efficacy is also recognized by professional scholars and patients. This paper mainly through the pathogenesis of lumbar disc herniation, summarizes the principle of traditional moxibustion and heat-sensitive moxibustion in the treatment of lumbar disc herniation, and highlights the therapeutic advantages of heat-sensitive moxibustion.

Keywords: Traditional moxibustion method; Heat sensitive moxibustion; Lumbar disc herniation

Moxibustion is the traditional therapy of acupuncture and moxibustion in traditional Chinese medicine. It takes mugwort as the main material, directly or indirectly burns the body surface acupoints after lighting, warming the meridians, promoting qi and blood circulation, and is often used in arthralgia, deficiency and cold disease, asthma, prevention and health care. Heat-sensitive moxibustion (HSM) belongs to the characteristic moxibustion method, which refers to a new moxibustion method to find heat-sensitive acupoints through hanging moxibustion, to stimulate qi with specific techniques, so as to individualize sensitization moxibustion volume for achieving acupoints. Lumbar disc herniation (LDH) belongs to the category of «bi syndrome» and «low back pain» in traditional Chinese medicine, due to the invasion of rheumatism, cold and heat or kidney deficiency caused by indirect pain. Studies have proved that Chinese moxibustion, especially heat-sensitive moxibustion, has certain advantages in the prevention and treatment of this disease [1].

Objective

Briefly describe the pathogenic mechanism of lumbar disc herniation, summarize the high efficiency and innovation of HSM treatment of LDH, and provide ideas for clinical diagnosis and treatment.

Materials and Methods

By searching CNKI and PubMed database, this paper reviewed the relevant literature on the treatment of LDH by traditional moxibustion and HSM in recent years. After careful reading, we compared and summarized the efficacy of traditional moxibustion and HSM, highlighting the advantages of HSM in the treatment of LDH.

Results and Discussion

Studies have found that the main pathogenic mechanisms of LDH are neuromechanical compression, inflammatory chemical stimulation, autoimmune response, nerve root adhesion and other[2], among which inflammatory stimulation becomes the main physiopathological basis of [3].» Compendium of Materia Medica» contains «moxibustion through the classics and cure a hundred kinds of diseases», moxibustion to Yang scattered evil, stimulate the body through multiple targets and multiple ways, research has proved that moxibustion therapy can reduce serum inflammatory factor[4], promote the improvement of lumbar function. HSM is a further innovation of moxibustion, in this therapy, the importance of providing heat-sensitive acupoint treatment relationship can not be underestimated. To some parts of the body, moxibustion stimulate thermal reaction phenomenon, characterized by strong warm or thermal infiltration into the body (heat penetration), warm to the stimulus around the diffusion (heat expansion), warm in a certain direction and reach some parts even away from the stimulation of the viscera (heat conduction), or other heat feeling, such as pain, heavy, pressure, etc.[5] Professor Chen Lixin created «sensitive positioning» and «sensitive quantitative» efficient gas heat moxibustion new techniques, produce «small stimulation, big reaction»[6], the principle is that «the HSM feeling disappears for the degree», moxibustion treatment time than traditional moxibustion flexible, according to the sensitization point for moxibustion, make the body more sensitive to the outside stimulus, Stimulate the qi, improve moxibustion curative effect.

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RESEARCH PROGRESS OF ACUPUNCTURE COMBINED WITH OTHER METHODS IN THE TREATMENT OF DEPRESSION

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Abstract. Depression is a global burden that poses significant challenges to individuals and society. Acupuncture, a traditional Chinese medicine therapy, has gained recognition as an effective treatment for depression. In recent years, researchers have explored combining acupuncture with other therapeutic modalities to enhance treatment outcomes for depression. This article reviews existing literature on combining acupuncture with Chinese medicine treatment, wheat moxibustion therapy, and five elements music therapy for depression, aiming to provide valuable references for clinical practices.

Keywords: acupuncture; Depression; Chinese medicine treatment; wheat moxibustion therapy; five elements music therapy

Depression is a common mental illness that the World Health Organization ranks as the second highest burden of disease globally. Depression not only brings great suffering to patients, but also has a serious impact on society and economy. Fortunately, acupuncture, as a traditional Chinese medicine therapy, has been more and more widely used in the treatment of depression in recent years. With the increase of depression in modern society, people began to explore the possibility of acupuncture therapy combined with other methods to treat depression. This article summarizes the literature of acupuncture combined with Chinese medicine treatment, moxibustion of wheat grain treatment and five elements music therapy of depression, aiming to provide reference for clinical work.

1. Acupuncture combined with Chinese medicine therapy

Yang Yang [1] used acupuncture combined with Bupleurum Shugan powder to treat 48 cases of liver-qi depression, and the results showed that the total effective rate was 87.5%. Tian Ming[2] divided 107 patients with depression into control group and experimental group. The control group received oral fluoxetine treatment, while the observation group received oral fluoxetine treatment combined with gardenia and fermented soybean decoction and «tiao-shen» acupuncture treatment. The results showed that the combination of acupuncture with Chinese medicine showed promising results in enhancing the overall effective rate, suggesting its potential for treating depression effectively.

2. Acupuncture combined with wheat moxibustion therapy

Yang Yuanyuan [3] divided 60 patients with postpartum depression into two groups, and the results showed that acupuncture combined with wheat moxibustion in the treatment of postpartum depression was superior to Sertraline hydrochloride dispersing tablets in terms of clinical efficacy and related score improvement, and the effect was more lasting and stable. Cai Huiqian [4] observed 60 patients with depression in college students and found that compared with the western medicine group with oral fluoxetine hydrochloride capsule, acupuncture combined with wheat moxibustion in the treatment of depression in college students was more effective than oral fluoxetine hydrochloride capsule, and acupuncture combined with wheat moxibustion in the treatment of depression in college students had faster effect and fewer adverse reactions.

3. Acupuncture combined with five elements music therapy

Zhang Yao divided 63 patients with post-stroke depression into five elements music group, acupuncture group and combined group, and gave five elements music therapy, acupuncture and combined acupuncture treatment, respectively. The results showed that the combined treatment effect was more significant. Miao Bin [6] showed that acupuncture combined with five elements music therapy has a significant effect on depression after cancer chemotherapy, which can improve patients' depression state and improve their sleep and quality of life.

Combining acupuncture with other treatment methods, such as Chinese medicine, wheat moxibustion therapy, and five elements music therapy, has shown promise in improving treatment outcomes for depression. These combined therapies offer comprehensive approaches to address both the physical and psychological aspects of depression, leading to better symptom relief. However, further research is necessary to optimize the combination of acupuncture with other treatment methods and evaluate their efficacy, providing more effective strategies for clinical depression treatment. Ongoing research in the field is expected to unveil the full

potential of acupuncture therapy in achieving better treatment effects for patients with depression.

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CLINICAL RESEARCH PROGRESS ON ACUPUNCTURE TREATMENT OF SHOULDER HAND SYNDROME AFTER STROKE

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Abstract. Shoulder-hand syndrome is a common complication of stroke patients, mainly characterized by pain, edema, and dysfunction of the shoulder and hand on the affected side. At present, there are many traditional Chinese medical and Western medical treatment methods for shoulder-hand syndrome, their therapeutic effects are different. A large number of clinical practices in recent years have provided valuable experience in the treatment of this disease, among which acupuncture based combined therapy has shown remarkable clinical efficacy for post-stroke shoulder-hand syndrome, not only safety but also small side effects.

Keywords: Stroke, Shoulder-hand syndrome, Acupuncture, Combined therapy, Review

Shoulder-Hand Syndrome (SHS), also known as «reflex sympathetic dystrophy,» is a severe sequelae of stroke characterized by swelling, pain, and limited hand function on the affected side, along with various symptoms such as vascular dysfunction, edema, sensory abnormalities, and nutritional disturbances[1]. Although Western medicine treatments such as corticosteroids and nonsteroidal anti-inflammatory drugs have shown effectiveness, their long-term use is limited due to side effects. Traditional medicine, especially acupuncture, has been widely regarded because of its high safety, minimal side effects, and proven efficacy in treating SHS. This article reviews the clinical research on comprehensive treatment mainly involving acupuncture for SHS.

1 Etiology and Pathogenesis

In traditional Chinese medicine, it can be categorized as «shoulder impediment,» «atrophy syndrome,» or «partial withering.» In the first stage, patients primarily suffer from «qi deficiency and blood stasis, wind-phlegm obstruction of the collaterals.» After a stroke, the body becomes weak, and with the invasion of wind, cold, dampness, and other pathogenic factors, qi stagnation and blood stasis, wind-phlegm blockage occur, leading to pain, resulting in «shoulder impediment.» In the second and third stages, the main factors are «liver and kidney insufficiency, deficiency of qi and blood.» After a stroke, the liver and kidney functions weaken, causing deficiency of qi and blood, leading to insufficient nourishment of tendons and bones, hindering the movement of shoulder and hand joints, and developing into «atrophy syndrome» or «partial withering.» Currently, the exact pathogenesis of SHS in modern medicine remains unclear but may be related to factors such as central nervous system sensitization, sympathetic nervous system dysfunction, shoulder-hand muscle

pump dysfunction, or local tissue inflammation and damage.

2 Scalp acupuncture

He et al. [2] combined scalp acupuncture with electroacupuncture to treat SHS patients, and the results showed increased scores in upper limb motor function (Fugl-Meyer Assessment, FMA), visual analog scale (VAS), and modified Barthel index (MBI).

3 Electroacupuncture

Huang et al. [3] used continuous wave electroacupuncture at the Quchi and Hegu points, along with pricking and needling, with significant therapeutic effects.

Special Techniques

Shi et al. [4]penetrate Neiguan to Weiguan and penetrate Tianquan to Jianliao. The needle is inserted to the ground, then retracted to the top, and after obtaining Qi, it is inserted into Renmen. After a slight lifting, thrusting, and twisting, the thumb moves the needle handle downward and inward, while the index finger moves it upward and outward, each cycle taking 1 minute, with the needle withdrawn after three cycles. This technique is effective for SHS.

Conclusion

The efficacy of acupuncture in treating SHS has been affirmed and the advantages of acupuncture therapy, such as simplicity, effectiveness, and economy, have also been gradually recognized. With the diversified development of acupuncture treatment, besides conventional needling, techniques like acupoint embedding, acupoint injection, wrist-ankle needling, etc., are also gaining popularity. However, the treatment of post-stroke shoulder-hand syndrome remains a clinical challenge, and although acupuncture has shown good treatment effects, a unified treatment standard has yet to be established. In the future, with the help of more advanced diagnostic and therapeutic equipment and standardized treatment protocols, clinical efficacy can be further improved.

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CLINICAL APPLICATION OF ACUPUNCTURE COMBINED WITH REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION FOR POSTSTROKE APHASIA

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Abstract. Aphasia is one of the common symptoms of nerve defects after cerebral infarction. The combination of acupuncture and repetitive transcranial magnetic stimulation(TMS) in the treatment of aphasia after stroke has become a research hotspot. This treatment modality can effectively treat aphasia after stroke and promote the recovery of the patient's language function [1].

Keywords: acupuncture, repetitive TMS(rTMS), stroke, aphasia

After stroke aphasia is a common complication after stroke, mostly due to brain tissue ischemia, hypoxia, the corresponding brain function impairment, the signal pathway function in the brain disorder, resulting in the imbalance of presentation ability, text comprehension, expression, speech analysis control. Studies have shown that post-stroke aphasia is closely related to insufficient blood perfusion and abnormal microcirculation status in the language areas of the cerebral cortex, and insufficient perfusion in the impaired areas is positively correlated with the severity of aphasia symptoms [2].

Acupuncture can improve free radical oxidation, brain blood circulation and blood oxygen level, reduce inflammatory reaction, promote hematoma absorption, improve the regenerative ability of cells around the lesion, and promote functional recovery after stroke from multiple links [3]. Transcranial magnetic stimulation (TMS) is a cortical stimulation method first established by Barker in 1985, which has the advantages of painless, injury-free, simple operation, safe and reliable. The rTMS is a new nerve electrophysiological technique developed on TMS.

Both rTMS and TMS apply pulsed magnetic field to brain tissue to induce a certain intensity of induced current, depolarize nerve cells and generate evoked potentials. In addition to being used in the excitatory motor cortex and observing motor evoked potentials, rTMS can also be used to locate the language center of epilepsy patients and evaluate cognitive impairment. It also improves response capacity, treats depression and reduces seizure frequency in Parkinson's disease [4].

Objective

To analyze the effectiveness of acupuncture combined with repetitive for stroke aphasia.

Materials and Methods

The randomized controlled trial was designed to divide patients into control group and observation group. The control group used conventional acupuncture, and the observation group added repeated rTMS in addition to the control group.

Results and Discussion

Acupuncture combined with low frequency-rTMS or high frequency-rTMS is better than language training alone, but the mechanism of action is not fully defined [5]. At present, the number of observation samples in clinical trials is small, the time is short, and there is no complete treatment plan for different types of aphasia. In the future, more efforts should be made to explore and study in the future study and work.

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STUDY ON THE MEDICATION PATTERNS OF TRADITIONAL CHINESE MEDICINE FOR MENSTRUAL BLEEDING BASED ON DATA MINING

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Abstract. Retrieve literature from CNKI, Wanfang data, CBM database, and PubMed on the treatment of menstrual bleeding with traditional Chinese medicine in the past 20 years, and analyze using SPSS Statistics 20.0 SPSS Modeler 18.0 software using data mining methods. The results showed that 38 articles and 39 compound prescriptions met the inclusion criteria, with a total of 10 syndrome types, with the kidney yin deficiency type being the most common; The common drug combination is Ligustrum lucidum - Eclipta grandiflora. The results suggest that traditional Chinese medicine for treating menstrual bleeding mainly nourishes the liver and kidney, and cools blood.

Keywords: ovulation bleeding; nourishing the liver and kidney;data mining

Intermenstrual bleeding refers to the periodic small amount of vaginal bleeding that occurs between two menstrual periods, during the dense period. It is commonly seen in women of puberty and childbearing age, and is referred to as periovulatory bleeding in Western medicine. Its pathogenesis is still unclear. Menstruation is the reaction to the hormone interaction produced

by the hypothalamus, pituitary and ovary. The endometrium falls off periodically and orderly [1]. If the estrogen Progestogen drops during the ovulation period, the endometrium may fall off partially, leading to bleeding. The use of estrogen or the addition of VitK4 to repair the endometrium can stop bleeding, but the long-term effect is not ideal [2]. Traditional Chinese medicine, starting from different entry points such as kidney deficiency [3], liver yang deficiency [4], and liver blood deficiency [5], adopts various treatment methods such as regulating the cycle, assisting yang, nourishing yin and clearing heat to treat the underlying disease based on syndrome differentiation. It has indeed achieved therapeutic effects with fewer side effects.

Objection

This study uses data mining methods to conduct in-depth analysis of traditional Chinese medicine for the treatment of menstrual bleeding, providing objective reference basis for the current treatment of menstrual bleeding with traditional Chinese medicine.

Materials and methods

Using the theme words' menstrual bleeding 'or' ovulation bleeding ', full text=' traditional Chinese medicine ', computer search databases have publicly published literature in the past 20 years. The specific requirements for inclusion in the literature are as follows: (1) The diagnosis and syndrome types of menstrual bleeding are clear, and the source of the syndrome types is clear; (2) The observation group was treated with pure Chinese herbal formula (including decoction, pills, granules, Salve) or combined with western medicine. The effect of the observation group was better than that of the control group (treated with western medicine). Clinical cases ≥ 30, total effective rate ≥ 75%. The traditional Chinese medicine formulas used for syndrome differentiation and treatment in the same literature were recorded according to different formulas. SPSS Statistics 20.0 software was used to perform frequency analysis on the required data, and systematic clustering analysis was performed on traditional Chinese medicine with a frequency greater than 5 times. Combine the clustering analysis tables to obtain the clustering formula. Use SPSS Modeler 18.0 software to perform association rule analysis on drugs using the Apriori algorithm.

Results and discussion

The most common syndrome type is kidney yin deficiency, with a frequency of 60.55%; There are a total of 4 drugs with a frequency of medication ≥ 20 times, followed by Radix Rehmanniae, Radix Paeoniae Alba, Rhizoma Eclipta, and Fructus Ligustri, with a cumulative frequency of 21.33%; The frequency of use is significantly higher for tonifying deficiency drugs and clearing heat drugs, with a cumulative frequency of 70.67%; Among them, the majority of deficiency tonifying drugs are yin tonifying drugs, blood tonifying drugs, and qi tonifying drugs, with a cumulative frequency of 204 times and a cumulative frequency of 45.33%. Heat clearing drugs are mainly heat clearing and blood cooling drugs, and deficiency heat clearing drugs, with a cumulative frequency of 50 times and a cumulative frequency of 11.11%; The medicinal properties are mostly cold, with the first and total medicinal flavors being mostly sweet, bitter, and spicy. The first meridian is the liver meridian, followed by the spleen and heart meridians.The common drug combination analyzed by association rules is Ligustrum lucidum - Eclipta grandiflora.There are various theories and methods of traditional Chinese medicine for treating menstrual bleeding, but there is a lack of high-quality RCT literature based on a large sample,The current research is also not detailed enough, lacking a large number of studies that focus on geographical and age segmentation. There are still many detailed entry points for future research.

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OBJECTIVE STUDY ON TONGUE DIAGNOSIS OF CHRONIC HEPATITIS B

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Abstract. Tongue diagnosis belongs to the category of traditional Chinese medicine observation and has the advantage of simplicity in the diagnosis and treatment of diseases. This article reviews the current research status of tongue diagnosis in chronic hepatitis B from two aspects: research and application. The results show that there is a certain correlation between tongue imaging and biochemical indicators, liver pathological changes, staging in patients with chronic hepatitis B. And the existing problems are analyzed in this article.

Keywords: chronic hepatitis B, tongue diagnosis, traditional Chinese medicine, objectification, correlation

Viral hepatitis is a contagious disease caused by various viruses, with liver damage as the main manifestation. Among them, there are approximately 350 million carriers of hepatitis B virus worldwide, with around 100 million in China, which has become a public issue affecting human health. The prevention and treatment of chronic hepatitis B is one of the advantages of traditional Chinese medicine. "Distinguishing the quality of the tongue can distinguish the deficiency and excess of the five internal organs, and observing the coating on the tongue can reveal the six excesses. «Tongue diagnosis is an important syndrome differentiation method in traditional Chinese medicine, which is more convenient and fast compared to other indicators. The tongue diagnosis and application of chronic hepatitis B are summarized as follows.

1. The relationship between tongue imaging and biochemical indicators in patients with chronic hepatitis B

Liu Jian [1] observed the tongue picture, Prothrombin time, globulin, serum bilirubin, albumin to globulin ratio, Alanine transaminase and other biochemical indicators in 582 cases of hepatitis B. The results showed that the indicators in the pale red tongue group were mostly within the normal range. Serum bilirubin and Alanine transaminase increased significantly in the group of red tongue or slimy yellow tongue fur. The Prothrombin time was prolonged and the amount of globulin was increased in the red tongue group. The laboratory indicators of the group with purple tongue were higher than normal. The Prothrombin time was prolonged, the amount of globulin was increased, the ratio of albumin to globulin was inverted, and the serum bilirubin was increased in the group with dim tongue, indicating that the liver function of hepatitis B was related to the tongue imaging.

2. The relationship between tongue imaging and liver pathological changes in patients with chronic hepatitis B

Zhang Chizhi [2] observed the tongue morphology and pathological changes of liver tissue in 150 patients with chronic hepatitis B. The results showed that in patients with chronic persistent hepatitis, the tongue was mostly pale red, and the histopathology was mainly characterized by fibrous tissue hyperplasia and liver cell looseness. Chronic active hepatitis is mostly characterized by red or purple tongue, and red tongue is mainly characterized by debris necrosis, focal necrosis, and boundary plate necrosis; Purple dark tongue is mainly characterized by debris necrosis and boundary plate necrosis.

3. The relationship between tongue imaging and staging in patients with chronic hepatitis B

Ma Jingmin [3] and others found that the early manifestations of chronic hepatitis B are mainly pale red tongue, thin white coating, or white greasy coating. In the middle and late stages, the tongue image changes from red to crimson to purple, and the tongue coating changes from greasy to dry, from white to yellow to black, indicating a dangerous prognosis.

4. Problems and prospects

In recent years, the development of medicine has led to the rapid development of tongue diagnosis in chronic hepatitis B. The research on the correlation between tongue diagnosis and biochemical indicators, pathological changes, staging of chronic hepatitis B has enriched the content of traditional Chinese medicine syndrome differentiation. However, from a microscopic perspective, research on pathological changes is more limited to liver histological changes, and we need to strengthen multi-level and systematic research. From the perspective of traditional Chinese medicine syndrome differentiation, the insufficient quantitative standards for tongue diagnosis have limited its development. We need more relevant research to combine the objective results of tongue diagnosis with clinical practice, which has stronger guiding significance for the prevention and treatment of chronic hepatitis B.

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RESEARCH PROGRESS ON OBJECTIVE TONGUE DIAGNOSIS OF TUMOR PATIENTS BASED ON TONGUE COATING MICROBIOTA

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Abstract. Under the guidance of traditional Chinese medicine theory, tongue diagnosis has provided significant assistance to clinical diagnosis. However, due to the multiple influencing factors and subjective nature of tongue diagnosis, it requires objective research. Currently, objective studies on tongue diagnosis of various tumors based on tongue coating microbiota show differences in microbiota abundance and diversity between tumor patients and healthy individuals. This suggests that tongue coating microbiota analysis may potentially contribute to early detection of tumors. Moreover, it is anticipated that future research will provide further assistance to clinical practice.

Keywords: tongue diagnosis, microbiota, lung cancer, gastric cancer, Breast Cance

In Traditional Chinese Medicine (TCM), the diagnosis of diseases often relies on the «Four Diagnostic Methods» which include observation, olfaction, inquiry, and palpation to collect diagnostic information. Particularly, tongue diagnosis has gained increasing importance in clinical practice, evolving along with the development of fever-related diseases. In the theory of TCM tongue diagnosis, the coating of the tongue reflects the condition of the stomach qi, which in turn reflects the overall state of the body. Therefore, by examining the tongue coating, one can understand the condition of the disease. However, tongue observation is often subjective and easily influenced by environmental lighting and the physician's subjectivity. Therefore, the objective study of tongue diagnosis provides greater reference value for clinical diagnosis.

Currently, there is an increasing amount of research focusing on the objectification of tongue diagnosis based on microbial communities. Ma Guang-Qiang and others [1] have analyzed the composition of prokaryotic microbial communities in relation to yellow greasy tongue coating and thin white tongue coating. They believe that the composition of microbial communities plays an important role in the formation of tongue coating color, and different compositions of microbial communities may be the main cause of tongue coating formation. At the same time, the incidence of cancer in our country is increasing, but it is often diagnosed in the middle or late stages when obvious symptoms appear. Therefore, many researchers have focused on studying the correlation between tongue coating microbiota and tumors, aiming to detect tumors early and provide a longer time window for clinical treatment, thus improving the survival time and quality of life for cancer patients.

1. Lung Cancer

Research analyzing and statistically analyzing the tongue coating of lung cancer patients found that the thickness of the tongue coating in lung cancer patients is significantly higher than that of healthy individuals. Through Illumina Miseq sequencing of tongue coating microbiota, it was discovered that the major phyla are Firmicutes, Bacteroidetes, Proteobateria, Actinobacteria, and Fusobacteria. The predominant genera include Prevotella, Streptococcus, Veillonella, Neisseria, Lactococcus, Haemophilus, Granulicatella, and Fusobacterium. The dominant bacteria in the thick tongue coating group are Streptococcus, Lactococcus, and Actinomyces. The microbial abundance and diversity in the thick tongue coating group were lower than those in the thin tongue coating group and healthy group. Specific tongue coating microbiota detection may serve as a specific biomarker for early lung cancer [2].

2. Gastric Cancer

Through high-throughput sequencing analysis of tongue coating bacteria and fungi using 16S rDNA and 18S rDNA genes, electrochemiluminescence detection of 20 inflammatory factors in serum, and ultra-high-performance liquid chromatography-mass spectrometry (UPLC-MS) analysis of serum metabolomics, Sheng Rui et al. found that the relative abundance of Firmicutes in the tongue coating was significantly higher in patients with spleen-stomach weakness syndrome of

gastric cancer, while the relative abundance of Bacteroidetes, Proteobacteria, and Fusobacteria was lower ($P<0.05$). Linear discriminant analysis (LDA) identified Bacillus subtilis, Enterococcus, Streptococcus, and Serratia as signature genera of the tongue coating in gastric cancer patients with spleen-stomach weakness syndrome [3].

3. Breast Cancer

There have been studies on the analysis of tongue coating microbiota in breast cancer patients, which have found differences in the dominant bacterial species at the phylum level of microbiota compared to healthy individuals. Moreover, significant enrichment of microbiota has been observed in breast cancer patients. This indicates that the analysis of tongue coating microbiota may provide reference for the diagnosis of breast cancer [4].

Conclusion

Currently, objective studies on tongue diagnosis of various tumors based on tongue coating microbiota show differences in microbiota abundance and diversity between tumor patients and healthy individuals. This suggests that tongue coating microbiota analysis may potentially contribute to early detection of tumors. However, a systematic framework is yet to be established. It is hoped that future research will delve deeper and provide more comprehensive insights, thus offering greater significance to clinical diagnosis.

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STUDY ON THE EFFECT OF DRUG PAIR OF HEDYOTIS DIFFUSA AND SCULELLARIA BARBATA ON THE PATHOGENESIS OF ACUTE LIVER INJURY BASED ON FERROPTOSIS

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Abstract. This paper introduces the inhibitory effect of the drug pair of Hedyotis diffusa and Sculellaria barbata on ferroptosis in acute liver injury. Prussian blue staining and transmission electron microscopy were used. The results showed that ferroptosis occurred in liver tissue and cells, in which drug pair of Hedyotis diffusa and Sculellaria barbata had an obvious inhibitory effect on ferroptosis in high dose group, while the inhibitory effect on ferroptosis in low dose group was not obvious.

Keywords: ferroptosis, Prussian blue, Hedyotis diffusa, Sculellaria barbata

Acute liver injury is a common and harmful disease in clinics, with high mortality [1]. As one of the forms of cell death, ferroptosis is mainly manifested by lipid peroxidation and iron deposition [2]. Studies have shown that ferroptosis is involved in acute liver injury, liver fibrosis, liver cancer, and other pathological processes [3]. Our previous study found that the drug pair of Hedyotis diffusa and Sculellaria barbata has a good protective effect on acute liver injury. This study intends to establish a mouse model of acute liver injury induced by CCL4, and then explore the effect of the drug pair of Hedyotis diffusa and Sculellaria barbata on ferroptosis in the process of liver injury.

Objective

To explore the effect of the drug pair of Hedyotis diffusa and Sculellaria barbata on ferroptosis in the process of acute liver injury.

Materials and methods

40 ICR mice were randomly divided into blank group, model group, high-dose drug pair of Hedyotis diffusa and Sculellaria barbata group, and low-dose drug pair of Hedyotis diffusa and Sculellaria barbata group, with 10 mice in each group. The drug was given after 3 days of adaptive feeding. Normal saline was given to the blank and model groups, and the drug pair of Hedyotis diffusa

and Sculellaria barbata was given to the high-dose and low-dose groups for 10 consecutive days. One hour after the last administration, the mice in the blank group were injected with peanut oil intraperitoneally, and the mice in the other groups were injected with 10%CCl4 peanut oil solution to establish the model of acute liver injury. After fasting for 24 hours, the mice were anesthetized to take blood from the eyeball and take the liver. The pathological changes of liver cells were observed under transmission electron microscope and the pathological changes of liver tissue were observed by Prussian blue staining.

Results and discussion

The results of the transmission electron microscope showed that the structure of liver cells in the blank group was normal, the morphology of mitochondria was normal and the cell membrane was intact. Compared with the blank group, the structure of liver cells in the model group was disordered, the cell membrane was broken, the mitochondria atrophied and the morphology of the nucleus was normal. Compared with the model group, the drug pair of Hedyotis diffusa and Sculellaria barbata did not improve the pathological damage of liver cells in the low-dose group. In the high-dose group, the liver cell structure tended to be normal, and the cell membrane rupture and mitochondrial atrophy decreased significantly in the high-dose group.

HE staining results showed that there were no blue staining particles in the blank group; compared with the blank group, there were obvious blue staining particles, obvious iron deposition, and significant iron ion accumulation in the model group; compared with the model group, there was no significant difference in blue staining granules and iron deposition in the drug pair of Hedyotis diffusa and Sculellaria barbata low dose group; compared with the model group, the blue staining particles and iron deposition content in the drug pair of Hedyotis diffusa and Sculellaria barbata high dose group decreased significantly.

Therefore, in the process of acute liver injury, the inhibitory effect of the drug pair of Hedyotis diffusa and Sculellaria barbata on ferroptosis in high dose group was obvious, while the inhibitory effect of the drug pair of Hedyotis diffusa and Sculellaria barbata on ferroptosis in low dose group was not obvious.

Therefore, the drug pair of Hedyotis diffusa and Sculellaria barbata has an inhibitory effect on ferroptosis in mice with acute liver injury induced by CCL4.

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RESEARCH ON THE PREVENTION AND TREATMENT OF CERVICAL SPONDYLOSIS WITH TRADITIONAL EXERCISE THERAPY BA DUAN JIN

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Abstract. This article provides an overview of the research on the mechanism of traditional exercise therapy Ba Duan Jin in the treatment and prevention of Cervicum-type cervical syndrome (CS). It also provides a preliminary summary of the current application of Ba Duan Jin in the treatment of Cervicum-type cervical syndrome. As a rehabilitation method other than medication, Ba Duan Jin has proved to be effective in improving microcirculation and accelerating metabolism, thereby playing an advantageous role in the prevention and treatment of Cervicum-type cervical syndrome.

Keywords: Traditional Exercise Therapy; Ba Duan Jin; Cervicum-Type Cervical Syndrome; Prevention and Treatment;Application

With the continuous development of modern society and the increase in work pressure, the incidence of cervical spondylosis is rising year by year. Cervical spondylosis is caused by ligament calcification in the neck, intervertebral joint degeneration, and osteophyte formation, which

stimulate and compress nerves, arteries, and the spinal cord. Cervicum-type cervical syndrome is a milder type, closely related to people's daily routines, and is more common, severely affecting patients' quality of life.

Cervicum-type cervical syndrome is often caused by poor lifestyle habits and prolonged desk work. The cervical spine is subjected to tremendous pressure due to prolonged periods in a static position, resulting in poor local blood circulation. This can lead to symptoms such as neck pain, neck muscle spasms, and stiffness in the neck. Some patients may also experience symptoms like migraines, dizziness, and tinnitus. Without effective intervention, the corresponding symptoms of nerves and blood vessels can occur in severe cases.

Ba Duan Jin, originating from the Northern Song dynasty in China, has a long history. It is a traditional therapeutic exercise guided by the theories of Traditional Chinese Medicine (TCM), focusing on the organs, meridians, and the balance of yin and yang. It has the effects of soothing the meridians, promoting blood circulation, and regulating the functions of the internal organs.Ba Duan Jin has positive effects on the musculoskeletal system, nervous system, cardiovascular system, and can improve microcirculation and accelerate metabolism. In recent years, it has been widely used due to its simplicity, effectiveness, appropriate intensity, and safety.Ba Duan Jin promotes functional recovery by adjusting breathing, physical movements, and psychology, and it has significant therapeutic effects in the rehabilitation and prevention of soft tissue and joint diseases. It holds certain advantages in the prevention and treatment of cervical spondylosis.

Objective

Ba Duan Jin has been found to have good clinical efficacy in the treatment of cervical spondylosis. Exploring its preventive and therapeutic effects on cervical spondylosis will contribute to the application of rehabilitation treatments for this condition.

Materials and methods

This article provides an overview of the research on the application of Ba Duan Jin in the prevention and treatment of cervical spondylosis, and analyzes its mechanisms of action on cervical spondylosis.

Results and discussion

Exercise therapy is an important non-pharmacological approach in the treatment of cervical spondylosis, and Ba Duan Jin primarily intervene in neck movements from the perspective of dynamic balance. By regulating joint activities and muscle contractions, it indirectly affects the equilibrium of the static system of the neck, promoting both intrinsic and extrinsic stability of the cervical spine, and preventing and treating cervical spondylosis.

Surface electromyography (sEMG) can accurately observe the impact of each movement in Ba Duan Jin on the muscle groups. It provides a clear understanding of the changes in muscle strength and neural activity before and after exercise. Research by Yu Jiale has shown that after practicing Ba Duan Jin, the muscle strength in the neck and shoulder region significantly increases, and there is a notable improvement in movement coordination and stability.

One study has shown that during the occurrence of cervical spondylosis, the body undergoes a stress response, leading to various physiological and pathological changes in the activation of the neuroendocrine-immune network system after alterations in the internal environment. It has been suggested that inflammatory signaling molecules such as interleukin-6 (IL-6) play an important role in the development of cervical spondylosis. Qiu Wenmei and colleagues discovered that practicing Ba Duan Jin significantly improves the percentage of CD4+ and NK cells, CD4+/CD8+ ratio, while significantly decreasing the percentage of CD8+ cells in patients. In terms of immune factors, the levels of TNF-α and IL-2 are significantly increased, while the level of IL-6 is significantly decreased, indicating that practicing Ba Duan Jin can regulate the endocrine system, anti-aging, and enhance immune function by upregulating immune factor levels and increasing the total number of immune cells.

To sum up, Ba Duan Jin is simple, not limited by time and place, with low intensity, long time aerobic mode and movement and movement characteristics, more suitable for cervical spondylosis patients long-term rehabilitation training, fully show the traditional Chinese medicine «both disease prevention, Chai defence» concept.Currently, the mechanism and explanation of the Eight Section Brocade exercise in preventing and treating cervical spondylosis are not yet fully understood, and further basic research is needed to provide stronger evidence based on clinical medicine for future studies on the preventive and therapeutic effects of the Eight Section Brocade exercise for cervical spondylosis.

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DISCUSSION ON THE ORIGINS AND CLINICAL SIGNIFICANCE OF THE THEORY "GYNECOLOGICAL DISEASE CAUSED BY WETNESS-HEAT"

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Abstract. In clinical practice, gynecological illness is a common disease among women. In Traditional Chinese medicine, there have been discussions about the gynecological illness since ancient times. From ancient times to the present, traditional Chinese medicine has been improving the diagnosis and treatment of gynecological diseases. Compared with modern medicine, traditional Chinese medicine has the advantages of good prognosis, fewer side effects, and low cost in the treatment of gynecological diseases This article explores the contemporary clinical significance of the theory of «dampness caused by heat» by systematically organizing ancient books and records. Which hope to provide new ideas for the clinical treatment of gynecological disease.

Keywords: morbid leucorrhea, gynecological disease, Wetness-heat, TCM.

The concept of «Daixia(morbid leucorrhea)» was first put forward in Huangdi Neijing. However. the concept of « gynecological disease (Daixia Bing)» first appeared in Sheng Nong's herbal classic. In the «Synopsis of the Golden Chamber» clarify the definition of ' gynecological disease ' as a general term for women's diseases, and the common causes of gynecological disease are defined by «deficiency, accumulation of cold, and accumulation of qi», and various diagnostic and treatment methods for Dai Xia disease are summarized in this book. The narrow concept of vaginal discharge disease, which first appeared in «General Treatise on the Cause and Symptoms of Diseases «, refers to gynecological diseases with abnormal vaginal discharge.

During the Jin and Yuan dynasties, doctors defined the etiology and pathogenesis of narrow sense of gynecological disease, and combined the etiology with «dampness». Liu Wansu is the first doctor to combine the disease with «dampness». Zhu Danxi advocates "eliminating dampness" as the first priority in treating gynecological disease. Until the Ming and Qing dynasties, the theory of febrile disease emerged, which linked dampness and heat with gynecological disease. Wang Mengying, a febrile disease expert in the Qing Dynasty, believed that there were fewer cases of gynecological disease caused by deficiency cold, so Ye Tianshi often used phellodendron amurense to treat it, which combined heat clearing and dampness removing with the treatment of gynecological disease.

Objective

By organizing ancient literature, this study summarizes the pathogenesis of gynecological disease and the treatment of it in traditional Chinese medicine, providing new ideas for the modern clinical treatment of integrated traditional Chinese and Western medicine.

Methods

Retrieve and organize the original texts of ancient classics and modern Chinese medicine related to gynecological disease through the «Chinese Medical Code» and CNKI.

Results and discussion

Looking back at the development process of traditional Chinese medicine's theory of gynecological disease, it is not difficult to see that the diagnosis, classification, and treatment of gynecological disease in traditional Chinese medicine are gradually improving over time. The different diagnostic and treatment methods of traditional Chinese medicine for gynecological disease in different eras are based on changes in climate and human environment. With the acceleration of life rhythm, the increase of life pressure, the change of diet structure, the reduction of exercise, it causes the increase of modern people's damp heat constitution and phlegm damp constitution, which leads to the increase of the incidence rate of gynecological disease. At present, the damp-heat type is still the most common among patients with this diseases. At the same time, in clinical practice, patients with gynecological disease are often accompanied by other diseases, which can lead to complex diagnosis. Therefore, it is currently necessary to explore the clear classification and more accurate application of integrated traditional Chinese and Western medicine methods for the treatment of gynecological disease.

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CLINICAL OBSERVATION OF THREE-PART ELECTROACUPUNCTURE IN THE TREATMENT OF MILD COGNITIVE IMPAIRMENT

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Abstract. 38 patients with mild cognitive impairment who met the inclusion criteria were selected. Selection of acupoints using the three-part method. The method of selecting acupoints adopts the three-part method, specifically selecting Baihui, Sishencong and Touwei acupoints on the head; The Fengchi and Gongxue were selected for the acupoints on the neck; Shenshu and Huiyang are selected as lumbosacral acupoints. After acupuncture at the above acupoints, electroacupuncture was connected. The frequency band was selected as sparse wave, and the frequency was 15 Hz. The cognitive function and multidimensional memory function of the patients were evaluated by Montreal cognitive assessment scale (MoCA) and Rivermead behavioral memory ability test version 2 (RBMT-ii) before and after treatment.

Keywords: Electroacupuncture, Mild cognitive impairment, Acupuncture, Montreal cognitive assessment scale, Rivermead behavioral memory ability test version 2

Mild cognitive impairment (MCI) is a transitional state between normal and dementia. According to relevant studies, nearly 13.1% - 42.0% of the elderly suffer from MCI worldwide, and 5% - 17% of MCI patients progress to Alzheimer's disease (AD) every year[1,2]. It can be seen that MCI is not only the early stage of AD, but also the key target of prevention and treatment. Therefore, the intervention treatment in MCI stage can effectively prevent and delay the progression of the disease, so as to reduce the incidence of AD and reduce the economic burden of patients and society. The author used three-part electroacupuncture to treat 38 patients with mild cognitive impairment, which is reported as follows.

Objective

Observation on the clinical efficacy of three-part electroacupuncture in the treatment of MCI.

Materials and methods

The 38 MCI patients were from the First Affiliated Hospital of Heilongjiang University of traditional Chinese medicine, including 18 males and 20 females. The acupoints on the head are Baihui, Sishencong and Touwei; The acupoints on the neck are the Fengchi and Gongxue (the Gongxue is located 2 cm below the Fengchi and is flush with the lower lip); The lumbosacral acupoints are Shenshu and Huiyang. The patient was placed in the lateral decubitus position, and the local skin of acupoints was routinely disinfected. After acupuncture and obtaining the sense of acupuncture, Baihui exercises the tonic method, and the remaining points are connected to KWD-808 I electronic pulse acupuncture instrument. The Zuo and You shencong and ipsilateral Touwei are each in one group, the ipsilateral Fengchi and Gongxue are each in one group, the ipsilateral Shenshu and Huiyang are each in one group, and the positive pole is above and the negative pole is below when the above 6 groups of wires are connected. The frequency band of electroacupuncture is sparse

wave with a frequency of 5 Hz. The intensity of electroacupuncture at the head and neck is based on the slight shaking of the head and can be tolerated, and the intensity of electroacupuncture at the lumbosacral part is based on the slight shaking of the skin around the acupoints and can be tolerated by the patient. If the patient feels that the intensity of stimulation is weakened during the acupuncture process, it should be adjusted in time. The duration of electroacupuncture treatment was 30 min each time, once a day, from Monday to Saturday, and rested on Sunday, for a total of 4 weeks.

Results and discussion

After treatment, the scores of MOCA and RBMT-II were improved compared with those before treatment (P<0.01). Cognitive dysfunction includes mild stage and severe stage, the former is called MCI, and the latter is called ad. It can be seen that MCI is the prodromal stage of ad or dementia and the key period of dementia prevention and treatment. Traditional Chinese medicine also believes that MCI is the initial stage of «dementia». The nature of the disease is deficiency in origin but excess in excess, kidney deficiency in origin and blood stasis in blood. Therefore, according to the treatment principle of «activating blood circulation, removing blood stasis, dredging collaterals, tonifying the kidney and filling the essence of lean marrow», three electroacupuncture methods were selected in this study, and the acupoints were selected from the head, neck and lumbosacral acupoints, corresponding to three aspects of intelligence, activating blood circulation and tonifying the kidney respectively. After obtaining the acupuncture sensation, electroacupuncture was applied to treat the symptoms by Electroacupuncture at the head and nape acupoints to activate blood circulation, remove blood stasis and unblock collaterals, and electroacupuncture at lumbosacral acupoints to tonify the kidney and fill the marrow. In this study, three part electroacupuncture was selected to treat MCI with good clinical efficacy, which can improve patients' cognitive function, and the operation is safe and simple, which is of great significance to prevent and delay the development of the disease.

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TREATING DRY EYES FROM THE SHAOYANG THEORY

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Abstract. Tears are produced by fluid, and metabolic disorders of qi, blood and fluid lead to dry eyes because the tears cannot moisten the eyeballs. Dry eye patients with systemic symptoms of Shaoyang syndromes have poor therapeutic effects if they are treated conventionally. When the treatment is based on the theory of Shaoyang, satisfactory clinical results can often be obtained.This article summarises Yao Jing's experience in treating dry eye from the Shaoyang perspective by collating the etiology and pathogenesis of dry eye and its characteristic treatments.

Keywords: Dry eye; Chinese medicine; Shaoyang; Fluid

Dry eye is a chronic ocular surface disease caused by multiple factors, which is an instability of the tear film or an imbalance of the microenvironment of the ocular surface caused by abnormalities in the quality, quantity and kinetics of tears[1]. The incidence of dry eye in China ranges from 6.1 per cent to 59.1 per cent, and is on the rise year by year[2]. Therefore, the search for an effective treatment for dry eyes has become an important research direction nowadays. Dr Yao Jing summed up years of clinical experience and found that dry eye patients with systemic symptoms dominated by the Shaoyang syndrome, using the conventional treatment of dry eye, the therapeutic effect is poor, while the treatment of dry eye from the theory of Shaoyang, often can achieve satisfactory clinical results.

Objective

Exploring effective treatments for patients with dry eye whose systemic symptoms are predominantly of the Shaoyang syndrome.

Materials and methods

The meaning of Shaoyang includes two aspects: one refers to the twelve meridian systems of the hand and foot Shaoyang meridians. The second refers to the six-meridian dialectic system of Shaoyang disease. The Huangdi's Classic[3] said: The exterior of the syncopated Jueyin is called Shaoyang, shao yang root from the orifices of Jueyin. Therefore, Taiyang for the open, Yangming for the closure, Shaoyang for the centre. Shaoyang is the pivot of the opening and closing of the body's yang qi, and is the central link and key part of the three yangs.

The Huangdi's Classic[3] said: «all astringent dry, dry strength chafing, are all belong to the dry», therefore, the abnormalities in the production, excretion and distribution of fluid can lead to the occurrence of dry eye, and gas, blood and fluid are mutually generating and transforming each other, so the dynamic imbalance of gas, blood and fluid is the fundamental cause of the imbalance of tear film homeostasis, which is the core mechanism leading to dry eye, and the causative factors are mainly the evils of dryness and heat, the deficiency of qi and blood and the lack of smoothness of the tri-jiao.

The etiology of patients with dry eyes whose systemic symptoms are mainly due to Shaoyang syndrome is that the cardinal organs are blocked, the qi of the meridians is not flowing smoothly; the fire of the gall bladder interferes with the eyes by following the meridians and burns the fluid; the spleen and stomach are involved, and there is a lack of source of qi and blood. Therefore, it is proposed that the treatment of dry eye patients with systemic symptoms dominated by the Shaoyang syndrome should be based on the Shaoyang theory, with the method of dredging the tri-jiao, clearing the gallbladder and laxing the fire, and dredging the liver and nourishing the blood, which provides a new concept for the treatment of dry eye.

1 Promoting Qi circulation, relieving depression and dredging the tri-jiao

Qi stasis at the Shaoyang and Poor circulation of the tri-jiao lead to stagnation of fluid, which cannot be transmitted to the surface of the eyes to produce tears. Therefore, the treatment should be to promote the flow of qi to relieve stagnation and dredge the tri-jiao, with Xiao Chaihu Tang as the basic formula, or add Paeoniae Alba and Fructus Aurantii, etc., to regulate qi of the Shaoyang pivot, to restore the flow and transmission of fluid, and upward to nourish the liver's clear orifices, moistening the eyeballs.

2 Clearing the liver and gallbladder, dispelling fire and nourishing yin.

When the liver and gallbladder are overheated, it reduces the fluid, and the tears are not enough to maintain the eye surface, resulting in dryness and discomfort of the eyes. Therefore, it is necessary to clear the liver and gallbladder, dispel the fire and nourish the yin, and the formula is based on the formula of Longdan Xiegan Tang, with Gypsum, Rhizoma, Radix Scrophulariae and Radix Ophiopogonis as the base prescription, so as to make the heat of the liver and gallbladder subside, to protect the fluid, and to nourish the eyes and to cure the dry eyes caused by the heat of the liver and gallbladder at the root of the problem.

3 Divert the liver and stomach, nourish blood and brighten the eyes

The Shaoyang meridian is not smooth, resulting in liver qi encroaching on the stomach, and the spleen and stomach being involved, unable to transform water and grains into qi, blood and fluids to moisten the eyes. Dry eyes due to this cause should be treated by unblocking liver qi, strengthening the spleen and stomach, and nourishing blood and qi. At this time can use Danzhi Xiaoyao San for treatment, increase prepared rehmannia root, Ligusticum Wallichii, Codonopsis pilosula, Fructus Aurantii and other medicines, let qi generate Jin, blood transforms Jin, tear fluid to get the source of biochemical, eyeballs to be moistened and nourished, from the root to relieve the symptoms of dryness and discomfort of the eyes.

Results and discussion

The Shaoyang meridian and the eye are closely connected physiologically. By making the tri-jiao smooth, clearing the gallbladder and fire, and dredging the liver and nourishing the blood, satisfactory results were achieved when treating patients with dry eyes whose systemic symptoms were predominantly Shaoyang syndrome. This demonstrates the unique advantages of Chinese medicine in treating dry eyes, and practitioners can further explore the potential of Chinese medicine to discover more and more effective ways and methods for treating dry eyes.

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CLINICAL OBSERVATION OF ACUPUNCTURE CUPPING COMBINED WITH HEAD ACUPUNCTURE THERAPY IN THE TREATMENT OF ALZHEIMER'S DISEASE

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Abstract. Alzheimer's disease (AD), equivalent to dementia in traditional medicine, is a degenerative disease of the central nervous system that occurs in early old age and is characterized by progressive cognitive dysfunction and behavioral impairment. In clinical practice, patients often present with memory disorders, aphasia, agnosia, personality and behavior changes [1]. With the continuous exploration of the understanding of AD, it is found that AD can be divided into pre-dementia stage and dementia stage, and dementia stage can be divided into light, medium and severe stages according to the degree of cognitive damage[2]. AD is one of the most common chronic diseases in old age, and Chinese studies have shown that the incidence of AD in people aged 65 and above is as high as 3.21%. In clinical practice, cholinesterase inhibitors, such as Donepezil and capalatine, are often used for treatment [3]. Although the simple drug can improve the cognitive function and delay the disease to some extent, the long-term effect is not good. In recent years, the intervention of traditional Chinese medicine has provided new treatment methods and ideas for the treatment of AD. The purpose of this study was to observe the clinical effect of head acupuncture therapy on improving the symptoms of AD..

Keywords: AD; Cholinesterase inhibitors; Head acupuncture therapy; Clinical effect; prognosis

Objective

To observe the clinical efficacy and prognosis of cognitive function, agnosia and imbalance of balance in patients with AD treated by acupuncture combined with cupping therapy.

Materials and methods

In clinical application, the treatment of Alzheimer's disease with acupuncture and cupping combined with head acupuncture. Disposable blood collection needle, blood collection pen and a number of sterilized cotton balls are used to puncture collaterals. Cupping is applied on the acupuncture points, the strength is subject to the patient's tolerance, the time is 10 minutes porridge is appropriate, when the local swelling, the skin turns purple, lift the cupping, wipe clean with cotton balls. Traditional medicine believes that dementia is due to the lack of the marrow sea, the loss of the divine machinery caused by the disease, the back point and the viscera of the human body correspond, so the acupuncture points selected Dazhui, bilateral heart Shu, liver Shu, spleen Shu, Shenshu. Baihui and Sishencong were selected to puncture the head needle 1 inch flat backward, and at the same time, they were quickly rotated for 2 min, with a frequency of about 100 times /min. The emotional area of bilateral temporal area, the balance and visual area of bilateral occular area, and the bilateral Fengfu, Tianzhu, Wangu and Yifeng were connected by Zhisan acupuncture and electric acupuncture with a density wave, and the needles were left for 30 min.

Results and discussion

There are various therapeutic methods for AD and they all have certain curative effects. Although taking cholesterase inhibitors can improve the cognitive function and delay the disease to a certain extent, AD has a long course of disease and there are many adverse reactions after long-term use. Acupuncture and cupping combined with head acupuncture therapy has significant efficacy in the treatment of AD, less adverse reactions, relatively low cost and easier for patients to accept treatment.

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COMPARISON OF TREATMENT METHODS OF TRADITIONAL MEDICINE BETWEEN RUSSIA AND CHINA

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Abstract. In health care, Traditional medicine plays a vital role, which has rich theoretical basis and clinical practice experience. This article compares the similarities and differences between Russia and China's Traditional medicine by consulting published literature. It has an important reference value for studying the history of interaction and integration between Ethnomedicine, and in order to provide new ideas for the treatment of Traditional medicine..

Keywords: traditional medicine;therapeutic method;compare

Traditional medicine refers to a variety of medical knowledge systems that have developed independently before western biomedicine. Many traditional healthcare systems are built on sound institutional foundations and centuries of practice by therapists1. With the friendly development of China Russia relations, Russia has a strong interest in the time-honored traditional Chinese medicine, and the two countries have actively carried out exchanges and cooperation in medical and health care, especially in Traditional medicine. This article will systematically review the treatment methods of Traditional medicine in the two countries and compare their similarities and differences in order to strengthen exchanges, learn from each other and make common progress.

1. Russian Traditional medicine

Traditional medicine in Russia can be generally divided into two categories. One is the local Traditional medicine. Herbal medicine has a long history of use in Russia.They believe in plant therapy. They usually use herbs to treat diseases, such as Hypericum perforatum, Rubus idaeus, duckweed, etc. to treat skin diseases2.In addition, Russia has abundant mineral and hot spring resources, and local people often drink mineral water and soak in hot springs to treat diseases; In some areas, magic healing or Faith healing is performed by wizards3. The other is Traditional medicine introduced from other countries, such as Indian yoga therapy, Chinese traditional medicine acupuncture and moxibustion, Tibetan medicine. With the establishment of diplomatic relations between China and Russia, Chinese Tibetan doctors went to Russia to open medical clinics and treat patients with Tibetan medicine. The curative effect is quite remarkable, which is loved by Russians; Russia sent doctors to China to study acupuncture and moxibustion. At present, acupoint therapeutic apparatus and acupuncture therapy are more popular with patients in Russia4.

2. Traditional Chinese medicine

The origin of Traditional medicine is mostly related to religious beliefs. At first, doctors often served as witches, which is what we call «medicine and witchcraft». However, with the development of productivity, Ethnomedicine has separated from religious beliefs and gradually formed an independent medical system. China has rich and diverse resources of Traditional medicine. In the course of the development of the Chinese nation for thousands of years, unique Traditional Chinese medicine and Ethnomedicine have been formed. At present, taking Traditional Chinese medicine as the mainstream, it has formed a theoretical system with «Yin Yang and Five Elements» as the core and «overall theory» and «syndrome differentiation and treatment» as the basic characteristics. Traditional Chinese medicine, acupuncture, moxibustion, massage, cupping, Qigong, dietotherapy, Tonic Diet and other different treatment methods are often used in the treatment to achieve the therapeutic purpose of harmonizing the balance of yin and yang in the human body5.

3. Differences and Similarities between the Two Systems

By comparing Traditional medicine in Russia and China, we find that both systems have a history of witch medicine treatment, and both use herbs and acupuncture and moxibustion. However, in comparison, China's treatment methods are more extensive than those of Russia. This not only reflects the collision and fusion of cross national academic ideas at that time, but also reflects national characteristics.

Results and discussion

Both Russian Traditional medicine and Chinese Traditional medicine have gradually developed into a relatively complete theoretical system with strong regional characteristics through long-term practical experience. In history, Traditional medicine has played an indelible role; In modern society, we

should give full play to the advantages of Traditional medicine in diagnosing and treating diseases, so as to improve the service ability of Traditional medicine. The similarities and differences between the two medical systems will contribute to further exchanges and cooperation and common progress.

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ACUPUNCTURE TASK-STATE FUNCTIONAL MAGNETIC RESONANCE IMAGING STUDY ON TAIXI ACUPOINT IN PATIENTS WITH MILD COGNITIVE IMPAIRMENT

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Abstract. Mild cognitive impairment (MCI) is an intermediate state between normal aging and dementia, characterized by mild memory decline while other cognitive functions remain relatively intact or minimally impaired. A survey has shown that MCI is converting into Alzheimer's disease (AD) at a high rate of 10% to 15% per year. Patients with MCI gradually lose their cognitive abilities and functional independence, resulting in a significant social and economic burden on public health care. Therefore, preventing or delaying the progression of MCI is of utmost importance.

Keywords: Acupuncture; Task-state; Functional magnetic resonance imaging; Mild cognitive impairment; Taixi acupoint.

Acupuncture has been widely used as a therapeutic method for various neurological diseases, including MCI and AD. Multiple investigations have confirmed that acupuncture is more effective than drug therapy in improving cognitive function and enhancing daily living abilities in AD patients. Furthermore, acupuncture can enhance the efficacy of medication while reducing adverse drug reactions, leading to better patient outcomes. However, its underlying neurophysiological mechanisms are still under exploration. With technological advancements, non-invasive functional magnetic resonance imaging (fMRI) has provided new methods and insights into the central nervous system physiology involved in acupuncture.

Task-state fMRI refers to the collection of relevant magnetic resonance images while subjects perform specific tasks, making it a common method for fMRI studies involving acupuncture at acupoints. In this study, the author applies this method to observe changes in brain neural activity at the Taixi acupoint in MCI patients, aiming to explore the neural regulatory mechanisms of acupuncture on cognition-related brain regions in MCI patients.

Objective

Using task-state functional magnetic resonance imaging (fMRI) technology, this study aims to observe changes in brain neural activity at the Taixi acupoint in patients with mild cognitive impairment (MCI) and explore the neural regulatory mechanisms of acupuncture on cognition-related brain regions.

Materials and methods

Sixteen patients with mild cognitive impairment were selected for a 16-minute task-state experimental design. A 3.0T MRI scanner was used to collect 8 minutes of baseline resting-state data, followed by 8 minutes of acupuncture task-state data at the Taixi acupoint. The data underwent post-processing and general linear model analysis. Based on voxel-level $P = 0.001$ (uncorrected) and cluster-level $P < 0.05$ (FWE-corrected), brain functional areas with altered neural activity during acupuncture in MCI patients were obtained.

Results and discussion

Acupuncture at the right Taixi acupoint in MCI patients resulted in positive activation in the left orbital part of the inferior frontal gyrus (BA47), right triangular part of the inferior frontal gyrus (BA45), left opercular part of the inferior frontal gyrus (BA44), right insula (BA13), left superior temporal gyrus (BA38), right middle temporal gyrus (BA20), right anterior and posterior lobes of the cerebellum, and right thalamus. Negative activation was observed in the left posterior cingulate gyrus (BA31), left precuneus (BA7), and right hippocampus.

Acupuncture at the Taixi acupoint in MCI patients exerts an immediate effect by directly influencing neural activity in cognition-related brain regions and modulating pathological imbalances in cognitive circuits. This may represent a potential neural mechanism underlying acupuncture's therapeutic effects on MCI.

In summary, the immediate effect of acupuncture at the Taixi acupoint can directly influence neural activity in cognition-related brain regions in MCI patients and modulate the pathological imbalances in cognitive circuits. The author speculates that these potential neurophysiological mechanisms underlying the acupuncture effect may serve as the basis for its therapeutic action in treating MCI. However, whether the subsequent effects of acupuncture are associated with its presence and consistency remain to be further validated through future experimental studies.

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FMRI STUDY ON BRAIN ACTIVATION AREA OF ACUPUNCTURE AT CHONGYANG AND GONGSUN GROUP

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Abstract. Objective To compare the brain activation effects of acupuncture at Chongyang, Gongsun group and single acupoints by using fMRI technique, and to analyze the central mechanism. Methods Sixteen healthy young volunteers who met the inclusion criteria were selected to collect fMRI data of right Chongyang, Gongsun group and their single acupoints. DPARSF, SPM12 and XJVIEW software were used for data preprocessing and statistical analysis. Results Compared with acupuncture at Chongyang, acupuncture at Chongyang and Gongsun groups acupoints significantly activated brain areas: left superior frontal gyrus(BA9), posterior cerebellar lobe, middle frontal gyrus, occipital gyrus, cuneiform lobe(BA17), insula, right talus gyrus(BA17), posterior cerebellar lobe, cuneiform lobe and posterior cingulate gyrus(BA30). Compared with acupuncture at Gongsun, acupuncture at Chongyang and Gongsun group acupoints significantly activated brain areas.Conclusion Acupuncture at Chongyang and Gongsun group acupoints has wider brain activation areas than that at single point, which is not a simple superposition of brain activation at two single points.

Keywords: Acupuncture Chong Yang acupoint Gong Sun acupoint Brain Functional magnetic resonance imaging

Chongyang (SP-4) and Gongsun (SP-4) belong to the principal-collateral point combination method in the Original Collaterals Matching Points technique. The 'Original Collaterals Matching Points' is an important method in traditional Chinese acupuncture for selecting and combining acupoints to treat diseases. Each meridian has its own primary (original) points and collateral (connecting) points. Chongyang is the primary point of the Stomach Meridian of Foot Yangming, while Gongsun is the collateral point of the Spleen Meridian of Foot Taiyin.

Traditional Chinese medicine believes that the 'Original Collaterals Matching Points' can harmonize and connect the internal and external, and play a coordinating role in the relationship between meridians and organs. When used together, they enhance the therapeutic effect. However, the specific mechanism of action is still

not clear. Functional Magnetic Resonance Imaging (fMRI) technology, due to its high resolution, non-invasiveness, and strong repeatability, has been widely used by scholars both domestically and internationally in research related to acupuncture points.

Based on the high incidence of digestive system diseases and the frequent application and significant effectiveness of the Original Collaterals Matching Points technique in clinical practice.

Objective

This study selected the two meridians - the primary point of the Stomach Meridian and the collateral point of the Spleen Meridian - as the research subjects. By using fMRI technology, the study aims to explore the functional brain activation areas of acupuncture at Chongyang and Gongsun points and analyze their therapeutic mechanisms.

Materials and methods

Sixteen healthy volunteers (10 males and 6 females) who met the inclusion criteria completed the study. The inclusion criteria were as follows: moderate body size, aged between 24 and 32 years, all right-handed individuals, females not in their menstrual period, no contraindications for magnetic resonance imaging (MRI) scanning, no history of definite external injuries, no history of neurological or psychiatric impairments, no smoking, alcohol consumption, or drug use, no history of medication intake within the past 7 days, no adverse psychological reactions to acupuncture (such as needle phobia or hematoma), head movement parameters with translation less than 1.5 mm and rotation less than 1.5°. The study sequence was randomized, and all 16 subjects received acupuncture at the right Chongyang (SP-4) and Gongsun (SP-4) single points and their respective combination points. The acupuncture depth was set between 8 to 13 mm. Each participant underwent three acupuncture sessions, with a 7-day interval between each session.The scanning process followed a block design, using the «OFF-ON-OFF» pattern, which included 4 needle retention periods (R1, R2, R3, R4) and 3 continuous 1-minute needle manipulation periods (S1, S2, S3). The needle manipulation technique used was the even supplementing and reducing method, with a rotation angle of 180°±20° and a frequency of 60 to 100 times per minute, aiming to achieve a moderate sensation of soreness and distension.

Results and discussion

Based on the research findings, acupuncture at the combination points of Chongyang (SP-4) and Gongsun (SP-4) activates brain regions more extensively compared to the acupuncture at their respective single points. This suggests that the therapeutic effects of needling at Chongyang and Gongsun combination points may be related to their coordinated activation of brain regions, rather than simply the sum of the individual effects of needling at each point separately.

In conclusion, while the research provides valuable insights into the brain activation patterns resulting from acupuncture at specific points, more comprehensive and controlled studies are needed to establish a clearer understanding of the mechanisms underlying the therapeutic effects of acupuncture on various health conditions.

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PROTECTIVE EFFECT OF PRUNELLA VULGARIS ON ACUTE LIVER INJURY IN MICE BY ENDOPLASMIC RETICULUM STRESS GRP78/IRE1A/JNK PATHWAY

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Abstract. The traditional Chinese medicine Prunella vulgaris is a heat-clearing and detoxifying medicine with a pungent, bitter, and cold taste, returning to the liver and gallbladder meridians, and used as medicine for its dried ears. It clears liver fire, clear eyes, soft firmness, and loose knots. Clinically, it is often used to treat liver injury. The pathogenesis of acute liver injury is complex, including inflammatory reaction, oxidative stress, endoplasmic reticulum stress, apoptosis, and autophagy.In this study, the mouse model of acute liver injury induced by CCL4 was used to explore the role of Prunella vulgaris in the treatment of liver injury and the stress pathway of the endoplasmic reticulum to provide a theoretical basis for the clinical prevention and treatment of liver diseases.

Keywords: Prunella vulgaris; Acute liver injury; Endoplasmic reticulum stress, GRP78, IRE1α, JNK

Materials and methods

Forty-eight male and female ICR mice were divided into blank group, model group, positive group, Prunella vulgaris high, middle, and low dose groups, and the model of acute liver injury induced by CCL4 was established. the contents of ALT, AST in serum, and MDA and SOD in liver tissue were detected by ELISA; the pathological changes in the liver were observed by HE staining; the pathological changes of organelles of hepatocytes were observed by transmission electron microscope.

Materials and methods

Under the light microscope, hepatocyte swelling, a large number of inflammatory cell infiltration, different degrees of necrosis, hepatic sinusoid congestion, and abnormal tissue structure could be seen in the model group.

Prunella vulgaris groups had different relief of hepatocyte injury, hepatocyte swelling was relieved, the degree of inflammatory cell infiltration and necrosis decreased, and the structural morphology tended to be normal.

Under the electron microscope, the nucleus of the model group shrank, the mitochondria swelled, the mitochondrial crest was deformed, the endoplasmic reticulum expanded and degranulated seriously, and the number of endoplasmic reticulum decreased.

The morphological structure of mitochondria and endoplasmic reticulum tended to be normal in the high-dose Prunella vulgaris group, and there were still a few mitochondria and endoplasmic reticulum swelling in the high-dose group.

Results and discussion

Prunella vulgaris has a protective effect on CCL4-induced acute liver injury in mice, which can improve the antioxidant capacity of mice and alleviate liver pathological injury in mice.

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EXPLORING THE ANTIOXIDANT STRESS MECHANISM OF HEDYOTIS DIFFUSA-SCULELLARIA BARBATA HERBA IN MICE WITH ACUTE LIVER INJURY INDUCED BY CCL4 BASED ON THE NRF2/HO-1/GPX4 SIGNALING PATHWAY

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Abstract. In order to explore the antioxidant effect of Hedyotis diffusa-Scutellariae barbate Herba (Hd-Sb) on acute liver injury, the mouse model of acute liver injury induced by carbon tetrachloride (CCl4) was established, and the antioxidant mechanism of Hd-Sb on acute liver injury in mice was studied.

Keywords: Hedyotis diffusa, Scutellariae barbara herba, oxidative stress, Nrf2, acute liver injury

Oxidative stress in organisms is related to the imbalance between the production and clearance of reactive oxygen species (ROS). Under normal circumstances, the oxidation system and antioxidant system in the body are in a state of dynamic balance. When various factors lead to the imbalance of ROS and antioxidants in the body, the body will be in a state of oxidative stress. Oxidative stress is involved in the occurrence and development of liver injury and is considered to be the pathophysiological basis of acute and chronic liver diseases. Acute liver injury is mainly characterized by metabolic disorders, homeostasis imbalance, and loss of liver function. Mild acute liver injury can gradually heal or turn into chronic liver injury, which can lead to liver fibrosis, liver cirrhosis, or liver cancer. severe acute injury can develop into acute liver failure with high mortality. Traditional Chinese Medicine believes that heat toxin is one of the important reasons for the occurrence and development of acute liver injury, so heat-clearing and detoxification is one of the common rules for the treatment of acute liver injury. Hedyotis diffuse and Scutellaria barbata Herba are combined as monarch medicine, which has the effect of clearing heat and detoxification, invigorating qi, and invigorating the spleen. The compatibility of the two medicinal materials is the use of Xiangxu in the compatibility of the seven emotions of traditional Chinese medicine, which can enhance the effect of inhibition of cancer, detoxification, sterilization, and anti-inflammation.

Objective

To investigate whether Hd-Sb can improve oxidative stress in mice with CCl4 acute liver injury by regulating Nrf2/HO-1/GPX4 signal pathway.

Materials and methods

60 ICR mice were randomly divided into 6 groups: control group, model group, Hd-Sb high, middle, and low dose groups, and biphenyl diester positive group. After the acute liver injury model was established by CCl4, the mice were killed, the biochemical indexes of serum and liver were detected, the expression level of oxidation factor GSH in serum was detected by ELISA, and the effect of Hd-Sb on the expression of key genes and proteins of Nrf2/HO-1/GPX4 pathway in liver tissue of mice was detected by Western blotting.

Results and discussion

The results showed that compared with the model group, Hd-Sb significantly decreased the activities of TBIL and γ-GT in the serum of mice induced by CCl4, and increased the expression level of PA, which indicated that Hd-Sb could improve the liver injury induced by CCl4 to some extent. In addition, it was found that Hd-Sb could increase the expression level of GSH in liver tissue induced by CCl4, which indicated that Hd-Sb had a certain antioxidant effect. Compared with the model group, Hd-Sb can significantly increase the expression levels of Nrf2, HO-1, and GPX4 proteins, and then protect mice from acute liver injury induced by CCl4. The results of this study show that Hd-Sb can activate the Nrf2 gene, promote the expression of antioxidant factors, enhance the antioxidant capacity of mice with acute liver injury induced by CCl4, and then alleviate acute liver injury.

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ZHOU YABIN IDENTIFIED SEQUELAE OF COVID-19 FROM POSITIVE DEFICIENCY AND POISON

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Abstract. Summarize Professor Zhou Yabin's experience in treating the sequelae of COVID-19. Zhou Yabin believes that the sequelae of COVID-19 have many similarities with the volt poison theory in terms of etiology, pathogenesis, and disease characteristics. In terms of etiology, the sequelae of COVID-19 can be due to external sensation or internal injury; The disease machine is positive and poisonous; In terms of disease, it shows the characteristics of latent, lingering, dark and fickle. The innovative proposal of treating the sequelae of COVID-19 with the principle of dispelling evil and detoxification, invigorating qi and supporting righteousness has good results, showing the clinical value of traditional Chinese medicine in the prevention and treatment of the sequelae of COVID-19.

Keywords: COVID-19, Sequelae, Positive deficiency and Poison

The sequelae of COVID-19 are the collective name of all symptoms, symptoms and adverse reactions that last for a certain period of time after infection with COVID-19 virus. It is estimated that at least 650 million people worldwide have long-term COVID, and 10% of people infected with SARS-CoV-2 develop long-term symptoms [1,2]. Studies have shown [3-5] that a large number of COVID-19 patients can develop persistent damage to the lungs, cardiovascular, nervous system, gastrointestinal, blood, kidney, and endocrine after acute infection, and varying degrees of disease.

Novel corona virus pneumonia mainly based on the symptoms of lung system, and also contains other visceral diseases, with the characteristics of rapid onset, rapid transmission, severe disease, and easy to enter the heat and so on. Traditional Chinese medicine adopts dialectical treatment combined with a holistic view to treat diseases, and with the advantages of multi-component, multi-target and multi-pathway of traditional Chinese medicine, the treatment of diseases focuses on the combination of conditioning the body, which has unique advantages for the treatment of this disease.

Objective

Summarize Zhou Yabin's experience in treating the sequelae of COVID-19. Provide new ideas for the prevention and treatment of the sequelae of COVID-19.

Materials and methods

Analyze the characteristics of the sequelae of COVID-19 from the theory of positive deficiency and toxicity.Summarize Professor Zhou Yabin's understanding of the etiology and pathogenesis of the sequelae of COVID-19, the treatment principles, and the experience of clinical evidence addition and subtraction.

Results and discussion

Zhou Yabin believes that the onset of the sequelae of COVID-19 has similarities with the theory of poisoning. In addition, the onset of the sequelae of COVID-19 is in the internal organs, meridians, qi, blood and fluid, which can be described as ubiquitous, and is similar to the skin, meridians, and membranous origins. In addition, the onset of fuxin is clinically latent, lingering, dark and fickle[6], which is similar to the pathogenesis of the sequelae of COVID-19.

Zhou Yabin believes that positive deficiency is the basis of poison, and the treatment of new corona virus pneumonia uses a large number of antipyretic and antidote drugs to damage the lungs and spleen, and the right qi is deficient. The epidemic virus has been lying in existence for a long time, and the qi of the epidemic poison secretly consumes the clear qi of the heart and lungs, burns the heart and lungs, and the humidity and heat are pervasive, and the course of the disease is lingering and difficult to heal.

Zhou Yabin believes that the poison produced by the sequelae of COVID-19 is mainly caused by the cementation of qi depression, phlegm obstruction, and blood stasis, so it should be mainly based on opening and regulating qi, dissolving phlegm and dispersing knots, and activating blood to remove stasis. Zhou Yabin believes that the deficiency of healthy qi is the premise of the sequelae of COVID-19, so the help of qi is based on nourishing the lungs, strengthening the spleen, nourishing the heart and benefiting the kidneys. Zhou Yabin believes that the deficiency of healthy qi is the premise of the sequelae of COVID-19, so the help of qi is based on nourishing the lungs, strengthening the spleen, nourishing the heart and benefiting the kidneys.

Zhou Yabin distinguishes and treats the sequelae of COVID-19 from the theory of positive deficiency and poison, takes the right and dispels evil as the method, nourishes the lungs, strengthens the spleen, benefits the kidneys, nourishes the heart to solidify the roots, promotes qi, invigorates blood, and dissolves phlegm to treat the symptoms, and

the specimens work part-time, in order to provide new ideas for the prevention and treatment of the sequelae of COVID-19. While improving syptoms, regulating the patient's physique is worth inheriting and excavating.

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PROGRESS IN CLINICAL RESEARCH ON AURICULAR ACUPRESSURE THERAPY FOR DEPRESSION

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Abstract. As a kind of intractable mental disease, depression affects the life and health of patients for a long time. Its treatment has long been based on antidepressant drugs. In recent years, with the development of traditional Chinese medicine, auricular acupressure has been increasingly applied to the treatment of depression as an adjunctive therapy, and has achieved good results. This paper analyzes the relevant literature in the past 10 years, and describes the progress of auricular acupressure on the treatment of depression.

Keywords: Auricular point-pressing, Auricular acupressure, depression

Depression is a common mental disorder characterized by mood loss. In addition, there are other cognitive, physical and behavioral disorders. Clinically, depression is divided into primary and secondary depression. Primary depression refers to the absence of factors that induce the onset of the disease, and is characterized by a lack of interest, bad mood, sullenness and prolonged listlessness; it has a higher incidence rate and is hereditary to a certain extent. Secondary depression is caused by specific factors, mostly occurring in women after childbirth, perimenopausal women, post-stroke depression, the elderly and long-term chronic diseases. Currently, antidepressants are the mainstay of treatment for depression in Western medicine. Generally, serotonin reuptake inhibitors or tricyclic antidepressants are used. Although these drugs are highly effective, they have serious side effects and strong dependence once they are discontinued. Research has proven that acupuncture is comparable to fluoxetine, amitriptyline and other Western medications, and has the advantages of being safe, reliable, efficacious, with few side effects, and inexpensive, and that auricular acupuncture, as a branch therapy of acupuncture, has great potential for the treatment of depression.

Objective

By describing the progress of clinical auricular acupressure therapy for depression in recent years, such as the combination of therapy, acupoint selection and other clinical applications, with a view to providing reference and new horizons for clinical workers in the treatment of depression.

Materials and methods

We searched and analyzed the literature with the keywords «depression», « Auricular point-pressing « and « Auricular acupressure « on China Knowledge Network and PubMed during the period of 2023-2013.

Results and discussion

A total of 55 pieces of related literature were searched, and 29 pieces of literature unrelated to the present study were excluded, resulting in a total of 26 valid pieces of literature, including 19 pieces of literature in Chinese (accounting for 73.07% of the total literature) and 7 pieces of literature in English (accounting for 26.92% of the total literature).

In the relevant literature collected and collated, auricular acupressure is often selected as an adjunctive therapy for the treatment of depression in postpartum depression, adolescent depression,

post-stroke depression, essential hypertension with depression, type 2 diabetes mellitus combined with depression, geriatric depression, breast cancer depression, and Parkinson's disease combined with depression, respectively. It has also shown benign results as a pure therapy for the treatment of depression and related symptoms. Clinically, it is often used in combination with acupuncture, herbal tonics, psychological counseling, and antidepressant drugs such as sertraline hydrochloride. Auricular acupressure therapy for depression is based on acupoints such as Shenmen, subcortical, liver, heart, kidney, sympathetic, and anterior pituitary, which are mainly located in the representative areas of the internal organs in the auricular cavity. The study showed that after four weeks of Auricular acupressure combined with antidepressant treatment, the serum 5-HT level of the test subjects with depression was significantly higher than that of the control group treated with Western medicine alone. In a study of postpartum depression, auricular acupressure was shown to be effective in reducing postpartum blues and depression, reducing maternal fatigue, and increasing mother-infant attachment in the short-term postpartum period. In the meantime, in a number of randomized controlled studies, the efficacy of the treatment group that combined auricular acupressure was significantly better than that of the control group with monotherapy, and the side effects of antidepressant medication were reduced, and while relieving the state of depression, it was effective in improving the indicators related to comorbidities, and the score of the Depression Assessment Scale was significantly different before and after the treatment. Auricular acupressure has also been found to be an effective and safe treatment for alleviating symptoms of depression and anxiety in COVID-19 patients, with significant reductions in SAS and SDS scores in the auricular acupressure group relative to the control group in 68 subjects diagnosed with COVID-19 pneumonia.

Thus, auricular auricular acupressure can significantly and effectively improve the symptoms of patients with depression, the therapeutic effect is remarkable, and at the same time has a small adverse reaction, simple and feasible operation, patient compliance and other characteristics, worthy of clinical application.

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DISTINCT URINARY BIOMARKERS FOR EARLY DIAGNOSIS OF DIABETIC NEPHROPATHY

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Abstract. Diabetic nephropathy is a major complication of diabetes mellitus caused by changes in renal structure and function. The rate of diabetic nephropathy is increasing year by year. From the perspective of prevention and prognosis, early diagnosis of Diabetic nephropathy is an important task. However, there are some shortcomings in the current clinical diagnostic methods, so urinary biomarkers have been widely studied for their non-invasive and stable advantages. The present study reviewed various urinary biomarkers related to Diabetic nephropathy patients and concluded that neutrophil gelatinase-associated lipocalin (NGAL) and E-cadherin can be used as new urinary biomarkers for early diagnosis of Diabetic nephropathy. This provides a new possibility for the innovative diagnosis of Diabetic nephropathy.

Keywords: Diabetic nephropathy, urinary biomarkers, early diagnosis

Diabetic nephropathy is a chronic complication caused by diabetic microangiopathy, which is the leading cause of end-stage renal disease worldwide. The International Diabetes Federation estimates that the number of diabetic patients will increase to 700 million in 2045, and the prevalence of diabetic nephropathy, as a common complication of diabetes, is also increasing year by year. At present, the pathogenesis of diabetic nephropathy is mainly related to oxidative stress, inflammation

and autophagy, involving glomerular and renal tubular lesions. There is no effective treatment in clinical practice. Therefore, it is very important to develop effective differential diagnosis methods to improve the success rate of treatment and the survival rate of patients.

Currently, renal biopsy is considered the gold standard for the diagnosis of diabetic nephropathy. However, renal biopsy is an invasive procedure that is harmful to the human body. In addition, albumin excretion rate (AER) or estimated glomerular filtration rate (eGFR) are two clinically recognized screening indicators for diabetic nephropathy. But research has found that the disease usually occurs when persistent urinary protein is present, and although glomerular filtration rate appears earlier, it changes in most chronic glomerular diseases. The application of urine as non-invasive liquid biopsy has obvious advantages of practicality and availability. Therefore, it is of great significance to find new specific urinary biomarkers of diabetic nephropathy.

Objective

The search for early urine biomarkers that are more relevant to diabetes nephropathy, and these biomarkers are increasingly used for disease progression to provide effective innovative diagnosis and treatment methods in humans.

Materials and methods

The researcher performed a review of the literature with Medline, Google Scholar, and CNKI databases search for English language and human study articles registered from July 2018 to July 2023. The researcher used the following search terms: "diabetic nephropathy," "urinary biomarker," and "early diagnosis" The keywords were searched alone or in combination with other keywords.

Results and discussion

NGAL and E-cadherin are very specific biomarkers associated with diabetic nephropathy. NGAL is one of the most significantly up-regulated proteins in the renal tubules after ischemic injury, which can be detected before the decline of GFR, and has no correlation with glomerular injury. E-cadherin is the only biomarker that can significantly distinguish different stages of diabetic nephropathy, and its level is positively correlated with the progression of microalbuminuria and significantly correlated with eGFR. They can make up for the deficiency of current clinical diagnosis of diabetes nephropathy.

Thus, NGAL and E-cadherin are fully promising as new urinary biomarkers for diagnosing early diabetic nephropathy.

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RESEARCH PROGRESS OF TRADITIONAL CHINESE MEDICINE DECOCTION IN TREATING DIABETIC NEPHROPATHY

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Abstract. This paper introduces the research progress of traditional Chinese medicine decoction in treating Diabetic nephropathy(DN). DN is one of the microvascular complications of diabetes and an important cause of end-stage renal disease. The pathogenic mechanism of DN is complex, and Chinese medicine treatment has the characteristics of multi-component and multi-target, so the use of Chinese medicine decoction in the treatment of DN can effectively delay the development of DN. This article focuses on the treatment of DN with Bushen Huoxue Decoction, angelica Bushen Huoxue Decoction and Bushen Jiangtang Prescription.

Keywords: Diabetic nephropathy, Chinese herbal decoction

DN is clinically characterized by persistent albuminuria and/or a progressive decline in glomerular filtration rate. The pathogenesis of DN is complex, and it is generally believed that inflammation, oxidative stress and autophagy are the main pathogenesis [1]. In a high-glucose environment, monocyte chemoattractant protein-1 (MCP-1) increased secretion in renal tissue, gathering a variety of inflammatory cells, and these gathered inflammatory cells could secrete a large number of inflammatory cytokines, such as IL-1 and IL-18. The vicious circle of inflammatory damage is caused, which leads to the further deterioration of DN. Oxidative stress is manifested as an imbalance between oxidative and antioxidant substances in the body, which leads to cell dysfunction and tissue and organ damage. Oxidative stress plays an important role in the progression of DN and is the main pathogenesis of kidney damage. The persistence of high glucose stimulation induced glomerular mesangial cells to produce a large number of ROS groups, which subsequently increased the oxidative stress response of the kidney by activating multiple signaling pathways and aggravated kidney injury. In DN model mice, the autophagy activity of podocytes, mesangial cells and other renal proper cells was decreased, which led to the weakening of the ability of renal proper cells to clear damaged proteins and organelles in time, resulting in the injury of renal proper cells, which led to the thickening of glomerular basement membrane and the increase of ECM production, and promoted renal fibrosis. [2]

To sum up, the treatment of DN is mainly to reduce inflammatory cells and inhibit the secretion of inflammatory cytokines by inflammatory cells; Inhibit the overproduction of ROS groups and maintain the normal autophagy activity of kidney cells.

Objective

To clarify the effective ingredients, mechanism of action and therapeutic effect of three kinds of TCM decoction in the treatment of DN.

Materials and methods

By inquiring the pathogenesis of diabetic nephropathy through CNKI and PUBMED, the mechanism of action of three kinds of decoction was summarized.

Results and discussion

Through the network pharmacological analysis of Bushen Huoxue decoction, it is concluded that Bushen Huoxue Decoction can improve the clinical efficacy of DN, and has certain advantages in lowering blood sugar, regulating blood lipids and protecting renal function. The intervention of Bushen Huoxue Decoction on DN is a comprehensive result of the joint action of multiple components and multiple targets. It mainly achieves the purpose of treating DN by intervening oxidative stress, inflammatory response, polyol pathway, insulin pathway, glucose and lipid metabolism, apoptosis and other pathways [3]. Through the network pharmacological study on the mechanism of action of Danggui Buxue decoction in the treatment of DN, it was found that the active ingredients of Danggui Buxue decoction, such as quercetin, kaempferol, formononetin and other significant effective compounds, can regulate the key targets of PTGS2, GABRA1, NCOA2 and other 162 related pathways, including AGE-RAGE, IL-17, HIF-1 And 131 related biological processes, such as cytokine receptor binding, cytokine activity, phosphatase binding, serine hydrolase activity, antioxidant activity, and kinase regulation activity, synergically play the therapeutic effect on DN[4]. The study on the effects of Bushen Jiangtang prescription on renal function and tubular epithelial autophagy in DN mice showed that Bushen Jiangtang could effectively improve renal function in DN model rats, reduce renal tissue damage, alleviate tubular lesions and promote tubular epithelial autophagy. The mechanism of action may be related to regulation [5].

The three TCM decoction has good therapeutic effect on diabetic nephropathy from the perspective of chemical composition and target, which reflects

the characteristics of multi-component, multi-target and multi-pathway collaboration of TCM compound.

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RESEARCH PROGRESS ON THE MECHANISM OF ASTRAGALUS POLYSACCHARIDE IN THE TREATMENT OF DIABETIC NEPHROPATHY

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Abstract. Diabetic nephropathy (DN) is one of the common complications of diabetic patients. However, due to its unclear pathogenesis, there is a lack of effective treatment measures. Astragalus membranaceus, as a traditional Chinese medicine commonly used in the treatment of DN, has been confirmed to contain one of the main effective components of Astragalus polysaccharide (APS). This article will review the research progress of the mechanism of action of astragalus polysaccharides in the treatment of diabetic nephropathy, in order to provide some basis and support for the clinical treatment of APS in DN.

Keywords: Astragalus polysaccharide, Diabetic nephropathy, Mechanism of action

DN is one of the most common microvascular complications of diabetes. The occurrence of DN is due to the long-term hyperglycemia in diabetic patients, which can damage renal blood vessels and filtration units, resulting in progressive reduction of proteinuria and glomerular filtration rate. Astragalus is a traditional Chinese medicine often used to treat diabetic nephropathy, and the curative effect is remarkable. APS is one of the main effective components in the treatment of DN.

Objective

This article reviews the modern research progress of the mechanism of APS in the treatment of DN, and provides a reference for the in-depth study and clinical application of the mechanism of APS in the treatment of DN.

Materials and Method

Search the keywords 'Astragalus polysaccharide and diabetic nephropathy ' in CNKI, Wanfang, Web of Science, PubMed and other websites. To sort out and summarize the modern research progress of the mechanism of APS in the treatment of DN.

Results and conclusions

The pathogenesis of DN is complex. A variety of pathogenic factors such as inflammation, cell injury and apoptosis, renal tissue fibrosis, abnormal glucose, lipid metabolism and so on, can lead to the occurrence of DN. APS has a certain improvement effect on the above pathogenic factors.

Guo Mingfei proved that APS can improve the renal inflammatory response of DN by inhibiting the TLR4/NF-κB pathway[1]. Guo Xiaoling showed that APS can promote the proliferation of renal tubular epithelial cells and inhibit apoptosis by down-regulating the JAK/STAT signaling pathway[2]. Studies have found that APS can regulate the expression of downstream signaling molecules by inhibiting the TGF-β1/Smad signaling pathway, and ultimately reduce renal fibrosis[3]. In addition, APS can also promote the uptake of glucose by adipocytes and reduce the disorder of glucose and lipid metabolism.

In summary, APS can alleviate some pathogenic factors of DN by regulating multiple signaling pathways, so as to achieve the effect of treating and alleviating DN. However, at present, the clinical application of APS is not extensive, and there are relatively few studies on adverse reactions.

Therefore, in the future, it is necessary to explore the pharmacological effects and mechanism of APS more deeply and extensively, so as to provide a more solid and reliable scientific theoretical basis for the treatment of DN.

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EARLY DIAGNOSIS AND TREATMENT OF MYCOPLASMA PNEUMONIAE PNEUMONIA IN CHILDREN

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Abstract. This article introduces the application of mycoplasma pneumoniae kang zhi syrup combined with clinical symptoms and signs for the early diagnosis of mycoplasma pneumoniae pneumonia in children. According to 90 children from the pediatric outpatient department of the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine, they were randomly divided into two groups, the treatment group was treated with kang zhi syrup, the control group was treated with azithromycin, two courses of treatment, the control group was treated with azithromycin. Using SPSS26.0 for statistical analysis, it was concluded that kang zhi syrup had significant effect on the treatment of Mycoplasma pneumoniae.

Keywords: Mycoplasma pneumoniae;Anti-bronchitis syrup; Azithromycin

Mycoplasma pneumoniae pneumonia (MPP), also known as primary atypical pneumonia, is an acute inflammatory change of the respiratory tract and lung caused by Mycoplasma pneumoniae, which is mainly transmitted by respiratory droplets and direct contact. Because Mycoplasma pneumoniae has no cell wall, it can attach and colonize the respiratory epithelial cells of the host, and has common antigenic components with host cells. It is not easy to be recognized by the body and can reside in the body for a long time. In addition, the body development of children is not perfect, the airway structure is short and straight, and the defense function is weak, so the infection rate of children is high and the onset period is long. The clinical manifestations of the disease are non-specific, the onset is slow, cough, fever, sore throat and other symptoms can be seen, there is no rales in the lungs in the early stage, the peripheral blood WBC is mostly normal, and the chest imaging can change early. It is easy to be misdiagnosed in the process of clinical diagnosis, which is not conducive to early clinical intervention. Macrolides are often used as first-line treatment drugs, but with their wide application, drug resistance is also increasing, which reduces the clinical efficacy and prolongs the course of the disease. In severe cases, they will develop into severe mycoplasma pneumonia (SMPP), and have multiple system damage such as nervous system, cardiovascular system and urinary system, which seriously endanger the quality of life of children. Therefore, early identification, diagnosis and treatment are particularly important. Mycoplasma pneumoniae kang zhi syruphas certain clinical significance, including Mycoplasma pneumoniae IgM antibody (MP-IgM), Mycoplasma pneumoniae IgG antibody (MP-IgG) and Mycoplasma pneumoniae total antibody (MP-Ab), etc. Kang zhi syrup is a traditional Chinese medicine prescription made by Professor Wang Youpeng based on many years of clinical experience and experimental research. It has been proved by experiments that anti-bronchitis syrup has significant efficacy in eliminating MP infection in vivo, and is safe and reliable, with its unique advantages and characteristics.

Objective

To detect Mycoplasma pneumoniae antibody as early as possible for the early diagnosis of the disease, and to evaluate the clinical effect of Kangzhi syrup on Mycoplasma pneumoniae pneumonia by observing the changes in symptoms and signs in children.

Materials and methods

Peripheral blood samples were collected and centrifuged after natural coagulation (serum samples should be detected within 8 hours) for qualitative and quantitative detection of MP-IgM antibody. Mp-igm antibody titer ≥1:160 was considered positive, indicating recent infection with Mycoplasma pneumoniae. A total of 90 children with positive MP-igm antibody in the pediatric outpatient department of the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine were selected and randomly divided into treatment group and control group, with 45 cases in each group. The treatment group was given traditional Chinese medicine preparation kang zhi syrup, and the control group was given azithromycin routine treatment. One week was a course of treatment, and a total of 2 courses were taken. The clinical symptoms and signs, such as fever, cough, pulmonary auscultation, and lung imaging changes of the two groups were observed before and after treatment. The diagnostic criteria of cured, marked effective, effective, and ineffective were formulated according to the «Standard of Diagnosis of TCM diseases and Syndromes». SPSS26.0 statistical software was used for statistical analysis, $P<0.05$ was considered as significant difference.

Results and discussion

From2020-2021 children with Mycoplasma pneumoniae pneumonia were randomly divided into two groups and treated for 14 days. The cure rate of the treatment group was 88.10%, and the total effective rate was 95.24%. In the control group, the cure rate was 43.09%, and the total effective rate was 82.93%. There was a significant difference in the cure rate between the two groups, but there was no significant difference in the total effective rate. In conclusion, both kang zhi syrup and azithromycin were effective in the treatment of Mycoplasma pneumoniae pneumonia in children, and the effect of anti-bronchitis syrup was better than that of azithromycin.

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RESEARCH PROGRESS IN TRADITIONAL CHINESE MEDICINE EXTERNAL THERAPIES FOR POST-TRAUMATIC ANKLE ARTHRITIS

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Abstract. This review summarizes the methods and effectiveness of traditional Chinese medicine in treating post-traumatic ankle arthritis. Traditional Chinese medicine external treatments, such as acupuncture, Tuina massage, medicated fumigation and washing, and medicated external application, show positive significance in improving patients' quality of life, alleviating symptoms, and preventing disease progression. However, further high-quality clinical research is needed to validate their efficacy and provide more effective comprehensive treatment options.

Keywords: Acupuncture, Tuina, Medicated fumigation and washing, TCM External Treatment Application Medicated external, Post-traumatic Ankle Arthritis

Post-traumatic ankle arthritis is the most common complication of ankle fractures or joint instability, with joint pain and functional impairment being its main clinical manifestations [1]. In traditional Chinese medicine, this condition falls under the category of «bone impediment.» External treatment with traditional Chinese medicine offers advantages of being minimally invasive, cost-effective, and easily accepted by patients, making it a primary approach in clinical management of post-traumatic ankle arthritis.

Acupuncture

Acupuncture has been shown to promote local blood circulation, accelerate the elimination of inflammatory substances, improve the joint

environment, and facilitate cartilage repair . In a study conducted by Deng Kun [2], 52 patients with post-traumatic ankle arthritis were divided into a control group and an observation group. The control group received TCM external wash therapy, while the observation group received additional floating needle treatment based on the control group's treatment. After the treatment, the total effective rates in the observation and control groups were 91.7% and 62.5%, respectively, with a statistically significant difference (P<0.05).

Tuina

Tuina massage techniques can relieve local spasms, loosen adhesions, reduce joint load, correct joint disorders, and thereby alleviate inflammation. Zhang et al. conducted a study on 64 patients with ankle osteoarthritis, randomly dividing them into two groups. The control group received oral administration of Flurbiprofen combined with comprehensive nursing intervention, while the observation group received Tuina massage combined with intra-articular injection and comprehensive nursing intervention. The observation group had a total effective rate of 87.5%, whereas the control group had a total effective rate of 62.5%, with a statistically significant difference (P<0.05) [3].

Medicated fumigation and washing

The Chinese medicine fumigation and washing therapy is a treatment method that combines the effects of herbal medicine and heat at the affected area. Zhang et al. conducted a study involving 60 patients with post-traumatic ankle arthritis, dividing them into a control group and an observation group. The control group received intra-articular injections of sodium hyaluronate, while the observation group underwent fumigation with Bone Washing Decoction No. 1. The observation group showed a significant improvement in Visual Analog Scale (VAS) scores compared to the control group, with a statistically significant difference (P<0.05) [4].

Medicated external application

External application of Chinese herbal medicine can effectively improve local blood circulation, alleviate pain and swelling, and enhance joint function and mobility. Wang et al. conducted a study involving 50 patients with post-traumatic ankle arthritis, dividing them into a control group and an observation group. The control group received intra-articular injections of sodium hyaluronate, while the observation group received ozone intra-articular injections and Chinese herbal medicine external application. The observation group showed a total effective rate of 96%, while the control group had a total effective rate of 88%, with a statistically significant difference (P<0.05) [5].

Results and discussion

Ankle post-traumatic arthritis can cause persistent pain and functional impairment, significantly affecting patients' quality of life. Overall, traditional Chinese medicine (TCM) treatment has shown positive significance in improving patients' quality of life, managing symptoms, and preventing disease progression. However, further high-quality clinical research is still needed to further validate its efficacy and provide more effective comprehensive treatment options for ankle post-traumatic arthritis.

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META-ANALYSIS OF ACUPOINT CATGUT EMBEDDING IN TREATMENT OF EPILEPSY

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Abstract. The results of systematic review and meta-analysis investigating the efficacy of acupoint catgut embedding as a therapeutic intervention for epilepsy are presented in this paper. Relevant clinical randomized controlled trials were comprehensively searched from six electronic databases. Systematic reviews and meta-analyses were conducted based on the Cochrane systematic review method by using RevMan 5.3 software. On the basis of analysis, it is evident that acupoint catgut embedding demonstrates remarkable efficacy and safety in the treatment of epilepsy. As a novel treatment, acupoint catgut embedding shows the potential of effectiveness and deserves further high quality of well-designed study.

Keywords: Acupoint catgut embedding, Epilepsy, Meta-analysis, Randomized controlled trial, Efficacy and safety

Epilepsy (EP), a widespread chronic neurological disorder that affects more than 65 million individuals of various ages worldwide, is characterized by a lasting predisposition to generate spontaneous epileptic seizures and has numerous neurobiological, cognitive, and psychosocial consequences.

Antiseizure medication is the current primary treatment strategy but a significant number of people continue to have seizures and many experience adverse effects to the drugs. Acupoint catgut embedding is a possible alternative strategy for the treatment of EP. Researches have shown that embedding catgut in specific parts of the skin can continuously generate benign stimulation, regulate mitochondrial function and autophagic activity, alleviate pathological damage of the hippocampus, restore normal central function, regulate immunity, and inhibit the release of inflammatory factors. Furthermore, when compared to alternative treatment modalities, acupoint catgut embedding offers distinctive benefits, such as time saving, low medical costs, simple and convenient operation, no liver or kidney toxicity, low incidence of adverse reactions, mild symptoms and so on.

In recent times, the effectiveness of acupoint catgut embedding therapy in the management of EP has garnered extensive validation and discourse within clinical settings. However, the sample size of correlated randomized controlled trials has been limited, inadequately elucidating the issue. This study used systematic evaluation and meta-analysis methods to evaluate the effectiveness and safety of acupoint catgut embedding in the therapeutic management of EP, with the aim of furnishing a more reliable reference to underpin clinical application and associated research.

Objective

To evaluate the clinical efficacy of acupoint catgut embedding in the treatment of EP through meta-analysis.

Materials and methods

Correlative randomized controlled trials were identified through a comprehensive literature search of PubMed, Cochrane, ScienceDirect, China National Knowledge Infrastructure (CNKI), Wanfang, and VIP database from inception until February 2023. Two researchers independently screened the literature, extracted data, and assessed risk of bias as required. Study quality of each included article was evaluated by the Cochrane Collaboration Risk of Bias Tool, and meta-analysis was performed by using RevMan 5.3 software.

Results and discussion

Thirteen trials involving 1387 patients were identified. The findings of the meta-analysis unveiled that in comparison to the cohort receiving conventional Western medicine, both the group treated with acupoint catgut embedding and the group receiving a combined intervention of acupoint catgut embedding with Western medicine exhibited a notable escalation in the overall efficacy rate (OR=3.03, 95% CI [1.94, 0.73], P < 0.000 01), a reduction in the incidence of epileptic episodes (MD=-1.04, 95% CI [-1.15, -0.92], P < 0.000 01), and a profound improvement in clinical manifestations (MD=-1.93, 95% CI [-3.01, 0.84], P < 0.000 5). Moreover, four trials have revealed that acupoint catgut embedding can reduce adverse reactions associated with antiepileptic drugs.

The results indicated that acupoint catgut embedding exhibits potential efficacy and safety as a therapeutic modality for EP. Nevertheless, further validation of the study's results necessitates the implementation of more rigorously designed, standardized, large-sample, and multicenter randomized controlled designs.

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COMPARATIVE ANALYSIS OF DIAGNOSTIC AND THERAPEUTIC METHODS IN TRADITIONAL CHINESE MEDICINE AND TRADITIONAL RUSSIAN MEDICINE FOR MANAGING DISEASES

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Abstract. This article summarizes and compares various aspects of traditional Chinese and Russian medicine, including their theoretical foundations, diagnostic methods, and treatment modalities. Russian traditional medicine features a unique system of meridians and corresponding acupuncture and massage therapies, often complemented by the use of local herbal remedies in clinical practice. On the other hand, Chinese traditional medicine is based on the theory of Yin-Yang and the Five Elements, emphasizing the Four Diagnostic Methods of observation, listening, questioning, and pulse palpation.

Keywords: traditional medicine; diagnostic methods; meridians; therapies

Traditional Chinese and Russian medicine are two medical systems with a long history, which have developed in different cultural backgrounds and regions. These two forms of traditional medicine have established unique methods for diagnosing and treating diseases through long-term practice, making significant contributions to the field of human health.

Objective

This study aims to analyze and compare the diagnostic and treatment methods used in traditional Chinese and Russian medicine.

Materials and Methods

The primary approach to gather information on the origins of Russian traditional medicine is through references to classic works such as «History of Russia.» Additionally, literature searches were conducted to gain insights into the ancient Russian ethnic medical traditions [1]. Later on, Russian medicine was notably influenced by medical traditions from Central Asia and China, which contributed to the gradual improvement and formation of a more comprehensive medical system in Russia [2].

Results and Discussion

1 Comparison of the Foundations of Traditional Chinese and Russian Medicine

1.1 Meridian Theory: Both traditional Chinese and Russian medicine include the theory of meridians, which suggests the existence of specific channels or energy pathways within the human body. In Chinese medicine, the meridian system is referred to as «Jingmai» and «Luomai,» while Russian traditional medicine has its unique meridian system and terms [3].

1.2 Natural Elements: Both traditional Chinese and Russian medicine emphasize viewing the human body as an integral part of nature. During the treatment process, healthcare providers take into consideration the individual's physical and mental condition to develop comprehensive treatment plans. However, in terms of the concept of natural elements, Chinese medicine emphasizes the theory of Five Elements, while Russian traditional medicine tends to focus on the Four Elements of nature (Earth, Water, Fire, and Air) or Five Elements (Earth, Water, Fire, Air, and Ether) [4]. These different perspectives on natural elements influence each country's understanding of bodily balance and pathological states.

2 Comparison of Diagnostic Methods in Traditional Chinese and Russian Medicine:

Diagnostic Techniques: Both traditional Chinese and Russian medicine place emphasis on preliminary assessment through observation (inspection), inquiry (asking questions), and listening/smelling (auscultation and olfaction). In Chinese medicine, pulse diagnosis (pulse-taking) is also a crucial diagnostic method. The form, rhythm, strength, and length of the pulse can reveal

information about Yin-Yang, Qi and blood, and the condition of the organs. However, pulse diagnosis is not commonly practiced in Russian traditional medicine[5].

3 Comparison of Treatment Methods in Traditional Chinese and Russian Medicine:

3.1 Herbal Therapy: Both traditional Chinese and Russian medicine extensively use herbal medicine to treat diseases, and both countries have a long tradition of herbal remedies. Various plant parts, such as roots, stems, leaves, flowers, and fruits, are used to create medicines aimed at balancing and harmonizing the body's energy.

3.2 Acupuncture Therapy: In Russia, acupuncture therapy is referred to as «reflex therapy,» which involves stimulating the body's nerves to regulate the flow of energy and improve overall health. Acupuncture is an essential treatment method in both Chinese and Russian traditional medicine. However, in Russian reflex therapy, the focus is often on treating specific areas of the body, based on the belief that different parts of the body are interconnected. Stimulation of these reflex areas is believed to bring about adjustments to the body's health. However, these reflex therapies in Russia have not formed a separate system like acupuncture in Chinese medicine.

Results and discussion

In history, traditional Chinese and Russian medicine have had deep exchanges and influences. Therefore, traditional Chinese and Russian medicine share many similarities in terms of theoretical foundation, diagnostic methods, and treatment techniques.

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MOLECULAR IMPRINTING POLYMERS ELECTROCHEMICAL SENSOR BASED ON CS-CMWCNTS MODIFIED GCE FOR HIGHLY SENSITIVE DETECTION OF QUERCETIN

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Abstract. A novel molecular imprinted polymer (MIP) electrochemical sensor was successfully fabricated for sensitive detection of quercetin (Qu). The specific of molecularly imprinted polymers (MIP-CS-CMWCNTs/GCE) was fabricated by using quercetin (Qu) as the template molecule, 4-vinyl pyridine (4-VP) as the functional monomer, 2,2''–azobis (2-methylpropionitrile) (AIBN) as the initiator and ethylene glycol dimethacrylate (EGDMA) as the cross-linker. Then the template molecule was removed by eluent, the quercetin molecularly imprinted sensor was constructed. After a series of experiments, the molecularly imprinted composite electrode was characterized and the experimental conditions were optimized. The results demonstrate that the electrochemical sensor for Qu exhibits a wide detection range of 53 μM - 460.5 μM with a limit of detection (LOD) of 0.11 μM. Besides, the Qu sensor possessed good stability, reproducibility, and excellent selectivity against other interferents. Furthermore, this sensor was applied to human serum sample to determine Qu, and it exhibited satisfactory recovery results of 99.04 % - 103.85 %, indicating that the sensor has great potential in practical applications.

Keywords: Molecular Imprinting Polymer, quercetin, Electrochemical sensor, MWCNT, C

The active ingredients of many traditional Chinese herbs or natural products contain flavonoids. Because of the phenolic hydroxyl group in the structure, they have good antioxidant effects. Quercetin (Qu) is a polyphenolic substance containing five phenolic hydroxyl groups, which has the possibility of forming hydrogen bonds with functional monomers. Therefore, it is highly required and extremely significant to explore simple, efficient methods for quercetin determination in biological samples. Molecular imprinted polymer (MIP) possesses binding sites complementary in shapes

and sizes to recognize target molecules. It also represents chemical (physical) stability, low cost, efficient, which is considered as an ideal artificial recognition material to improve the measuring selectivity[1]. Therefore, the accurate, convenient detection of Qu using molecule-imprinted electrochemical sensors is of great significance for its further development and application in medicine.

Objective

This study aims to fabricate a novel electrochemical sensor using MIP-CS-CMWCNT composite to modify glassy carbon electrode (GCE) for the determination of Qu.

Materials and methods

Preparation of carboxylated multiwalled carbon nanotubes: 100 mg MWCNTs were dispersed in 10 mL of mixed acid (V(H2SO4) : V(HNO3) = 3 : 1) solution, mixed evenly by ultrasound for 2 h at room temperature, then refluxed at 80 °C for 5 h, rinsed with distilled water, precipitated to neutral, centrifuged, collected and dried naturally.

Synthesis of CS-CMWCNTs composite and Construction of CS-CMWCNTs/GCE: 100μL glacial acetic acid was added to 10 mL of distilled water to make a 1 % acetic acid solution, followed by 2 mg of chitosan added to 1 mL of 1% acetic acid solution for dissolution. The 0.32 mg carboxylated MWNTS were sonicated and dispersed in 1 mL of distilled water for 30 min, and then mixed and sonicated with the above solution for 2 h to form a uniform dispersion. Then, 10 μL of the suspension were drop-casted onto the surface of the electrode and dried at room temperature.

All the electrochemical tests were carried out in a three-electrode testing system, CHI 760E electrochemical workstation was functional to carry out the electrochemical measurements. The experimental temperature was room temperature, and the solution in the system was 10 mL of 0.1 M phosphate (PBS) buffer with different pH. In this paper, the performance of the molecular imprinted sensor was analyzed by cyclic voltammetry and differential pulse voltammetry.

Results and discussion

The cyclic voltammetry curves of the electrode at different scan rates (10 - 100 mV•s-1) were measured by CV, and its electroactive surface area was further calculated. The linear equation of the square root of current and scan rate is Ipa=3.643V1/2-4.609, R=0.996, according to the Randles-Sevcik equation, the calculated active area is 1.079 cm2, which is nearly 15.0 times as large as the bare electrode (0.0707 cm2). It is proved that the composite electrode has better electrochemical activity.

The ability of MIP-CS-CMWCNTs/GCE to recognize Qu in the presence of different interferents and the electrochemical responses of MIP-CS-CMWCNTs/GCE electrodes with different concentrations of Qu were investigated by DPV in 0.1 M PBS buffer solution (pH=3.0) containing 0.01 M Qu. Adding the same concentration of interfering substances rutin, baicalin, luteolin, sodium sulfate and other inorganic ions had little effect on the detection of Qu, reflecting the selectivity of the electrode. With the increase of Qu concentration, the response current increases linearly within a certain range. The linear range of quercetin was 53 μM - 460.5 μM, the detection limit was 0.11 μM.

Using standard addition method, Qu in human serum was detected by DPV. Take 1 mL of human serum and add it to a 10 mL volumetric bottle, then fill it with 0.1 M PBS buffer solution (pH=3.0), then add the quantitative standard solution for detection. The results showed that the recoveries of the composite electrode in actual serum samples were 99.04 % - 103.85 %, indicating that the sensor has great potential in practical applications.

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BASED ON THE DATA MINING TECHNOLOGY THE COMPATIBLiITY RULES OF THE RESCRIPTION FOR THE TREATMENT OF CHEST WALL HEARTACHE WERE SUMMARIZED

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Abstract. Based on CNKI database, WANFANG DATA database, Chinese full-text Journal Database (VIP) and China Biomedical Full-text Database (CBM), articles published between January 1, 2018 and January 1, 2021 on the use of traditional Chinese medicine in the treatment of chest wall heartache were retrieved and screened to establish a database. The ancient and modern medical record platform and IBM SPSSS Statistics 22 were used to calculate the frequency of clinical medication, common drug pairs and drug combinations, and the compatibility rule of drug rental was analyzed.

Keywords: data mining, chest impediment, medication law

The chest pain of TCM is the coronary heart disease of Western medicine, the clinical manifestations are chest tightness, heartache, and even the clinical phenomena of chest pain, wheezing and not sleeping[1]. At present, the treatment of coronary heart disease in Western medicine is mainly based on oral secondary prevention drugs, and Chinese medicine has a very good effect on the treatment of chest numbness and heartache.

Objective

Through statistical analysis of the drugs for treating chest numbness and heartache, combined with pharmacology and related experiments, the compatibility effect of commonly used drug pairs was found out.

Materials and methods

Traditional Chinese medicine prescriptions and drug names meeting the inclusion criteria were entered into Excel 2010 to establish a prescription database. The ancient and modern medical record platform v2.3.5 was used to add the data into the data analysis pool, and the data mining function module prescription was used for analysis.

Results and discussion

The top 20 most frequently used drugs in statistical analysis were South Sea ginseng, North Sea ginseng, Salvia miltiorrhiza, Ophiopogon, Radix pseudostellariae, jujube kernel, Matrine, Notoginseng, scrophulariae, white Peony, Cistanche, schisandra schisandra, Red Peony, Cypress kernel, Wolfberry, Euzhong, Hongqi, Astragalus, Dendrobium and Chuanxiong[2]. These drugs are mainly classified as liver, lung and stomach. Common drug pairs: Radix pseudostellariae - Radix Paeoniae; Jujube kernel - Panax notoginseng; Sophora - Scrophulariae; Liopogon - Salvia miltiorrhiza; South Sea Ginseng - North Sea ginseng. To analyze the properties of drugs, the most used is cold drug, which is used to supplement deficiency and Yin, and nourish the heart and pulse. The combination of South Sea ginseng and North Sea ginseng can strengthen the effect of invigorating qi and nourishing Yin. Salvia miltiorrhiza and Nansha ginseng can be combined with tonifying qi and Yin, promoting blood circulation and removing blood stasis. The prescription drugs showed the regularity of the formulation of invigorating qi and nourishing Yin, promoting blood circulation and removing blood stasis.

In summary, through the data mining and analysis of clinical research literature on prescription drugs of TCM in the treatment of chest arthralgia and heartache, the law of drug compatibility of the disease was obtained, which provided a certain reference for clinical drug use of chest arthralgia.

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ADVANCES IN THE TREATMENT OF DIABETIC COMPLICATIONS

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Abstract. Diabetes mellitus (DM) is a metabolic disease caused by deficiency of insulin secretion or dysfunction of insulin action, and is characterized by hyperglycemia. Diabetes is a common chronic disease, its harm is not the diabetes itself,but due to complications caused by abnormal blood sugar.In this paper, the prevention and treatment of diabetic complications such as retinopathy, renal complications, gastroparesis and so on were reviewed in order to provide reference for the clinical treatment of diabetic complications.

Keywords: diabetic, retinopathy , renal complications , gastroparesis

Complications of diabetes is a chronic diseases caused by the gradual development of diabetes mellitus, including the eyes, nerves, blood vessels, heart and other tissues. With the continuous progress of modern medicine, a large number of clinical studies have been conducted on the prevention and treatment of a series of complications caused by diabetes, such as retinopathy, kidney complications and gastroparesis, and some research results have been achieved, which are summarized as follows in this paper.

1 Treatment of retinopathy

Diabetic retinopathy (DR) is a diabetic complication mainly characterized by microvascular lesions. Severe microvascular lesions can also lead to blindness [1]. The literature review shows that the main pathogenesis of DR is related to the inflammatory response caused by oxidative stress, apoptosis, and the changes of growth factors and hormones. TCM monomeric (chlorogenic acid), single medicine (Sanqi , Puhuang, pueraria root, wolfberry, etc.)and Chinese patent medicine (ligustrazine injection, Furongtongmai capsule, Qiju Dihuang Pill, etc.) can provide beneficial supplements for the treatment of DR [2].

2 Treatment of renal complications

Diabetic kidney disease (DKD) is chronic kidney disease (CKD) caused by microvascular changes in the kidney under the condition of diabetes mellitus (DM), and is the most common microvascular complication of DM. With the progression of the disease, it can eventually progress to end-stage renal disease (ESRD). Single medicine (Astragalus, tripterygium, Pueraria, salvia miltiorrhiza, etc.) and Chinese patent medicine (Liu Wei Dihuang Pill, Zhenwu Decoction, Shenqi Pill, etc.) can provide beneficial supplements for the treatment of DKD, and strengthen multi-factor intervention, including RAAS blocking, blood pressure and blood sugar control, and smoking cessation, which can help prevent the development of DKD [3].

3 Treatment of gastroparesis

Diabetic neuropathy is one of the most common chronic complications of diabetes [4-5]. In TCM treatment, the symptoms of diabetic gastroparesis can be alleviated or eliminated and the prognosis can be improved by means of TCM dialectical classification, acupuncture treatment, acupoint injection, drug enema, traditional Chinese medicine hot compress, massage and so on. Traditional Chinese medicine has a variety of treatment methods and has certain advantages in the treatment of this disease. However, the current research evidence level is relatively low, there is a lack of high-quality, large sample and multi-center clinical research data, and the research on the mechanism of action is not deep enough. Therefore, we should continue to think, verify and innovate in future clinical practice. Provide optimized diagnosis and treatment plan and solid and credible research evidence for the treatment of diabetic gastroparesis by traditional Chinese medicine [6].

Results and discussion

Through the study on the prevention and treatment of diabetes complications, it can be found that although diabetes complications can not be completely cured, but according to the specific type of diabetes complications can be effectively treated with appropriate drugs to alleviate the symptoms of Complications of diabetes,Thus reducing the pain of patients and improve the quality of life.

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RESEARCH PROGRESS AND APPLICATION PROSPECT OF INHIBITION OF TYROSINASE ACTIVITY IN TRADITIONAL CHINESE MEDICINE

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Abstract. Tyrosinase is a versatile, glycosylated, and copper-containing oxidase that catalyzes the first two steps of mammalian melanin production and too much melanin promotes skin pigmentation and fruit enzyme browning, neither of which is desirable. Although many drugs are currently used to treat pigmentation, they all have more or fewer side effects, including kojic acid, which increases the risk of pigmentation contact dermatitis. These phenomena have encouraged researchers to search for new effective tyrosinase inhibitors for use in food and cosmetics.

Keywords: Tyrosinase;Inhibitors;Melanogenesis;Chinese Medicine; Research progress

As a traditional medicine, traditional Chinese medicine has many bioactive parts, some studies have shown that some components in traditional Chinese medicine have tyrosinase inhibitory activity. Melanin deposition is the main cause of skin darkening, which can cause severe physical and psychological pain, so it is necessary to study ways to keep the skin healthy and fair. Tyrosinase (TYR) is a rate-limiting enzyme for melanin synthesis, and its activity directly determines the degree of accumulation of melanin in the skin, which in turn affects the color of the skin. Currently, TYR inhibitors from natural products are widely used for skin whitening. This article reviews tyrosinase inhibitors recently discovered from natural pharmaceutical sources.

«Qi Baishan (also known as chi-baisan), which consists of white lotus, baiji, baizhi, baiju, white peony, poria, and pearl powder, has been used in China since ancient times. Chi-baisan can reduce melanin and help reduce wrinkles. These formula extracts and a mixture of these 7 items were used in zebrafish embryos and B16F10 melanoma cells to determine the function of inhibiting melanin production. In experiments, chi-baisan could downregulate melanin production in B16F10 mouse melanoma cells and zebrafish models induced by α msh. The results showed that Chi-Bai-San had potent anti-melanin production by inhibiting CREB, ZEB2, β-catenin, and MITF/tyrosinase signaling pathways.»

At present, the most widely used tyrosinase inhibitors are hydroquinone, kojic acid, and arbutin, but hydroquinone is known to cause exogenous and cytotoxic anemia; Kojic acid is known to cause allergies and mutagenesis, while arbutin is known to be less cytotoxic than hydroquinone, but has average decolorizing activity. There is a compound that is synthesized by removing the hydroxyl group of arbutin, called deoxyarbutin (4[tetrahydro-2H-pyrans2-yl)oxy]phenol). Hydroquinone has been the gold standard in the treatment of pigmentation for the past decade. In vitro and in vivo experiments showed that the inhibition constant and ic50 of deoxyarbutin (dA) were lower than those of hydroquinone. In terms of safety, dA is safer than hydroquinone, which has low cytotoxicity.

The inhibitory effect of resveratrol and oxidized resveratrol on cell tyrosinase activity and melanin content was compared by B16F0 cells, and molecular docking was obtained from cell-free tyrosinase inhibition, intrinsic fluorescence spectroscopy, circular dichroism, and molecular docking. The results showed that the oxidized resveratrol inhibited tyrosinase activity and melanin formation better than resveratrol. Differences in their inhibition mechanisms may be closely related to differences in the type of inhibition, the intensity of interaction with tyrosinase, and the number of hydrogen bonds between them. Resveratrol has a significant inhibitory effect on the proliferation of human cortical melanocytes and melanin synthesis after ultraviolet irradiation, and its mechanism may be similar to that of resveratrol Alcohol blocks activation of the PKC/CREB/MITF signaling pathway.

Results and discussion

So far, 186 of the 51 61 Chinese medicinal materials reported have tyrosinase inhibitory activity, mainly belonging to 50 kinds of flavonoids, lignans, terpenes, Diels-Alder adducts, simple phenylpropanoids, and stilbene. The Qi Baishan decoction and stilbene in traditional Chinese medicine formulas have also been confirmed to have tyrosinase inhibition, and the removal of hydroxyl-synthesized deoxyarbutin from arbutin as raw material has also been shown to have a better tyrosinase inhibition effect. and In terms of mechanisms most herbs regulate tyrosinase through the PKC/CREB signaling pathway to reduce the production of melanin. Traditional Chinese medicine is a huge treasure, and many precious things in it are worth inheriting and innovating.

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RESEARCH PROGRESS OF VINGAR-BAKED RADIX BUPLEURI IN THE TREATMENT OF HEPATOBILIARY DISEASES

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Abstract. Radix Bupleuri is a commonly used clinical medicinal herb, which has the effect of relieving fever, relieving liver depression, and raising Yang Qi. Vingar-baked Radix Bupleuri(VBRB) as one of the concocted products of Radix Bupleuri, its pharmacological effects and medicinal active ingredients will inevitably undergo a series of changes compared with raw products.

Keywords: Vingar-baked Radix Bupleuri; Inflammation; Antidepressant; Polysaccharide

Radix Bupleuri is the dried root of the Apiaceae plant Bupleurum chinense DC or B. Scorzonerifolium Willd.The main role of Radix Bupleuri itself is to relieve the liver thinning [1].As one of the products of firewood cannon, vingar-baked Radix Bupleuri is used to add quantitative rice vinegar to mix well, moist, and after the vinegar is absorbed, it is heated in a stir-fry container with a simmer, fried dry, and taken out to cool the product. Vinegar products have a good effect on flank swelling pain and abdominal pain in liver depression.

1. Synergistic therapeutic effect of Vingar-baked Radix Bupleuri in hepatitis B virus

The combination of Vingar-baked Radix Bupleuri polysaccharide and lamivudine can significantly increase the inhibition of lamivudine on HBeAg secretion, which has a synergistic enhancement effect. Vingar-baked Radix Bupleuri polysaccharides can enhance lamivudine in the treatment of chronic hepatitis B virus by reducing P-gp, increasing OCT1 protein expression, and increasing lamivudine enrichment in HepG2.2.15 cells [2].

2. The role of Vingar-baked Radix Bupleuri in the treatment of damaging liver fibrosis

The Vingar-baked Radix Bupleuri experimental group was able to significantly reduce the levels of type IV. collagenase, type III procollagenase, laminin (LN), hyaluronic acid (HA) enzyme and fibronectin (FN) in rats with immunocompromised

liver fibrosis caused by porcine serum, and reduce the degree of liver tissue fibrosis. The results showed that Vingar-baked Radix Bupleuri inhibited the synthesis and deposition of extracellular matrix in rats with immunocompromised liver fibrosis, thereby reducing the degree of liver fibrosis and restoring liver function [3].

3. The therapeutic effect of Vingar-baked Radix Bupleuri in depression.

Vingar-baked Radix Bupleuri can shorten the disappointing time of mouse tail hanging and the time of forced swimming in rats.The effect of Vingar-baked Radix Bupleuri is better than that of raw Radix Bupleuri. Vingar-baked Radix Bupleuri can inhibit the activity of cholinesterase and thereby reduce the hydrolysis of acetylcholine, thereby achieving depressant effect[4].

4. The therapeutic effect of Vingar-baked Radix Bupleuri in bruises.

From the perspective of traditional Chinese medicine, Vingar-baked Radix Bupleuri can not only dispersing liver and regulating qi, but also play a role in softening the liver and relieving pain, so it can play a certain effect on injuries and diseases caused by qi blockade and other causes[5].

5. Application of Vingar-baked Radix Bupleuri in the treatment of cholecystitis.

The main causes of hypochondrium pain caused by hepatobiliary disease are liver qi stagnation, stasis stopping, and liver yin deficiency. Therefore, the herb of Vingar-baked Radix Bupleuri is used in the choleretic soup, so as to exert the effect of qi and stasis together with wood incense and agarwood to treat cholecystitis[6].

6. Application of Vingar-baked Radix Bupleuri in the treatment of hepatogastric discord gastritis

The representative formula of Vingar-baked Radix Bupleuri for the treatment of hepatogastric discord gastritis is Radix Bupleuri loose liver drink or dissipation plus and subtract. Doctors believed that Radix Bupleuri must be made with vinegar to prevent it from rising too much, and Vingar-baked Radix Bupleuri to enhance the effect of liver thinning and depression.

Results and discussion

Vingar-baked Radix Bupleuri shows better therapeutic effects than raw Radix Bupleuri in liver thinning, liver depressant, soft liver pain relief and anti-inflammatory, but nevertheless, the clinical application and research value of Vingar-baked Radix Bupleuri still needs to be further explored.

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EXPLORING THE IMMUNE EFFECTIVE COMPONENTS AND MECHANISM OF HIPPOPHAE RHAMNOIDES L. BASED ON NETWORK PHARMACOLOGY

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Abstract. Hippophae rhamnoides Linn., a medicinal and edible plant, has traditional medicinal records and broad pharmacological activities, showing good medicinal value potential, but its potential medicinal substances and mechanism of action are not clear. In this study, network pharmacology was used to predict the active components, core targets, key pathways and potential therapeutic diseases of seabuckthorn. The results showed that seabuckthorn could interfere with immune regulation. The main active components were quercetin and isorhamnetin, and the core targets were TNF, IL-1β and AKT-1. Many effective components in Hippophae rhamnoides can be immunomodulated by multi-target and multi-signal pathway, which provides reference for follow-up research.

Keywords: Hippophae rhamnoides L.; network pharmacology; immunity; molecular docking

Hippophae rhamnoides Linn. is a deciduous shrub belonging to Hippophae of Elaeagnaceae, which has a large presence in North China, the Southwest, the Northwest, and the Northeast of China [1]. Seabuckthorn is traditionally used to treat colitis, gastrointestinal and skin diseases and rheumatoid arthritis [2]. Modern pharmacological research shows that seabuckthorn have many pharmacological effects, such as antibacterial, antioxidant, liver protection, anti-aging, enhancing immunity, anti-cardiovascular disease and anti-tumor. In this study, the main active compounds, target genes and pathways of seabuckthorn interfering with immune regulation were obtained by network pharmacology, which laid the foundation for further study on the pharmacological mechanism of seabuckthorn improving immunity and provided scientific basis for the development and utilization of seabuckthorn resources.

Materials and methods

1. Collection and analysis of drugs and disease targets

Enter «shaji» into the database of pharmacological analysis of traditional Chinese medicine system for retrieval, and collect effective components and related targets. Uniprot database was used to standardize the target information obtained from the query, and the target genes corresponding to the active components of Hippophae rhamnoides were obtained after removing the duplicate genes. With «immunity» as the key word, the immune-related targets were searched through Genecards database and OMIM database. Upload the obtained drugs and disease targets to Venny2.1.0, an online mapping tool, for intersection analysis, as a potential target of seabuckthorn immunity.

2. Construction of protein-protein Interaction Network Diagram

The potential target of seabuckthorn immunomodulation was imported into STRING database to get PPI network diagram, and the PPI was modified by cytoscape3.9.1 to get the top target protein. In addition, the network diagram of drugs and targets was constructed by cytoscape software, and the top active ingredients were obtained.

3. GO enrichment analysis and KEGG pathway analysis

The GO function and KEGG pathway enrichment analysis of the intersection target were carried out by using DAVID database, and the results were visualized by using the micro-information platform.

Results and discussion

After the relevant data processing, 192 effective components of seabuckthorn and 1333 immunity targets were obtained, and 68 intersecting targets were selected to draw the Wayne diagram.The results showed that TNF, IL-1β, AKT-1, VEGFA and TP53 were the top five targets, and quercetin, kaempferol, β-carotene, isorhamnetin and β-sitosterol were the higher active components.In the analysis of GO function enrichment, In terms of BP, it mainly involves positive regulation of transcription from RNA polymerase II promoter, inflammatory response, positive regulation of gene expression and et al. In terms of CC, it mainly involves cytoplasm, nucleus, cytosol and et al. In terms of MF, it mainly involves protein binding, identical protein binding, protein homodimerization activity and et al. The results showed that the immunoregulation of *Hippophae rhamnoides* L. mainly involved lipid and atherosclerosis, fluid shear stress and atherosclerosis, cancer pathway, toxoplasmosis and AGE-RAGE signaling pathway in diabetic complications and et al.

This study provides a research idea of network pharmacology for the development of drugs related to immunomodulation, expounds the material basis and action pathway of seabuckthorn's intervention in immunomodulation mechanism from a holistic perspective, and also provides strong evidence for verifying the scientific nature of TCM theory.

However, the results of this study are only the results of the combination of various databases and the analysis and prediction by software, so further related experiments are needed to verify and improve, so as to promote the application and improvement of seabuckthorn in the research and development of new drugs.

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TREATMENT OF 76 CASES OF VITILIGO WITH YANG DEFICIENCY AND BLOOD STASIS BY FIRE NEEDLE COMBINED WITH TACROLIMUS OINTMENT

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Abstract. Objective:To observe the clinical efficacy of filiform fire needle combined with tacrolimus ointment in the treatment of vitiligo of yang deficiency and blood stasis.Methods:152 patients with vitiligo in our hospital from September 2021 to September 2022 were randomly divided into control group (n=76) and observation group (n=76). The control group was given 0.1% tacrolimus ointment,while the observation group was treated with fire needle on the basis of treatment in the control group.After the same course of treatment,the total curative effect of the two groups and the scores of anxiety and depression before and after treatment were evaluated.Results:After treatment,the total clinical effective rate of the observation group was 80.12%,which was significantly better than that of the control group (50.78%,P<0.05).Besides,the scores of HAMA in both groups were lower than those before treatment,and those in the observation group were lower than the control group's(P<0.05).Conclusion:Filiform fire needle combined with 0.1% tacrolimus ointment is effective in the treatment of vitiligo of yang deficiency and blood stasis,which can reduce the adverse reactions and negative psychological effects on its condition,and is worthy of clinical promotion.

Keywords: Vitiligo, Yang deficiency, Blood stasis, Fiery needle

Vitiligo is a localized depigmented skin disease that occurs on the skin or mucosa,whose etiology and pathogenesis is not clear,easy to diagnose and difficult to treat.Because its skin lesions are exposed,it is easy to cause mental and psychological pressure on patients [1].Filiform fire needle is widely used in the treatment of vitiligo and has definite curative effect [2].

Objective

To observe the clinical efficacy of filiform fire needle combined with tacrolimus ointment in the treatment of vitiligo of yang deficiency and blood stasis.

Materials and methods

152 outpatients with vitiligo in our hospital from September 2021 to September 2022 were randomly divided into control group (n=76) and treatment group (n=76).There was no significant difference between the two groups (P>0.05).

Control group:0.1% tacrolimus ointment [Putby,Anstailai Pharmaceutical(China) Co,Ltd,batch number:051370] evenly and appropriately applied to the skin lesions, once a day, 4 weeks as a course of treatment, 2 consecutive courses of treatment.

Observation group:The patients in the control group were treated with fiery needle on the basis of treatment.The patients were treated with filiform fire needle (0.30 mm × 25 mm, Suzhou Hualun Medical supplies Co, Ltd).The acupoint Ashi (local skin lesion) was selected.Operation methods: (1) Preoperative preparation, patients take a comfortable position to fully expose skin lesions; (2) Routine disinfection, 75% medical ethanol disinfects the affected area and surrounding skin; (3) Acupuncture operation,the operator holds an alcohol lamp in his left hand and a fiery needle in his right hand.Then the filiform needle,buring to the fiery white from the needle body to the needle tip in the outer flame of the alcohol lamp,quickly pierces into the lesion site,straight in and out from the outer edge of the lesion to the center.Besides,the acupuncture depth does not exceed the base of the lesion with slight bleeding as the degree;and the acupuncture spacing is as uniform as possible about 5mm and the area is more than 80% of the lesion area.Once a week, 4 weeks as a course of

treatment,continuous treatment for 2 courses.Refer to Hamilton Anxiety Scale (HAMA) to evaluate the effectiveness of treatments.

Results and discussion

After treatment,the total clinical effective rate of the observation group was 80.12%,which was significantly better than that of the control group (50.78%, P<0.05).Before treatment,the HAMA of the control group and the observation group were 18.92±1.13 and 18.69±1.78 respectively (P>0.05).After treatment,the HAMA of the control group and the observation group were 10.84±0.56 and 7.11±0.98 respectively.The scores of the two groups were lower than before,and the scores of the observation group were lower than control group's (P < 0.05).

Therefore, filiform fire needle combined with 0.1% tacrolimus ointment is effective in the treatment of vitiligo of yang deficiency and blood stasis,which can reduce the adverse reactions and negative psychological effects on its condition,and is worthy of clinical promotion.

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STUDY ON THE MEDICATION RULE OF TRADITIONAL CHINESE MEDICINE IN THE TREATMENT OF METRORRHAGIA (KIDNEY DEFICIENCY) BASED ON DATA MINING

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Abstract. Objective:To explore the characteristics and rules of modern physicians in the treatment of metrorrhagia by statistical methods, so as to provide reference for clinical diagnosis and treatment of metrorrhagia.Methods:The cases meeting the criteria were selected by searching the database, the database was established, and the drug association rules were analyzed by SPSSModeler18.0. Results:132 cases were included in the study,involving 150 kinds of traditional Chinese medicine. 27 medicines were frequently used (frequency≥20 times).The top 3 drugs were Radix Rehmanniae, semen Cuscutae and Radix Paeoniae Alba. According to the statistics of traditional Chinese medicine and taste, the medicine is mainly warm, the taste is sweet and bitter, and the liver channel is the most frequent; drug association rule analysis shows that there are four groups of two related drug combinations with confidence ≥ 95%. Conclusion: the main treatment of kidney deficiency type of metrorrhagia with traditional Chinese medicine is to tonify the kidney, stop bleeding and regulate menstruation, according to the different symptoms, supplemented by soothing the liver, invigorating the spleen, removing blood stasis and other drugs.

Keywords: Collapse and leakage, Data mining, Medication rule

Metrorrhagia is a menstrual disease with serious disorder of menstrual cycle,menstrual period and menstrual volume,and its incidence is increasing year by year.Abnormal uterine bleeding with ovulation disorders in western medicine can be referred to this disease.

Objective

In this study,by collecting the literature and medical records of various doctors in the treatment of metrorrhagia, combined with statistical software, the medication rules of the prescription for the treatment of metrorrhagia were analyzed and summarized in order to provide reference for the clinical treatment of the disease.

Materials and methods

The literature of this study comes from CNKI, VIP and WanFang, and searches with the subject words of «collapse and leakage», «kidney deficiency» and «traditional Chinese medicine». The time limit is from January 2010 to December 2022. The prescriptions that meet the Nanpai standard are recorded in the Excel form, and the names of traditional Chinese medicine are standardized with reference to the 2020 edition of Chinese Pharmacopoeia and traditional Chinese Medicine. The PivotTable function of Excel was used to analyze the drugs, sex, taste and menstruation, and SPSSModeler 18.0 was used to analyze the association rules of drugs. A variety of data mining methods were used to comprehensively analyze the rules and characteristics of traditional Chinese medicine in the treatment of metrorrhagia.

Results and discussion

According to the standard of nanometer discharge, 132 articles were included and 132

effective prescriptions were included. The frequency of included prescriptions was analyzed by using the PivotTable function of Excel. A total of 150 traditional Chinese medicines were involved and the total frequency of use was 1892. Among them, there were 27 high-frequency drugs (≥ 20 times), and the top 3 were Radix Rehmanniae, dodder and Radix Paeoniae Alba. The nature and taste of 150 traditional Chinese medicines were summarized and analyzed, among which sweet taste was the most common; warm medicine was the most common; menstruation mainly belonged to kidney, liver and spleen meridians. The SPSSModeler18.0,Apriori algorithm was used to model and mine the association between traditional Chinese medicine, and the drug association analysis was obtained, in which the drugs with confidence ≥ 95% were cooked land and Poria cocos, cooked land and yam, dodder and wolfberry, white peony and Bupleurum.

According to the drug analysis, Radix Rehmanniae, dodder, Radix Paeoniae Alba, Chinese wolfberry and deer horn gum are the most commonly used drugs for the treatment of kidney deficiency metrorrhagia. The treatment of kidney deficiency type of collapse and leakage is mainly sweet medicine, and the meridians are mostly liver and kidney meridians. High-frequency drugs are Poria cocos-cooked land, Chinese wolfberry-dodder, Bupleurum-Radix Paeoniae Alba and so on. Through the analysis of a single drug pair, it can be found that its effects are mainly tonifying blood and stopping bleeding, tonifying kidney and regulating menstruation. Therefore, most of the clinical manifestations of metrorrhagia are not a single cause, but are mainly caused by kidney deficiency accompanied by blood stasis and liver depression.

The kidney is the congenital foundation, is the biochemical source of qi and blood, kidney qi deficiency, Chong Ren regardless, so menstrual blood does not go down from time to time, in the treatment should be mainly to tonify the kidney and stop bleeding and regulate menstruation. This treatment principle is consistent with the results of this study, so it can be considered that the drug pairs and compatibility rules obtained in the study can provide a certain reference for the clinical treatment of kidney deficiency metrorrhagia.

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CLINICAL STUDY ON THE TREATMENT OF REFRACTORY INSOMNIA BY BRACHIAL PLEXUS BLOCK

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Abstract. Objective: To explore the clinical efficacy of brachial plexus block on refractory insomnia. Methods: 60 cases of refractory insomnia patients were selected randomly divided into the Conventional Acupuncture Group and the Brachial Plexus Block Group, with 30 cases in each group. After the same courses of treatments, evaluating the Clinical Efficacy, the Pittsburgh Sleep Quality Index (PSQI), and the Insomnia Severity Index (ISI) of the two groups. Results: Comparing the clinical efficacy after treatment, the total clinical efficiency of the Brachial Plexus Block Group was higher than that of the Conventional Acupuncture Group (92.18% vs 75.63%, P<0.05). After treatment, the scores of PSQI and ISI in both groups were lower than before, and the Brachial Plexus Block Group was lower than the other group (p<0.05). Conclusion: Both treatments are effective in improving insomnia symptoms in refractory insomnia patients. Brachial plexus block has better efficacy.

Keywords: Refractory insomnia, Brachial plexus block, Treatment, Clinical study

Refractory insomnia is a severe sleep disorder, and prolonged sleep deprivation will not only cause cognitive function and memory loss, but also trigger and aggravate organic or functional cardiovascular diseases, what's more, it will even cause sudden death. At present, the World Health Organization has listed insomnia, cancer and AIDS as the three major diseases of the 21st century and the focus of health education and prevention.

Clinically, Chinese medicine and acupuncture are commonly used to treat refractory insomnia [1], although it has a certain degree of safety, the effect

is slow, requiring patients to adhere to long-term treatments, but they often do not have too much patience and time to stand insomnia, so there is a certain degree of inconvenience. Our creative method to the treatment of refractory insomnia is through brachial plexus block with diazepam to improve clinical efficacy.

Objective

To explore the clinical efficacy of brachial plexus block on refractory insomnia.

Materials and methods

60 patients with refractory insomnia who were hospitalized in the Five Department of Acupuncture in the Second Hospital of Heilongjiang University of TCM from May 2022 to May 2023 were selected and divided into the Conventional Acupuncture Group and the Brachial Plexus Block Group by random number table method, and there were 30 patients in each group, the two groups were comparable with no statistical difference (P > 0.05).

Conventional Acupuncture Group: the selected acupoints are Guanyuan, Zhongwan, Baihui, Mingmen, Dazhui, Shenmai, Zhaohai. Applying 0.30 mm x 40 mm acupuncture needles to pierce properly. Once per day, 6 times a week, 2 weeks for a course of treatment.

Brachial Plexus Block Group: The injection acupoint was Qihu, and diazepam was used as the injection drug (Tianjin Jin Yao Pharmaceutical Co., Ltd., State Pharmaceutical Licence H12020957) . After routine disinfection, diazepam injection was drawn with a 2 ml syringe, insert the needle along the lower edge of the clavicle and penetrate from Qihu towards Jugu. And then slowly pushed in the drug after withdrawing no blood, and the patient should have a sense of overdynamism and/or numbness and distension during the injection process. Remember to press the needle hole to stop the bleeding after the injection is completed if there appears blood and apply an infusion patch to the hole. Use diazepam 2 ml per time, 2 times a week and a total of 2 weeks for a course of treatment.

Refer to the Pittsburgh Sleep Quality Index (PSQI), and the Insomnia Severity Index (ISI) to evaluate the effectiveness of treatments.

Results and discussion

Comparing the clinical efficacy after treatment, the total clinical efficiency of the Brachial Plexus Block Group was higher than that of the Conventional Acupuncture Group (92.18% vs 75.63%, P<0.05), which was statistically significant.

Before treatments, the PSQI and ISI in the Conventional Acupuncture Group were 18.58±2.46 and 23.16±3.59 respectively, while 18.14±2.28 and 23.82±3.71 in the Brachial Plexus Block Group respectively, which were not statistically different. After treatments, the PSQI and ISI in the Conventional Acupuncture Group were 15.27±2.67 and 17.45±3.12 respectively, while 12.14±2.28 and 14.82±3.07 in the Brachial Plexus Block Group respectively. The scores of PSQI and ISI in both groups were lower than before, and the Brachial Plexus Block Group's was lower than the Conventional Acupuncture Group's (p<0.05).

Therefore, both the two treatments are effective clinically, and the method of brachial plexus block is better and worthy of clinical application. The innovation lies in the application of the pharmacological action of diazepam [2], combined with the background of modern anaesthesia medicine, reflecting the advantages of the combination of traditional Chinese and Western medicine treatment, through the diazepam injection, which has the effect of anti-anxiety, sedation and hypnosis, is entered from Qihu, and acts on the brachial plexus nerves, which then blocks the sympathetic nerves, so as to exert the therapeutic effect on the refractory insomnia.

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CLINICAL STUDY OF TRANSCRANIAL REPETITIVE ACUPUNCTURE COMBINED WITH MIRROR THERAPY IN THE TREATMENT OF LOWER LIMB MOTOR DYSFUNCTION AFTER STROKE

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Abstract. Objective: To investigate the clinical efficacy of transcranial repetitive acupuncture combined with mirror therapy in the treatment of lower limb motor dysfunction after stroke. Methods: 62 patients with post-stroke lower limb motor dysfunction were randomly divided into control group and treatment group.The control group was given mirror therapy while the treatment group was treated with transcranial repetitive acupuncture. After the same course of treatment, evaluating the clinical efficacy , the lower limb motor function and the quality of life of the two group. Results: The total clinical efficiency of the treatment group was higher than that of the control group(86.67% vs 65.52%, P<0.05). Conclusion: Transcranial repetitive acupuncture combined with mirror therapy can significantly ameliorate the lower limb motor dysfuction after stroke and improve patients' daily life ability.

Keywords: Transcranial repetitive acupuncture, Mirror therapy

PSD is a mental disorder secondary to stroke, the clinical symptoms are more complex and varied, modern medicine preferred to drug treatment as the main treatment, supplemented by physical and psychological treatment, but studies have shown that drug treatment generally has side effects, patient compliance is low, and the efficacy of the treatment is not stable [2], and acupuncture to adjust the spirit in the regulation of mood and can enhance the effect of symptomatic treatment, so as to achieve the symptomatic relief - anxiety relief virtuous cycle. --The benign cycle of anxiety relief. The ventral brain is known as the second brain of the human body, and ventral brain therapy can better improve the regulation of emotions by the brain and the spirit, and regulate the whole body to treat PSD.

In this study, 62 patients who met the diagnostic criteria of post-stroke depression were included according to the criteria, and were divided into the control group and treatment group according to the random number table for comparison, to observe and explore the clinical efficacy of the acupuncture method of adjusting the ventral brain in treating post-stroke depression, with a view to providing safe, effective and more targeted clinical diagnosis and treatment solutions for the clinic.

Objective

To explore the practicality, effectiveness and safety of regulating abdominal and cerebral acupuncture in the treatment of post-stroke depression, with a view to providing reference for clinical promotion and application.

Materials and methods

The control group (conventional acupuncture group) used Baihui, Yintang, Taichong, Shenmen, Neiguan and Tanzhong. In the treatment group, Baihui, Zhongkou, Tianshu and Qihai were used. After sterilisation of the acupuncture points, 0.25mm×40mm Hua Tuo brand disposable acupuncture needles were used for needling, all of which were flat tonic and flat diarrhoeal, with the main purpose of obtaining qi, and the needles were left in place for 30min after obtaining qi.

Results and discussion

After treatment, the total effective rate of symptom efficacy of the treatment group was 88.9%, and the control group was 74.3%, and the difference was statistically significant, and the method of tuning the ventral brain acupuncture can effectively improve the adverse emotional state of patients with mild-to-moderate post-stroke depression, and provide patients with mild-to-moderate post-stroke depression with effective and non-invasive means of Chinese medicine, and the therapeutic efficacy of the treatment group was better than that of the control group.

In recent years, some foreign scholars have proposed that the neuronal loop of the intestine itself is an independent brain, so it is called intestinal brain or abdominal brain, i.e., enteric nervous system [3]. The discovery of the enteric nervous system and other related neuropeptides for the abdomen to provide an objective basis for acupuncture points, acupuncture points in the abdomen can not only regulate the abdominal enteric nervous system, and through the neurotransmitter link can also regulate the function of the cranial brain, and then treat the psychosomatic disease, adjusting the abdominal brain acupuncture method to help the spleen, stomach and intestinal bowels to receive Sheng transporting water and grain for the essence of the material, in order to nourish the brain and marrow, and tonifying the brain and God; secondly, to adjust and tonify the spleen and stomach in order to tranquillise spleen and mind, spleen «If the spleen's function is normal, then God has something to rely on, and the brain's memory, thinking and other functions remain normal, thus better improving the brain and God's regulation of emotions, and regulating the whole to treat PSD.

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CLINICAL EFFICACY OF TONIC VENTRAL CEREBRAL ACUPUNCTURE IN THE TREATMENT OF MILD-TO-MODERATE POST-STROKE DEPRESSION

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Abstract. Post-stroke depression (PSD) is one of the common complications after stroke, and acupuncture therapy is highly sought after in the treatment of PSD because of its high safety and good clinical efficacy [1]. Taking this as an entry point, this paper proposes the acupuncture method of regulating the abdominal brain, which can better improve the regulation of emotions by the brain and god, and the overall regulation in order to treat PSD, aiming to provide some theoretical references for its clinical treatment.

Keywords: Post-stroke depression; Acupuncture; Abdominal acupuncture; Brain-god regulation

Stroke is an acute cerebrovascular disease with high morbidity, mortality and disability. Studies show that about 30%~50% of stroke patients have motor dysfunction such as the extension spasm of lower limbs, which is the main factor affecting the quality life of patients1.

Transcranial repetitive acupuncture is a new cephalic acupuncture which emphasizes both manipulation and acupoint selection. Combined with mirror therapy, it can not only promote the activation of brain motor functional area, exert the function of brain mastering mind, but also improve patients' subjective initiative, thus accelerating the rehabilitation of the lower limb motor function.

Objective

To investigate the clinical efficacy of transcranial repetitive acupuncture combined with mirror therapy in the treatment of lower limb motor dysfunction after stroke.

Materials and methods

Sixty-two patients with post-stroke lower limb motor dysfunction who were hospitalised in the Five Department of Acupuncture in the Second Hospital of Heilongjiang University of TCM from May 2022 to May 2023 were selected and divided into the treatment group and the control group by random number table , with 31 cases in each group. There was no statistically significant difference in the comparison of gender, age, and duration of disease between the two groups (P > 0.05).

Control group: The patients were treated with mirror therapy. The patient took a sitting position, and a mirror was placed vertically between the lower limbs, with the face of the mirror facing the healthy side and the back of the mirror facing the affected side. Instructed the patient exercise the healthy side, meanwhile, carefully observed the mirror image of the healthy limb and imagined it to be the movement of the affected limb by using the optical illusion.

Treatment group: On the basis of the control group, the patients were treated with transcranial repetitive acupuncture. Disposable sterile acupuncture needles of Huatuo brand with a specification of 0.30mm×40mm were selected. The selected points were: bilateral motor area and foot motor sensory area. The needle was quickly inserted at a 15°Angle between the tip of the needle and the scalp, with the needle handle twisting at the frequency of 200r/min for 2 minutes, uniform reinforcing-reducing method was conducted, retaining needle for 30 minutes.

The treatment was performed once a day, 6 times a week, for 4 weeks totally.

Results and discussion

After treatment, the total effective rate of the treatment group was 86.67%, which was significantly higher than that of the control group of 65.52%, and the difference was statistically significant. The Fugl-Meyer, Berg and MBI scores of the two groups were significantly higher than those before treatment (P<0.05), and the treatment group was significantly higher than the control group (P<0.05).

Mirror therapy, also known as mirror visual feedback (MVF), can enhance the

electromyographic signals of the affected limb through visual feedback, which is conducive to reconstructing the correct cerebral motor pattern2. Transcranial Repetitive Acupuncture is a new type of cephalic acupuncture based on the combination of transcranial stimulation technology and traditional Chinese acupuncture techniques, which can directly transfer the stimulation generated by acupuncture to the cerebral cortex through the cranial bones, thus exerting the brain's function of dominating the movement of the limbs3.

Therefore, transcranial repetitive acupuncture combined with mirror therapy, combining passive and active treatment, can significantly ameliorate the lower limb motor dysfunction after stroke and improve the patients' ability of daily life, which is worthy of clinical application.

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DETECTION OF HEAVY METALS IN FRITILLARIA FRITILLARIA FROM HEILONGJIANG PROVINCE, CHINA

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Abstract. This paper mainly introduces the detection of heavy metals in Fritillaria Fritillaria, an authentic medicine in Heilongjiang Province, China. The content limits of heavy metals such as lead, cadmium, arsenic, mercury and copper in 30 representative batches of Fritillaria Fritillaria from 18 producing areas in Heilongjiang Province were detected respectively. Finally, the analysis shows that the detection result of heavy metals is higher than the quality standard of heavy metals in Chinese traditional medicine in China Pharmacopoeia (2020 edition).

Keywords: Fritillaria Fritillaria, Heavy metal detection

Fritillaria ussuriensis Maxim. is the dried bulb of Fritillaria ussuriensis maxim. Fritillaria Fritillaria has a long medicinal history, and its medicinal efficacy varies with the varieties used in different historical periods. Fritillaria Fritillaria is also known as Fritillaria, Fritillaria and Fritillaria. It has the functions of clearing away heat, moistening lung, relieving cough and resolving phlegm [1]. It is also found that Fritillaria Fritillaria has anti-inflammatory [2], anti-hypertension [3], anti-ulcer , anti-oxidation [4] and anti-cancer effects. Fritillaria Fritillaria is widely cultivated in Heilongjiang Province, China, and the main planting areas are concentrated in Tieli, Hailin, Shangzhi, Huanan, Daxinganling and other areas. It is an authentic Chinese herbal medicine commodity in Heilongjiang Province, China. Fritillaria Fritillaria contains a variety of active components, such as alkaloids, alkaloid glycosides, adenosine and polysaccharides, among which steroidal alkaloids are the main bioactive components [5]. Therefore, all of the above can show that Fritillaria Fritillaria has high clinical medicinal value.

However, due to the unreasonable use of pesticides and fertilizers in the planting process of Chinese herbal medicines, heavy metals will exceed the standard, and the enrichment in the body will cause substantial damage to human organs such as liver and kidney, thus affecting the quality of Chinese herbal medicines. In order to meet the international requirements, it must be consistent with the limit index of heavy metals and arsenic salts in green medicinal plants and preparations stipulated in the Green Industry Standard for Import and Export of Medicinal Plants and Preparations [6], and it is consistent with the standard for the determination of heavy metals and harmful elements in eight medicinal materials, namely Glycyrrhiza uralensis Fisch, Salvia Miltiorrhiza, Astragalus membranaceus, Lonicera japonica Thunb, Panax quinquefolium, Paeonia lactiflora, Colla Corii Asini and Lycium barbarum, according to the China Pharmacopoeia 2020. It is stipulated that Pb≤5.0 mg/kg, Cd≤0.3 mg/kg, Hg≤0.2 mg/kg, As≤2.0 mg/kg and Cu≤20.0 mg/kg in the above medicinal materials.

Objective

The content of heavy metals in Fritillaria Fritillaria in Heilongjiang Province, China was determined by the method of atomic absorption spectrometry for the determination of heavy metals and harmful elements in China Pharmacopoeia, 2020 Edition.

Materials and methods

According to China Pharmacopoeia (2020 edition) Part IV (General Rule 2321), the contents of lead and cadmium were determined by graphite furnace atomic absorption spectrophotometry, copper by atomic flame absorption spectrometry, arsenic by hydride generator and mercury by cold steam absorption spectrometry. The contents of lead and cadmium were determined by graphite furnace atomic absorption spectrometry, copper by atomic flame absorption spectrometry, arsenic by hydride generator and mercury by cold steam absorption spectrometry.

Results and discussion

In the detection of Fritillaria Fritillaria in Heilongjiang Province, it was found that the limit of 30 Fritillaria samples from 18 producing areas was within the limit except Shenshu Town, tieli city, Shuangfeng Town, tieli city, Taoshan Town, tieli city, Zhan Qingxin from Jiapigou Forest Factory of Mudanjiang Hailin Forestry Bureau, and Xu Xiaobin from Tribe Forest Factory of Mudanjiang Hailin Forestry Bureau. The content of cadmium in Fritillaria from other producing areas exceeded the specified limit, and the content of copper, lead and arsenic was much higher than the quality standard. The experimental results show that the contents of heavy metals in Fritillaria Fritillaria in Heilongjiang Province are all qualified or even far higher than the quality standard except for the high cadmium content in some producing areas.

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RECOGNITION AND TREATMENT OF ALZHEIMER'S DISEASE IN CHINESE TRADITIONAL MEDICINE

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Abstract. The pathogenesis of Alzheimer's disease, a geriatric disease, is complex and has a single therapeutic target. In recent years, the role of low-toxicity and high-efficiency TCM components in chronic diseases has been increasingly recognized by the global medical community. This article focuses on the understanding of AD in traditional Chinese medicine and the new direction of Chinese medicine in treating AD.

Keywords: Alzheimer's disease, traditional Chinese medicine, etiology and mechanism of disease, holistic diagnosis and treatment (TCM), acupuncture

Alzheimer's disease AD is a relatively common degenerative disease of the central nervous system in old age, with memory impairment and behavioral changes as the main clinical manifestations [1]. Traditional Chinese medicine (TCM) treatment has the advantage of comprehensive analysis from multiple perspectives and targets. By reviewing the relevant literature on the treatment of AD with TCM in recent years, this article elaborates on the understanding of traditional Chinese medicine on AD, with a view to providing new ideas and directions for the prevention and treatment of AD.

1 Chinese medicine's understanding of AD

Traditional ancient medicine classified AD as «dementia», which was first seen in the Han Dynasty

book «Hua Tuo's Secret Biography of the Divine Physician», and then in the Ming Dynasty, there were detailed and perfect records of its symptoms, etiology, and treatment methods [2]. Ming Dynasty physician Zhang Jingyue first proposed «dementia» as an independent disease in Jingyue Quanshu - Miscellaneous Evidence Mol» [3].

Dementia is a kind of abnormal disease in which the organism's medulla is eliminated and the brain is reduced, and the divine mechanism is out of use, and it is mostly a deficiency of the essence and a deficiency of the standard, with the location of the disease in the brain, but it is closely related to the heart, the liver, the spleen, and the kidneys [4]. The medical practitioners of the past generations believed that the occurrence of this disease is due to the deficiency of yin and essence, insufficient marrow, plus phlegm and stasis of blood and other toxic evils within, deficiency, phlegm, silt and each other, damage to the brain and the brain to lose the hearing of the original spirit. «Suwen - regulating menstruation» cloud: «blood and in the lower, gas and in the upper, chaotic and good forgetfulness [5].»

2 Treatment of AD in TCM

The etiology of AD in Chinese medicine is complex, and ancient medical doctors started from different perspectives, grasped the whole picture, and recognized the evidence to treat . For example, for the case of insufficiency of the medulla oblongata, the Seven Fortune Drink should be added and subtracted; for the case of deficiency of the spleen and kidney, the Returning Shao Dan should be added and subtracted; for the case of phlegm and turbidity clouding the orifices, the Wash the Heart Tang should be added and subtracted; and for the case of blood stasis and stagnation, the Tongkewang and Xuebang Tang should be added and subtracted. As the academic theory system and diagnosis and treatment level of Chinese medicine are becoming more and more scientific, the medical profession has made considerable progress in improving the cognitive impairment and life ability of patients. For example, academician Zhang Boli [6] took replenishing deficiency, relieving depression and dispersing stagnation as the main therapeutic method, and emphasized the combination of all methods in the use of medicines, so as to make the brain marrow be enriched.

By analyzing and organizing the literature in recent years, it is found that the selection of clinical acupuncture points for the treatment of AD is mostly based on the head, face and waist and back acupuncture points, and most of these high-frequency acupuncture points have the efficacy of waking up the brain and opening up the mind, tonifying the spleen and kidney, and benefiting the vitality of qi and blood. Some literature [57] pointed out that, in the selection of points for the treatment of AD, it is necessary to closely follow the two ends of the virtual and real, and flexibly allocate points. AD disease is located in the brain, and it is important to use the head points and duchen points to regulate the mind and open up the orifices to wake up the brain, and combined with the treatment of internal organs and the limbs, it is necessary to take them far away, to ninish the heart and tonify the kidneys, and to strengthen the spleen and benefit the intellect.

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TREATMENT OF VULVAR LICHEN SCLEROSUS BY TRADITIONAL CHINESE MEDICINE

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Abstract. Vulvar lichen sclerosus (VLS) is also known as «vulvar white lesions», the etiology is not clear, multi-factor disease, belongs to local benign lesions. VLS patients in the clinical manifestations of vulva pruritus, pain, severe rupture, and even cancer, visible VLS not only affect women's daily life, serious even can endanger life safety, therefore, effective treatment of the disease, relieve the pain of patients urgent.

Keywords: vulvar lichen sclerosus ;Traditional Chinese medicine treatment ;acupuncture

The latest International Association for Vulvar Disease Research has not clarified the pathogenesis of vulvar sclerotic moss. The pathogenesis may be neurovascular dystrophy in the deep connective tissue of the vulva, leading to the skin lesions covering it, or it may be related to the subepithelial injury caused by its own anti-collagen fiber antibodies. At present, there is no standardized unified treatment plan. Western medicine mainly uses drugs and physical therapy. However, the simple use of drugs is not effective, and there are many side effects, easy to relapse. And physical therapy options are many, as follows:

(1) vulvar focused ultrasound treatment [1] is the use of ultrasound good penetration and localization, without destroying the surface tissue, through the thermal effect to destroy the pathological dermis and subcutaneous tissue, promote local microcirculation and tissue repair, can effectively alleviate the symptoms of vulvar sclerosing moss patients, improve the skin texture. However, after treatment, it causes local burns, blisters, superficial ulcers and other adverse reactions.

(2) Amino ketovaleric acid photodynamic therapy [2] means that after external application of the photosensitive drug hydrochloric acid, amino ketovaleric acid can be selectively absorbed by the diseased tissue, and under the excitation of visible light or near infrared light, active oxygen species such as singlet oxygen can be produced, which causes oxidation and killing effect, and causes the necrosis of the diseased tissue to fall off, achieving the effect of non-invasive cure.

(3) Dot matrix CO2 laser treatment[3] is the use of Smart Xide type 2 Dot matrix CO2 laser therapy instrument (DEKA Company, Italy) for treatment (once a month, 3 times for 1 course). It has the advantages of short treatment time, small pain, non-invasive, fast recovery, and does not change the appearance and local function of the vulva.

(4) Recombinant human interferon α-2b gel [4] is applied to the affected area, which can improve the immune function of the affected area, enhance local nutrition, play the role of anti-inflammation, anti-itching and other repair local functions, and can assist traditional Chinese medicine treatment.

Vulvar lichen sclerosus belongs to the categories of «Yin itching», «Yin pain», «Yin erosion» and «Yin sores» in traditional Chinese medicine. It is believed that this disease is caused by Yin deficiency of liver and kidney, dampness and heat of liver meridian, and loss of vulva to rustling and nursing. TCM treatment is as follows:

(1) Fumigation and washing. Steam fumigation and immersion of liquid medicine directly act on local lesions. The warm liquid medicine can make the skin epidermal telangiectasia, increase the subcutaneous vascular flow, accelerate the drug penetration, and the effect of liquid medicine takes effect immediately. In addition, the efficacy of topical drugs on the damaged skin and mucosa is better, and the clinical efficacy is better.

(2) Local acupuncture. Acupuncture treatment was performed on ashi point [5].

(3) Red light treatment combined with white patch ointment. Red light therapy can promote cell metabolism by enhancing mitochondrial hydrogen peroxide activity, increase glycogen content, protein synthesis and decomposition of adenosine triphosphate to promote cell regeneration, facilitate wound healing, enhance local immunity and improve mucosal microenvironment along with the improvement of leukocyte phagocytosis, and reduce skin inflammation to treat vulvar skin lesions [6].

(4) Chinese medicine preparation rub.

To sum up, TCM improves patients' physique through syndrome differentiation, overall regulation, and then selects different treatment methods for local lesions, which can significantly improve patients' discomfort symptoms and achieve remarkable clinical results.

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DISCUSSION ON DYSMENORRHEA OF ENDOMETRIOSIS FIOM EMOTION OF TRADITIONAL CHINESE MOODINESS

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Abstract. Endometriosis often affects the psychological state of patients, and negative emotions aggravate the development of the disease. Comprehensive treatment should be provided. Traditional Chinese medicine has unique advantages in treating both body and mind, such as soothing the liver and relieving depression, promoting blood circulation, and removing stasis.

Keywords: Endometriosis; Dysmenorrhea; Traditional Chinese Medicine; Emotion; Heart; liver

The main symptom of EMs is pain. Studies have shown that negative factors such as poor quality of life, low mood, and insomnia are closely related to dysmenorrhea [1, 2]. Progression of pain and infertility will increase the psychological burden of patients with EMs, causing anxiety in modern [3].

1. Dysmenorrhea in EMs trigger anxiety

Dysmenorrhea has been defined as a physical and mental disorder [4]. There are common pathological changes in dysmenorrhea and depression in EMs, and there is a positive correlation between the intensity of pain and the degree of anxiety in patients with EMs [5]. Maryam et al[6]concluded that recurrent chronic pain in EMs is the main cause of psychosomatic disorders; Friedl F [7] conducted a psychological assessment of 104 patients with dysmenorrhea in EMs and found that 86.5% showed depressive symptoms, 87.5% had anxiety, and 14.5% were diagnosed with depression; Zhao Ruihua's team[8]investigated 443 patients with EMs, 29.8% had depression, 34.5% had anxiety, and 22.6% had both anxiety and depression; the degree of anxiety or depression in patients with dysmenorrhea in EMs worsened with the degree of pain, and worsened with the duration of the disease[9]. The lack of understanding in the family and society can aggravate the patients' stress state [10].

2. Anxiety and depression aggravate EMs symptoms

Psychosomatic factors in chronic pain can play a role in producing different degrees [11], some scholars have statistics that the rate of dysmenorrhea in women with major depression is 13 times higher than that in women without depression. patients with EMs devote more attention to pain [12, 13], and fall into deeper panic and anxiety.

3.Chinese medicine treatment for EMs dysmenorrhea with anxiety

The heart and the liver work together to maintain the normal operation of blood, «the liver stores blood and the heart carries it out», and dysfunction between the two can lead to blood stagnation. The heart is the organ of God, and the liver is also the organ that regulates God. The Spiritual Pivot says, «The liver stores blood, and the blood sheds the soul.» Liver qi is not comfortable, heart blood is not smooth, long-term stagnation of qi and blood stasis, emotional and emotional anomalies, then become phlegm stasis, which will become the focus of EMs.

Traditional Chinese medicine can change the anxiety state of EMs patients. Personalized health guidance and psychoanalytic therapy, clearing the mind and spirit, channeling and cathartic method, five qing xiang sheng, five elements music therapy, etc. are given according to the psychological state

of the patients, which can significantly adjust the psychological state of the patients, establish confidence in overcoming the disease, and promote the recovery of the patients' body[14][15].

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META-ANALYSIS OF THE EFFECTIVENESS OF QILIQIANGXIN CAPSULE IN THE TREATMENT OF HEART FAILURE

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Abstract. Objective: To systematically evaluate the treatment of heart failure with Qiliqiangxin capsules. Methods: The clinical studies of Qiliqiangxin capsule in the treatment of heart failure published in the past five years were retrieved, and six clinical randomized Scientific control were included. RevMan5.3 software was used to conduct a meta-analysis of the indicators of the efficacy of improving heart function. Results: Six clinical randomized Scientific control, a total of 520 patients, including Qiliqiangxin capsule group 260 and control group 260, showed statistically significant (OR=3.96 [2.26, 6.95], P<0.00001). Conclusion: Qiliqiangxin capsules can effectively improve various indicators in patients with heart failure.

Keywords: Qiliqiangxin, capsule, Heart failure, Meta-analysis, Compound, Clinical

Qiliqiangxin capsule was approved by China Foods Limited and Drug Administration in 2004 as a traditional Chinese patent medicines and simple preparations for the treatment of heart failure. It has the effect of enhancing efficacy and reducing toxicity. Combined use is conducive to the rehabilitation of patients. This study mainly explores the therapeutic effect of Qiliqiangxin capsules on chronic heart failure.

Objective

To systematically evaluate the treatment of heart failure with Qiliqiangxin capsules.

1. Materials and methods

1.1. Search method: «QiliQiangxin Capsule» as the title of CNKI, including journal papers, Thesis, conference reports, etc; Search under the title «QiliQiangxin» and «QLQX» in the pubmed and CochranLibrary databases. The search period is from July 2018 to July 2023, and there are no language or research type restrictions during the search process.

1.2. Inclusion criteria: 1) Literature reporting the treatment of chronic heart failure with Qiliqiangxin; 2) The drug dosage form is capsule; 3) Clear dosage; 4) The basic data such as gender, age, and course of disease of patients between groups are comparable and consistent, and the balance between groups is good.

1.3. Exclusion criteria: 1) Repeated publication of literature; 2) Research on the mechanism of Lianhua Qingwen action, animal experiments, drug evaluation, review, meta-analysis, guidelines, and expert consensus; 3) A study where the total number of cases is not specified or data cannot be obtained.

1.4 Quality evaluation The Cochrane method group was used for evaluation. The opinion was based on a randomized Scientific control (RCT), and the quality of the article was ultimately decided by the author.

2. Results and discussion

2.1. Document retrieval: A total of 586 literatures were preliminarily searched in the electronic database. Through reading the titles and abstracts of the remaining 264 literatures, the literatures that do not meet the inclusion criteria were further excluded through reading the full text, and the six clinical randomized Scientific control were finally included through careful screening.

2.2. Clinical efficacy analysis There are 6 clinical Randomized controlled trial in efficacy analysis, and there is no statistical heterogeneity between the results of each study (p=0.85, I^2= 0%), therefore a FixedEffectModel was used for meta-analysis. The results showed that there was statistical significance (p<0.00001) between the Qiliqiangxin capsule group and the control group. The funnel analysis graph for this indicator shows left and right asymmetry, indicating the possibility of deviation.

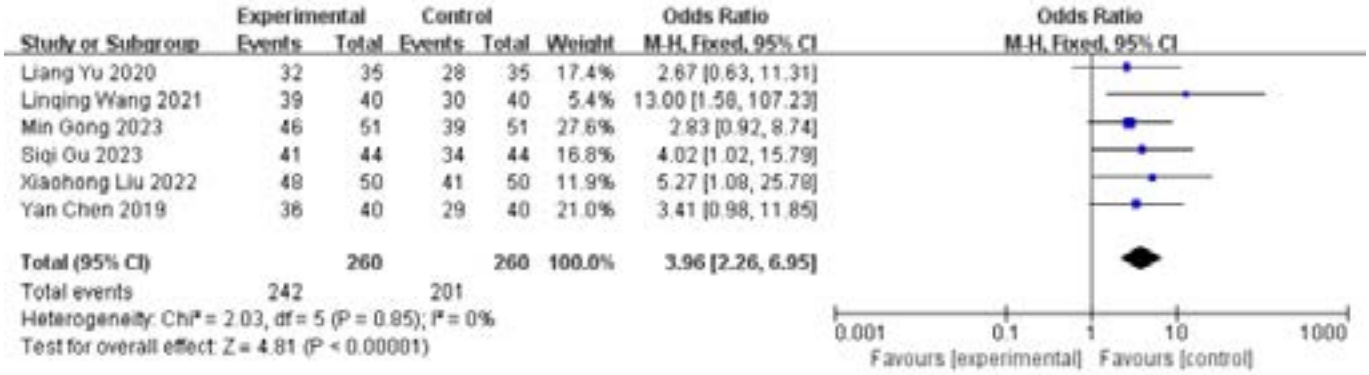

Figure 1 Forest chart of cardiac function efficacy analysis

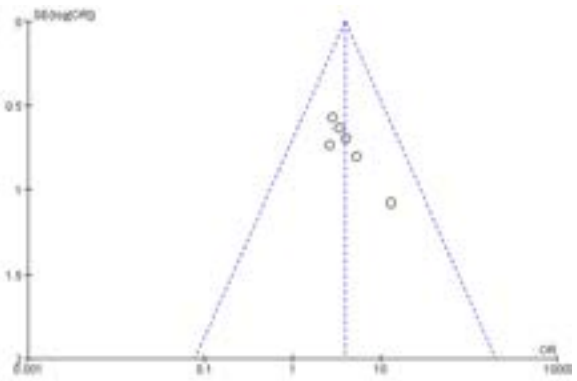

Figure 2 Funnel chart of cardiac function efficacy analysis

2.3 Discussion Modern research shows that Qiliqiangxin capsule can reduce angiotensin II, improve the thickness of ventricular wall, inhibit the increase of Aldosterone content, and is conducive to improving the structure and function of chronic heart failure, showing the comprehensive advantages of multiple ways, links, and targets of compound Chinese medicine. In 6 articles, adverse reactions were observed in 4 of the observations, but they were mild and tolerable without special treatment, indicating that Qiliqiangxin capsule is not only effective but also safe in treating heart failure. The application of meta-analysis in this study can provide richer and clearer conclusions for the treatment of heart failure with Qiliqiangxin capsules.

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APPLICATION OF TRADITIONAL CHINESE MEDICINE PSYCHOTHERAPY FOR DEPRESSION

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Abstract. This review summarizes the application of traditional Chinese medical psychotherapy methods in the treatment of depression. Through a search of relevant literature, we summarize the role of various TCM psychotherapy methods in the treatment of depression and explore the shortcomings and future research directions.

Keywords: Chinese traditional medicine, psychological diagnosis and treatment, depression, acupuncture, qigong, taijiquan, five elements music therapy

Depression is a common mental disorder, which is complex and difficult to treat. Although the traditional drug treatment can relieve the symptoms, it also has the problems of side effects and poor efficacy. In recent years, more and more studies have shown that the psychological diagnosis and treatment methods of TCM also have a certain curative effect on the treatment of depression.

Objective

The paper aims to explore the efficacy of traditional Chinese medical psychological treatment methods on depression, and to provide reference and guidance for clinical treatment.

Materials and Methods

Material: This paper reviews the research on traditional Chinese psychological diagnosis and treatment methods in recent years, covering the application of traditional Chinese medicine, acupuncture, Qigong, Taijiquan, five elements music therapy and other methods in the treatment of depression.

Methods: This paper through literature search and screening, and systematic collation and analysis, specific methods include the following steps: 1. Set the search terms, including «depression», «Traditional Chinese medicine», «acupuncture», «Qigong», «Tai Chi», "five elements music therapy"etc.; 2.Retrieved in multiple academic databases (such as CNKI, PubMed, etc.); 3.Preliminary screening according to the title, abstract and keywords of the literature, and exclude the literature unrelated to this review; 4.The screened articles were read and analyzed, classified and summarized; 5. Summarize and discuss the shortcomings and prospects in the study.

Results and Discussion

Results: This paper summarizes the application effects and mechanisms of various TCM psychological diagnosis and treatment methods in the treatment of depression.Studies have shown that TCM psychological diagnosis and treatment methods can relieve the symptoms of depression, improve the quality of life, and have lasting efficacy [1-2]. Among them, acupuncture [3-4], qigong [5], taijiquan [6] and five elements music therapy [7]. These non-drug treatments have good application prospects.

Discussion: The application of TCM psychological diagnosis and treatment methods in the treatment of depression has its own unique advantages, such as less side effects, lasting curative effect and so on. However, there are still some problems in the current research, such as the small sample size, insufficient scientific research methods, and difficult to conduct control experiments. In addition, the specific treatment mechanism and action route of TCM psychological diagnosis and treatment methods have not been fully defined. Therefore, future studies need to further strengthen the research on the application of TCM psychological diagnosis and treatment methods in the treatment of depression, explore its specific treatment mechanism and action pathway, and improve its clinical application value.

Results and discussion:

After comprehensively analyzing the research results in recent years, TCM psychological diagnosis and treatment method has certain application value in the treatment of depression. Traditional Chinese medicine, acupuncture, qigong, Taijiquan, five elements music therapy and other TCM psychological diagnosis and treatment methods can relieve the symptoms of depression, improve the quality of life, and the curative effect is lasting. However, there are still some problems in the research, and it is necessary to further strengthen the research on the application of TCM psychological diagnosis and treatment methods in the treatment of depression, explore its specific treatment mechanism and action path, and improve its clinical application value. In short, the application of TCM psychological diagnosis and treatment methods in the treatment of depression is a direction worth in-depth exploration, with a broad application prospect and development space.

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RESEARCH PROGRESS OF NEEDLE-WARMING MOXIBUSTION IN TREATING ANGINA PECTORIS OF CORONARY HEART DISEASE

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Abstract. In recent years, the incidence of angina pectoris is increasing year by year, which is a serious threat to people's health.The study shows that needle-warming moxibustion, as a traditional Chinese medicine therapy, has been applied to the clinical treatment of coronary heart disease angina pectoris because of its remarkable characteristics and advantages, and has achieved a definite effect.

Keywords: needle-warming moxibustion; angina Pectoris; coronary heart disease

With the acceleration of social rhythm, the improvement of living standards, and the gradual change of living habits including diet structure, the incidence of coronary heart disease (CHD) is increasing year by year. Angina pectoris of CHD is a common clinical symptom of patients with coronary

heart disease. The main clinical manifestation is group syndrome due to coronary Atherosclerosis stenosis, precordial pain caused by transient myocardial ischemia and hypoxia. Paroxysmal pain is mainly located in the posterior part of the sternum and can radiate to the anterior and left upper limbs. At present, nitrates or aspirin are often used in clinical treatment, but the effect is not ideal. Most patients still have symptoms such as angina pectoris after treatment.

As a traditional Chinese medicine therapy, needle-warming moxibustion has been used in the clinical treatment of CHD and angina pectoris due to its advantages of small side effects, multiple pathways, multiple targets, etc. Clinical studies have found that needle-warming moxibustion can effectively improve the curative effect of angina pectoris of CHD and reduce the symptoms of angina pectoris.

Objective

This article reviews the current situation of clinical research on needle-warming moxibustion in treating angina pectoris of CHD, and attempts to clarify the efficacy and mechanism of needle-warming moxibustion in treating angina pectoris of CHD, with a view to providing doctors with reference.

Materials and methods

Needle-warming moxibustion refers to a kind of acupuncture plus moxibustion in which the needle is lit at the end of the needle and the heat is transmitted to the acupoint through the needle body for treatment. It combines the mechanical stimulation of acupuncture with the warm and medicinal reactions of moxibustion to form a composite stimulus, which has a good effect on promoting qi, promoting blood circulation, and relieving pain.

Results and discussion

The study found that needle-warming moxibustion at Shenmen, Neiguan, Zusanli, Sanyinjiao and other points can significantly reduce the levels of blood lipids and serum homocysteine in patients with angina pectoris of CHD, and improve the symptoms of angina pectoris [1-2]. Zhao Lina [3] conducted needle-warming moxibustion treatment on Xinshu, Pishu, Feishu and other points. The results showed that the plasma viscosity decreased, and the levels of Vascular endothelial growth factor and nitric oxide increased, which could significantly improve the patients' hemodynamic indicators, vascular endothelial function and myocardial ischemia symptoms. In addition, Yan Aizhen [4] also observed the effect of needle-warming moxibustion therapy on blood lipid and hemorheological indexes in 136 patients with angina pectoris of CHD, and also believed that needle-warming moxibustion has high clinical promotion value in treating patients with angina pectoris of CHD.

To sum up, relevant clinical studies show that needle-warming moxibustion can significantly improve the symptoms of angina pectoris in patients with CHD, reduce the number of angina attacks, and improve a variety of laboratory indicators. Needle-warming moxibustion has the characteristics of simplicity, convenience, efficiency and cheapness. It is easy to apply in clinical practice, convenient and economical, and has small adverse reactions. Therefore, when treating patients with angina pectoris of CHD clinically, needle-warming moxibustion can be used as one of the treatment methods.

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PROGRESS IN TREATING ACUPUNCTURE FOR INSOMNIA AFTER STROKE

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Abstract. Acupuncture treatment for post-stroke insomnia is an area of intense research. Studies have shown that acupuncture therapy can relieve post-stroke insomnia through multiple mechanisms, such as regulating the neuroendocrine system, improving sleep structure, and promoting blood circulation. In addition, acupuncture therapy can also improve the quality of life and mental health level of patients.

Keywords: acupuncture therapy; stroke; insomnia

Stroke is a common neurological disorder, whose main pathological feature is the occurrence of ischemic or hemorrhagic lesions in the cerebral blood vessels, resulting in impaired brain function. The recovery process after stroke is a complex process, and patients are often accompanied by a variety of complications, among which insomnia is a common clinical symptoms, mainly including difficulties in falling asleep, waking up many times, early waking up or poor sleep, poor sleep quality, daytime fatigue, inattention, emotional instability and so on. These symptoms can cause patients to feel tired and sleepy during the day, which can affect work, study and quality of life [1]. In recent years, acupuncture therapy has attracted wide attention in the treatment of post-stroke insomnia, by regulating the physiological functions and psychological state of patients to relieve the symptoms of insomnia.

Objective

This paper aims to systematically review and comprehensively analyze the recent progress in acupuncture treatment of insomnia after stroke to further understand its efficacy and mechanism. Through the comprehensive analysis of the relevant literature, summarize the existing research results, explore the effect of acupuncture therapy on insomnia in stroke patients, and propose the directions and challenges of future research.

Materials and Methods

During the treatment, the patient was placed in the supine position, and the doctor disinfected the patient's skin with alcohol and used fine needles for acupoint stimulation. After each acupoint is stabbed into the skin, the doctor will make a moderate rotation and pull to produce a stimulating effect. After the needling procedure, the doctor keeps the patient calm and relaxed, usually for 20-30 minutes per treatment [2].

Results and conclusions

According to the research progress of acupuncture treatment for post-stroke insomnia, it shows that acupuncture treatment has a certain effect in improving insomnia symptoms. Through mechanisms such as regulating the neuroendocrine system, sleep structure and improving blood circulation, acupuncture treatment can significantly improve sleep quality and associated symptoms in insomnia patients after stroke [3].

Clinical studies and practice show that acupuncture treatment is a safe and effective option[4]. Easy to clinical application, convenient, economical, with small adverse effects. In clinical treatment has obvious effect on the improvement of difficulty in falling asleep, shallow sleep, easy to wake up and other symptoms.

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CLINICAL STUDY ON THE TREATMENT OF POST-STROKE CONSTIPATION BY PENETRATION OF ELONGATED NEEDLE COMBINED WITH AURICULAR PLASTER THERAPY

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Abstract. Observe the clinical efficacy of penetration of elongated needle combined with auricular plaster therapy on post-stroke constipation. Methods: Sixty patients with post-stroke constipation were randomly divided into a control group and a treatment group, with 30 cases in each group. The control group was treated with traditional acupuncture combined with auricular plaster therapy, while the treatment group was treated with elongated needle penetration combined with auricular plaster therapy. After the same treatments, the clinical efficacy of the two groups was evaluated. Results: Comparing before and after treatment, the CCS and PAC-QOL scores in both groups were lower than before (P<0.05), while the overall clinical efficiency rate of the treatment group was higher than the control group (86.7% vs 63.3%, P<0.05). Conclusion: Both treatments improved symptoms in patients with PSC. Clinical efficacy of elongated needle penetration combined with auricular plaster therapy greater than traditional acupuncture. This innovative Traditional Chinese Medicine (TCM) approach deserves to be known.

Keywords: Clinical study, Auricular plaster therapy, Elongated needle, Post-stroke constipation, Traditional Chinese medicine

Stroke is a cerebrovascular disease with high rates of disability and mortality worldwide, representing a major economic burden on global public health [1]. Constipation is one of the most common complications in stroke patients, and epidemiology shows that the prevalence of post-stroke constipation (PSC) is 30% to 60% [2], which has a serious impact on patients' quality of life.

Elongated needle and auricular plaster therapy is one of the characteristic therapies of TCM[3-4]. It is based on the TCM concept of holism to adjust the function of internal organs and meridians, qi and blood, and to treat PSC in a more targeted way.

Objective

To observe the clinical efficacy of penetration of elongated needle combined with auricular plaster therapy on post-stroke constipation.

Materials and methods

The patients enrolled in this study from 1 April 2021 to 1 April 2022 were from the Fifth Inpatient Department of Acupuncture in the Second Hospital of Heilongjiang University of Chinese Medicine. The 60 patients were randomly divided into treatment and control groups, with 30 patients in each group. Before treatment, there was no statistical difference between the two groups (P>0.05).

Auricular plaster therapy: The skin is routinely sterilised. Small granular medicines, such as Wangbuliuxingzi (Semen Vaccariae), are attached to the ear acupoints with adhesive tape.

Control group: Treatment with conventional filiform needle (0.30*40mm acupuncture needle) combined with auricular plaster therapy, and the acupoints were Tianshu (ST25), Guilai (SY29), Zusanli (ST36), Shangjuxu (ST37), Dachangshu (BL25) and Xiaochangshu (BL27).

Treating group: Treatment with elongated needle (0.40*125mm acupuncture needles) through acupuncture combined with auricular plaster therapy, and the acupoints were Tianshu (ST25) through Guilai (SY29), Zusanli (ST36) through Shangjuxu (ST37) and Dachangshu (BL25) through Xiaochangshu (BL27).

There were two treatment courses in this trial. One treatment course lasted seven days, with days one to six being treatment days and day seven being a rest day. Researchers will assess the clinical effectiveness of CCS and PAC-QOL scores in patients with post-stroke constipation.

Results and discussion

At the end of the treatment course, the researchers found that the data were statistically significant. When the data were compared, the overall clinical efficacy rate of the treatment group was higher than the control group (86.7% vs 63.3%, p<0.05). Before treatment, CCS and PAC-QOL scores were (18.07±2.60) and (68.50±6.84) in the control group and (18.00±2.53) and (67.97±5.10) in the treatment group. After treatment, the CCS and PAC-QOL scores were (12.73±1.92) and (45.03±8.30) in the control group and (10.73±1.68) and (34.60±9.00) in the treatment group. The CCS and PAC-QOL scores were lower than pre-treatment in both groups, and lower in the treatment group than in the control group (p<0.05).

This data can prove that both treatment groups can improve the constipation symptoms of PSC patients, but the improvement of symptomatic condition is more obvious in the treatment group. According to the above information, the efficacy of elongated needle penetration combined with auricular plaster therapy is better in the treatment of post-stroke constipation. This innovative treatment method of TCM deserves to be further popularized.

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PROGRESS OF RESEARCH ON THE INTERVENTION OF TRADITIONAL CHINESE MEDICINE IN FEMORAL HEAD NECROSIS: ANALYSIS FROM THE PERSPECTIVE OF NON-CODING RNA

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Abstract. Non-coding RNA is a class of RNA transcribed from the genome that regulates protein coding. Studies have proved that non-coding RNA can regulate the expression of bone marrow mesenchymal stem cells, bone metabolism and vascular repair, and participate in the pathogenesis of femoral head necrosis. There are also many experiments on RNA expression, and related research is of great significance for the determination of the mechanism of femoral head necrosis and the enrichment of diagnosis and treatment methods. This article summarizes the relevant literature in CNKI and PubMed, summarizes the research progress in this field in recent years, connects traditional Chinese medicine intervention with it, and provides a new theoretical basis and direction for clinical diagnosis and targeted therapy of diseases.

Keywords: Non-coding RNA; ONFH; MiRNA; LncRNA; Traditional Chinese Medicine

With the continuous deepening of ONFH research, a large number of studies have found that non-coding RNA (ncRNA) is involved, and the process involves a variety of target genes and multiple signaling pathways. The author found through research that ncRNA can directly or indirectly participate in BMSCs expression, bone metabolism and vascular repair process through certain specific pathways, and because traditional Chinese medicine has a significant effect on this disease, this paper also elaborates on the research progress from the perspective of ncRNA.

Objective

By summarizing the relevant literature within CNKI and PubMed, this paper reviewed the research progress in this field in recent years, linking Chinese medicine interventions to it, and providing a new theoretical basis and direction for the clinical diagnosis and targeted treatment of the disease.

Materials and methods

The literature included in this study was obtained from CNKI and PubMed databases, and the search period was from 2010-1-1 to 2023-06-30, and for CNKI, the search strategy was formulated as {theme=»ONFH «AND «ncRNA «}, for PubMed, the search strategy was formulated as {«ONFH»[All Fields] AND «ncRNA»[All Fields]} to screen the literature related to TCM treatment, and finally 38 documents were obtained.

Results and discussion

A large number of studies have shown that traditional Chinese medicine (TCM) has an outstanding effect in the treatment of ONFH. TCM classifies this disease under the category of «bone paralysis», and the causative factors are mainly «phlegm», «blood stasis» and «deficiency», The main causative factors are «phlegm», «blood stasis» and «deficiency», of which «phlegm and blood stasis inter-conjugation» is the symptom, and «deficiency of liver and kidney» is the root cause. The holistic concept of Chinese medicine and evidence-based treatment has the advantages of multi-level and multi-targets, which can improve bone metabolism and rebuild bone balance by interfering with multiple target genes and signaling pathways. The analysis of clinical efficacy from the perspective of ncRNA has also injected unique vitality into this discipline, and this part summarizes the mechanism by which TCM acts on ONFH through this perspective, see the Figure.

1 Monomer drug Cynoglossum polysaccharide (APP-AW) is the main component of Cynoglossum, and APP-AW pretreated at 50 μg/ml for 48 h, could maintain cell survival, promote osteogenic differentiation, and inhibit apoptosis in the dexamethasone-induced ONFH model, a process that was achieved by enhancing the association between miR-107 and mediating the Wnt /β-catenin signaling pathway [1]. Also able to promote the proliferation of BMSCs are Puerarin and Astragali polysaccharide, which are both able to achieve regulation by altering certain miRNAs.

2 Compound drugs In the formula of Sheng Bone Rejuvenation Pill, the monarch drugs Epimedium and Deer Antler Gum nourish the liver, and strengthen bones. In a trial, researchers found that Sheng Bone Rejuvenation Pill promoted the osteogenic differentiation of BMSCs via the FKBP52/GRα/miRNA-708 signaling pathway, inhibit lipid differentiation of BMSCs [2].

In this paper, we have reviewed the progress of ncRNA research in ONFH. By studying one or a few characteristic ncRNAs, it makes it possible to understand the mechanism of action of the meshwork of many RNAs and pathways.The starting point of TCM treatment is «activating blood circulation and removing blood stasis, tonifying the kidneys and strengthening the bones». How to combine «filling the marrow» with promoting the proliferation and differentiation of BMSCs, how to combine «tonifying the kidney and strengthening the bone» with bone metabolism, and how to combine «nourishing blood and activating blood circulation» with vascular endothelial repair? How to combine «tonifying the kidney and strengthening the bone» with the role of promoting bone metabolism, and how to combine «nourishing the blood and activating the blood» with vascular endothelial repair are worthy of in-depth consideration by researchers.

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EFFECTS OF ACUPUNCTURE COMBINED WITH AURICULAR POINT STICKING ON PATIENTS FOR INSOMNIA AFTER STROKE: A PRO-TOCOL OF SYSTEMATIC REVIEW AND META-ANALYSIS

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Abstract. Post-stroke insomnia is one of the most common complications of a stroke. In recent years, the clinical use of acupuncture combined with auricular point sticking for insomnia after stroke has been effective in clinical application. However, there has been no meta-analysis of their synergistic effect. Therefore, our study aimed to perform a systematic review and meta-analysis to investigate the effect of acu-puncture combined with auricular acupoint sticking for post-stroke insomnia, which can provide some new ideas for future clinical research.

Keywords: Acupuncture; Auricular point sticking; Stoke; Insomnia; Meta-analysis; Systematic re-view.

Stroke is a cerebrovascular disorder characterized by the sudden onset of symptoms and clinical signs1. There are many complications after a stroke, post-stroke insomnia (PSI) is a highly prevalent compli-cation after stroke and affects 37-59% of stroke patients2. Therefore, it is critical to understand PSI and explore its appropriate treatment. The World Health Organization (WHO) recommended acupuncture as an alternative and complementary strategy for stroke treatment and

for improving stroke care. Ac-upuncture is able to regulate the functioning of the heart and brain through stimulation of certain acu-points on the body, and it also had the effect of reducing sleep latency and increasing sleep duration and sleep efficiency. Besides, nerves and blood vessels are densely packed in the auricle, which can promote blood circulation and reduce the excitability of sympathetic nerves by stimulating auricular points, so as to improve the quality of sleep3. A number of studies have also proven that acupuncture combined with auricular point sticking is effective in the treatment of post-stroke related symptoms such as depression, spasm, fatigue, and so on. A recent study conducted in China showed good effects of body acupuncture combined with auricular point sticking therapy, which is safe and effec-tive for post-stroke insomnia, in the absence of addiction and dependence. Although acupuncture combined with auricular sticking for PSI has achieved positive results in previous studies, the evidence of clinical randomized controlled trials of acupuncture combined with auricular point sticking for PSI is limited, and there is no systematic review and meta-analysis of the combination of the two. Therefore, we will conduct a systematic review and meta-analysis protocol, and further evaluate the efficacy and safety of acupuncture combined with auricular point sticking in the treatment of PSI when the evidence of clinical controlled trials increases, so as to provide more evidence for clinical practice.

Objective

This systematic review is mainly to determine the efficacy of acupuncture combined with auricular point sticking in the treatment of post-stroke insomnia. A new method for clinical treatment of PSI may be developed through this study.

Materials and methods

In accordance with the guidelines, this systematic review protocol was registered with the Internation-al Prospective Register of Systematic Reviews (PROSPERO), registration number is CRD42023398616.We will include only randomized controlled trials (RCTs) of acupuncture com-bined with auricular point sticking in the treatment of PSI in this review, regardless of language restriction. If there is no detailed randomization method, it will not be included in this review. Non-RCTs, case series, uncontrolled trials, reviews, and experimental studies will not be excluded. A literature search will be performed using 9 electronic medical databases: Embase, PubMed, Cochrane Library, Web of Science and MEDLINE (via Web of Science), Scopus, Chinese Biomedical Litera-ture Database (CBM), Chinese National Knowledge Infrastructure Database (CNKI), and the Wan-fang Database, from the time of establishment through to January, 2023, to identify all articles on acupuncture combined with auricular point sticking for insomnia after stroke. In addition, to ensure that no relevant studies were missed, we traced references to the full text that had been identified. We use a search strategy that combines subject terms with free words. We use Pittsburgh Sleep Quality Index (PSQI) and Insomnia Severity Index (ISI) as the primary outcomes. All studies will be imported to EndNote(X9) and duplicate studies will be deleted. Two researchers will read the title and abstract according to the inclusion criteria and ultimately exclude literature that does not meet the inclusion criteria.

Results and discussion

Currently, acupuncture combined with auricular point sticking is increasingly used in the clinical treatment of PSI. However, to date, no systematic review has been reported. Therefore, there is a need for high-quality systematic reviews and meta-analyses to systematically evaluate randomized con-trolled trials of acupuncture combined with auricular plaster for post-stroke insomnia. It is hoped that this evidence will help clinicians and health policymakers make clinical decisions about post-stroke insomnia and bring good news to patients.

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EFFECTIVENESS OF SCALP ACUPUNCTURE COMBINED WITH BADUANJIN ON PATIENTS WITH MILD COGNITIVE IMPAIRMENT IN PARKINSON'S DISEASE: PROTOCOL FOR A SYSTEMATIC REVIEW AND META-ANALYSIS

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Abstract. This study will provide a high-quality review to evaluate the efficacy and safety of Effectiveness of scalp acupuncture combined with Baduanjin on patients with mild cognitive impairment in Parkinson's disease, providing the medical basis for better clinical decision-making in patients with mild cognitive impairment in Parkinson's disease.

Keywords: Parkinson's disease with mild cognitive impairment; scalp acupuncture; Baduanjin; meta-analysis

Parkinson's disease with mild cognitive impairment (PD-MCI) is a non-dementias stage of cognitive decline that is not severe enough to interfere with daily life significantly but can impair the quality of everyday life[1]. Epidemiological studies reportthat the prevalence rate of MCI in PD patients is 25-50%, the annual probability of progression to PDD is 6-15%, and the conversion rate of progression to PDD within five years is about 39%. At this stage, no specific drug can improve the degree of cognitive impairment of patients, and there is no substantial evidence that it can prevent the progression of dementia. Therefore, how to improve the mental level of patients with PD-MCI, delay the progression of dementia, and improve the quality of life of patients is an urgent unmet need and has become an important topic that needs attention during the rehabilitation period of patients with PD-MCI.

Previous studies have shown that[2]the organic combination of scalp acupuncture and traditional exercises can give full play to the advantages of Chinese and Western medicine and is a feasible intervention for improving mild cognitive impairment in Parkinson's disease. However, previous systematic reviews and meta-analyses have not provided enough evidence to support the hypothesis that, combined with Baduanjin training, scalp acupuncture is more effective than no treatment or other treatments. Therefore, we will conduct a comprehensive search, including recent studies, to determine the effectiveness and safety of scalp acupuncture combined with Baduanjin training in the treatment of mild cognitive impairment in Parkinson's disease, hoping to provide patients with an objective treatment and inspire more peer experts to conduct more related clinical trials in the future.

Objective

This study will provide a high-quality review to evaluate the efficacy and safety of Effectiveness of scalp acupuncture combined with Baduanjin on patients with mild cognitive impairment in Parkinson's disease, providing the medical basis for better clinical decision-making in patients with mild cognitive impairment in Parkinson's disease.

Materials and methods

We searched the randomized controlled trial(RCT) literature on the Effectiveness of scalp acupuncture combined with Baduanjin on patients with mild cognitive impairment in Parkinson's disease, including PubMed, Web of Science, EMBASE, the Cochrane Library, Chinese National Knowledge Infrastructure(CNKI), Chinese Biomedical Literature Database(CBM), Wanfang Database, and Technology Periodical Database(VIP). The search period was from the establishment of the database to April 2023. We defined the primary outcomes of the Mini-mum Mental State Examination(MMSE) and Mont-real Cognitive Assessment(MoCA). Modified Barthel Index(MBI) was detected as a secondary outcome. Literature screening and data extraction were conducted independently by two reviewers, and literature quality was evaluated according to the standards of the Cochrane Collaboration network. Review Manager 5.3 and stata14.0 software were used for data analysis.

Results and discussion

Parkinson's disease with mild cognitive impairment directly affects patients' ability to daily living activities and quality of life . While there have been numerous randomized controlled trials of acupuncture or Chinese herbal medicine over the past 20 years, most have focused on revealing the effects of monotherapy or targeting only one specific dysfunction after Parkinson's disease. With the integration of traditional Chinese and Western medicine, more and more traditional Chinese medicine (TCM) has been adopted in China to meet the needs of the growing patient population. Previous studieshave shown that combining scalp acupuncture and Baduanjin training may be a viable intervention to improve PD-MCI patients. Still, previous systematic reviews and meta-analyses have not provided sufficient evidence to support the hypothesis that combining scalp acupuncture and Baduanjin training is more effective than no treatment or other treatments in treating PD-MCI. Therefore, we will conduct a comprehensive search of recent studies to determine the effectiveness and

safety of scalp acupuncture combined with Baduanjin training in the treatment of PD-MCI, inspiring more peer experts to carry out more related clinical trials in the future.

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TREATMENT OF PEDIATRIC ALLERGIC PURPURA WITH COMPRESS THERAPY

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Abstract. Objective: To investigate the clinical effect of applying traditional Chinese medicine to treat children's allergic purpura. Methods: The clinical data of 10 cases of pediatric arthritic purpura were summarized and analyzed, and traditional Chinese medicines (Cangzhu, Fangfeng, Weilingxian, etc.) were applied to the joints with decoction of water for 30 min each time, three times a day. Results: The symptoms of joint swelling and pain disappeared within 3 days in all cases. Conclusion: The treatment of joint-type allergic purpura with traditional Chinese medicine compress therapy can rapidly relieve the symptoms of joint swelling and pain, and the therapeutic effect is safe and reliable.

Keywords: Chinese medicine compress therapy; pediatric allergic purpura; effect; articular; children

Henoch-Schönlein purpura (HSP), also known as Hen-Schönlein syndrome, is an IgA-mediated systemic small-vessel vasculitis lesion that mainly affects the skin, gastrointestinal tract, joints, and kidneys in children [1]. There is currently no specific treatment for it, with supportive therapy, symptomatic therapy, immunosuppressive therapy, and blood purification therapy as the main treatments [2] . Allergic purpura is called purple spot in Chinese medicine, which is one of the more common bleeding disorders in children and belongs to the category of blood evidence in Chinese medicine. Compression therapy refers to the treatment of Chinese herbal medicines directly applied to children's skin after preparation and modulation. Young children's skin is delicate and sensitive, and their skin and mucous membranes are well absorbed, so the clinical efficacy of the therapy is quite impressive.

Objective

To investigate the therapeutic effect of external application of traditional Chinese medicine on the treatment of pediatric joint-type allergic purpura, Chinese medicine can rapidly relieve the symptoms of joint swelling and pain, and to avoid the adverse effects of adrenocorticotropic hormone application, is introduced as follows.

Materials and methods

In this study, there were 10 cases of children, all of which had the symptoms of children with different degrees of skin rash, abdominal pain, joint swelling and pain and gastrointestinal bleeding. (2) The condition of the children met the diagnostic criteria of pediatric allergic purpura in Practical Pediatrics [3], and was diagnosed. The 43 children were treated with traditional Chinese medicine (TCM) as follows: 10 g of Cangzhu, 10 g of Fangfeng, 15 g of Weilingxian, 15 g of Yanhuisuo, 15 g of Sangzhi, 30 g of Tuiling, 30 g of Cypress, 30 g of Dandelion, and 10 g of Hyssop, decocted in 200 mL of water for 2 days, and then clean gauze was soaked in the medicinal herbs for 10 min, and then gauze dipped in the herbal broth was applied to the swollen and painful joints for 30 min. Then apply the gauze dipped in the herbal soup to the swollen and painful joints for 30 min, 3 times a day.

Results and discussion

The therapeutic efficacy standards were formulated with reference to the Diagnostic and Therapeutic Efficacy Criteria for Traditional Chinese Medicine[4]. Among the 10 cases in this group, 2 children's joint swelling and pain disappeared within 1 day after applying the medicine, 6 cases' joint swelling and pain disappeared within 2 d, and 2 cases' joint swelling and pain disappeared within 3 d. The results were summarized as follows.

Hen-Shu syndrome is a systemic vasculitis syndrome with small vessel vasculitis as the main lesion. Clinical manifestations include skin purpura, arthralgia, abdominal pain, blood in stool, proteinuria and hematuria. Therefore, early diagnosis and treatment of joint-type purpura is very important, and the current treatment of this disease by western medicine is based on adrenal glucocorticoids, calcium, anti-allergy, vitamin C, and symptomatic.

In Chinese medicine, purpura is categorized as «epistaxis», «purple spot», «hematuria» and so on [5], and the pathogenesis of this disease is that wind, dampness, heat and other evils invade

the human body and cause damage to the veins and blood spillage outside the veins. This disease is caused by wind, dampness, heat and other evils attacking the body, resulting in damage to the veins and blood overflowing outside the veins. The external Chinese medicine soup we used is based on Cangzhu, which dries dampness, strengthens the spleen, dispels wind-dampness, and eliminates wind-dampness, and Fangfeng, which dispels wind-dampness in the head, face, and body, as the principal medicine, and Weilingxian, Yanhuosuo, and Mulberry Branches as the subject medicines. Weilingxian is good at walking and can open the channels and expel wind-dampness and have strong pain-relieving effect, Yanhuosuo is pungent and warm, which not only activates the blood, but also promotes the movement of qi, and has a good effect in pain-relief, and Mulberry Branches have the effect of dispelling wind and opening up the channels and joints, as well as reducing swelling and clearing away pain. It also has the effect of dispelling wind and clearing heat, with the adjuvant drugs of Tu Ling, Huang Bai and Dandelion, and with the adjuvant drug of Cow Knee to dispel wind and remove dampness, and to induce medicine downward.

To summarize, the effect of Chinese medicine in treating children's allergic purpura is remarkable, which can promote the children's clinical symptoms to subside. It is worthwhile to popularize the use of this therapy in clinical practice.

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TREAT THE ENDOMETRIOSIS FROM THE SPLEEN

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Abstract. Endometriosis belongs to the category of "dysmenorrhea" and "infertility" in traditional Chinese medicine. The pathogenesis of this disease is mostly liver qi stagnation and blood stasis block. Liver qi stagnation causes blood stasis, and eventually blood stasis blocks the uterus. Synopsis of Golden Chamber records that "See the disease of the liver, know that the liver transmits the spleen, and strengthen the spleen first". At the same time, combining the theory of five elements, treating endometriosis from the spleen, the clinical effect is excellent.

Keywords: Endometriosis, Treatment from spleen, Traditional Chinese medicine, Synopsis of Golden Chamber, Preventive treatment of diseases

Endometriosis is the appearance, growth, and infiltration of endometrial tissue (glands and stroma) outside of the lining of the uterine cavity and the myometrium [1]. According to the clinical manifestations of endometriosis, it belongs to the categories of "dysmenorrhea" and "infertility" in traditional Chinese medicine. Statistics showed that the incidence of endometriosis was on the rise, mostly in women of child-bearing age, with an incidence of about 10% in recent years [2-3]. Western medicine treatment of this disease is poor, and easy to repeat. Traditional Chinese medicine has certain curative effect on this disease.

Objective

By reading the relevant literature, the author summarized the academic thoughts and treatment experience of the relevant doctors in the treatment of endometriosis from the spleen. It is hoped that it can guide clinical treatment and provide more ideas and methods for clinical treatment of endometriosis.

Materials and methods

The literature mainly comes from CNKI and Pubmed. Through literature induction, literature is integrated and analyzed, and valuable information is extracted from it. Finally, the author summarized the medical academic thoughts and treatment experience of treating endometriosis from spleen.

Results and discussion

"Know that the liver transmits the spleen, and strengthen the spleen first" is published in the Synopsis of the Golden Chamber, which shows that the relationship between the liver and the spleen is close. When the liver and spleen function is not

normal, according to the relationship between the five elements, we can know that wood subjugates earth. When treating patients, cutting off the pathway of disease transmission can prevent further disease progression. Therefore, attention to the spleen is very important in the treatment of liver disease.

Endometriosis is mostly caused by blood stasis blocking the uterus [4]. However, more than half of the patients are due to stagnation of liver qi resulting in blood stasis [5]. Therefore, the development of endometriosis is closely related to the liver.

There are many relevant clinical experiences. For example, Professor Zhao Ruihua [6] believes that endometriosis is caused by the combined effect of «depression» and «stasis». Professor Zhao often treats the disease from the spleen. Liuhe Dingzhong decoction is commonly used during treatment. The purpose is to promote blood circulation and relieve depression, while regulating the spleen and stomach of patients. Professor Ma Baozhang [7] also pays attention to the spleen in the treatment of this disease. The professor often adds fructus aurantii and atractylodes macrocephala. Fructus aurantii can strengthen the spleen. Atractylodes macrocephala can remove dampness and regulate the spleen and stomach. Therefore, in the treatment of this disease, in addition to soothing the liver and removing blood stasis, do not forget to treat from the spleen.

Endometriosis is one of the most common gynecological diseases. Statistics show that Chinese medicine intervention can reduce the recurrence rate and fundamentally prevent the recurrence of disease after surgery [8]. Therefore, Chinese medicine from the spleen treatment of endometriosis has a certain reference value and promotion significance.

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EFFECTS OF PHYSICAL-MENTAL EXERCISE INTERVENTION MODE ON COGNITIVE FUNCTION AND SYNAPTIC PLASTICITY IN AGING MICE

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Abstract. Aging is an inevitable law in the course of human life, as one of the most affected human organs, brain aging is affected in it is self-evident [1].Cerebral aging is mainly manifested by atrophy of cerebral cortex volume, loss of neurons, damage to synaptic morphology and plasticity.Aging in the brain is a key risk factor for neurodegenerative disease, which goes through a complex series of cellular and molecular processes that ultimately lead to cognitive decline [2],This seriously undermines the quality of life of the elderly and puts great pressure on families and society. Therefore, it is important to study measures to delay aging and reduce aging-related damage and degeneration.

Keywords: Senescence,physical-mental exercise,Synaptophyton,Brain-derived neurotrophic factor,Behavior

Objective

By observing the effects of the physical-mental exercise intervention mode on the cognitive function and synaptic plasticity of aging mice, the anti-

aging mechanism of the physical-mental exercise intervention mode was discussed

Materials and methods

Forty-eight 12-month-old male C57BL/6 natural aging mice were randomly divided into four groups: elderly control group, physical exercise group, mental exercise group, physical-mental exercise group, with eleven animals in each group;Another eleven 3-month-old male C57BL/6 mice with SPF were taken as the youth control group.The physical exercise group and the mental exercise group were trained on the treadmill and intervened in the environment of the mental group. The physical and mental group used treadmill training combined with the intervention of the god-nurturing environment for 5 days a week for 8 weeks.The elderly control group and young control mice were only reared in a standard environment for 8 weeks, and no intervention was taken during the process. After the end of the intervention,The Morris water maze was used to evaluate the learning and memory ability of each group of mice. Nissl staining to observe neuronal changes in cortex and hippocampal tissue;Transmission electron microscopy to observe the ultrastructural changes of neurons and synapses in cortical tissues. Western Blot detects changes in BDNF and synaptic plasticity-related protein expression in cortical and hippocampal regions.

Results and discussion

1. Mouse water maze experiment results:The results of evasion latency showed that the evasion latency period of mice gradually shortened with the increase of training days.On the first day, compared with the young control group, the escape latency period of mice in the elderly control group, the physical exercise group and the mental exercise group was extended ($P<0.05$).Compared with the elderly control group, the escape latency of mice in the young control group and the physical-mental exercise group was shortened ($P<0.05$), and there was no significant difference ($P>0.05$) in the other groups.On the 2nd, 3rd and 4th days, compared with the elderly control group, the escape latency of mice in each group was significantly shortened ($P<0.05$), and there was no significant difference between the remaining groups ($P>0.05$).The results of space exploration showed that compared with the elderly control group, the percentage of third quadrant residence time of mice in the remaining four groups increased ($P<0.05$).Compared with the physical-mental exercise groups, the percentage of residence time in the third quadrant of mice in the physical-mental exercise group was further increased ($P<0.05$).

2. Results of Nissl staining: the number of Nissl bodies in the cortex and hippocampal CA1 and CA3 areas of the young control group was large, and the structure was clear and the coloration was deep.Compared with the young group, the number of Nithroma in the cortex and hippocampal CA1 and CA3 regions of the elderly control group was significantly reduced ($P<0.01$, Figures 2B, C, D) and the coloration became lighter.Compared with the elderly control group, the number of Nisseri bodies in the cortex and hippocampal CA1 and CA3 regions increased in the physical exercise group, mental exercise group and physical-mental exercise group ($P<0.05$ or ($P<0.01$),And the coloring becomes darker,Compared with the physical group and the mental group, the number of Nistella bodies in the cortex and hippocampal CA1 and CA3 regions of the physical-mental exercise increased significantly ($P<0.05$ or ($P<0.01$), and the coloration became significantly darker.

Results and discussion

1. physical-mental exercise can improve the spatial memory ability of aging mice, reduce neuronal damage in the CA1 and CA3 areas of the cortex and hippocampus, and delay the cognitive decline caused by aging.

2. physical-mental exercise can effectively prevent and treat cognitive decline in aging mice, and its mechanism may be related to promoting the expression of BDNF and synaptic plasticity-related proteins to regulate synaptic plasticity of neurons.

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THE EFFECT OF CEPHALIC PLEXUS SPINES COMBINED WITH ENRICHED ENVIRONMENT ON THE INTESTINAL FLORA OF RATS WITH AUTISM SPECTRUM DISORDER

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Abstract. In the past decade, the development of science and technology has become more and more rapid, and the research on the intestinal microbiota has become more and more in-depth.The connection between the gut microbiota and the brain has become one of the focuses of scientists.Especially in terms of cognitive and behavioral effects,This manifestation is closely related to the core symptoms of autism.It can be seen that the link between autism and intestinal flora is of great research value.In this experiment, autistic rats will be treated by combining cephalic plexus spines with enriched environment,Improve intestinal flora problems in autistic rats.

Keywords: Acupuncture,Enriched environment,Autism,Intestinal flora,Developmental disorders,Neurological abnormalities

Autism spectrum disorder, also known as autism, is a neurodevelopmental disorder that can lead to serious social behavior problems, mainly manifested as social communication disorders, narrow interests, and repetitive stereotyped behaviors[1].In recent years, the number of children with autism has increased year by year, and autism has developed from a rare disease to a high incidence of developmental disorders in children, and the incidence of autism in the United States is 1/54[2]. Autism is often associated with gastrointestinal disorders (Example, constipation, abdominal pain, diarrhea, vomiting).Autism is more likely to have comorbid gastrointestinal dysfunction than normal children. Autism has a higher incidence of comorbid gastrointestinal symptoms compared to siblings in the autism family who are normally developed. Social disorders and behavioral abnormalities are more obvious in children with autism with gastrointestinal symptoms, which affect children's ability to take care of themselves and integrate into society.The combination of cephalic plexus and rich environment can effectively improve autism symptoms, which may be through metabolism and other pathways to regulate intestinal microbes.

Objective

To explore the effect of cephalic plexus combined with rich environment on the intestinal flora of rats with autism and autism spectrum disorder,It provides a theoretical basis for the clinical use of cephaloacupuncture combined with rich environment to treat autistic patients.

Materials and methods

In this part, an animal model of VPA-induced autism was established, and a sham surgery group, a model group, an acupuncture group, a rehabilitation group and an acupuncture group were established. The research methods of Roullet et al. were used to identify the behavior, development and sociology of the mice, and the successful identification was the autistic rat model.Treatment was started 21 days after birth, and 4 weeks after treatment, HE staining was performed to observe the degree of damage to the hippocampus and intestinal tissues of brain tissue.

(1) Intervention methods

Sham surgery group and model group: postoperative return for observation, no treatment; Only activities with equal conditions are granted.

Acupuncture group: 21 days after birth. Using a 1.0-inch acupuncture needle (0.25×0.13mm), refer to «Experimental Acupuncture» to locate Baihui acupoint and 5mm next to the acupuncture, pierce 10-20mm, quickly twist for 20 seconds, and leave the needle for 60min. 1 time / day, 6 times / week, intervention for 4 weeks.

(2) Data and index detection methods

Growth and development indicators: weight measurement, swimming ability test, tropism skill test

Behavioral indicators: water maze experiment—learning and memory ability; Open field experiments—space exploration capabilities; Three-box experiment—social skills, bead-burying experiment—stereotypical behavior

HE staining was used to observe the degree of damage to the hippocampus and intestinal tissues of brain tissue

Results and discussion

1.In the open field experiment, compared with the sham surgery group, the activity time of the rats in the model group was significantly increased ($p<0.05$), indicating that VPA caused an increase in anxiety behavior in rats.After treatment with cephalic plexus, rich environment, and acacia plexus, and abundant environment, the activity time of rats in the three intervention groups was significantly reduced.There are those who stay at the corner or near the edge of the box, the difference is obvious ($P< 0.05$), in which the head and hole plexus combined with the rich environmental group rat activity time is the most obvious, and the activity

and stopping exploration are present, Compared with the cephalic plexus spine group and the rich environmental group, the difference has statistical significance ($P < 0.05$).It is explained that all three therapies can improve the increase in anxiety caused by VPA, and the combined treatment effect of the two.

2.The combination of cephalic plexus thorns combined with rich environment can improve anxiety, stereotyped behavior, social communication, cognitive learning and memory ability of autistic rats induced by sodium valproate, and the effect is better than that of a single cephaloacupuncture group or a single rich environment group.

3.The combination of cephalic plexus and rich environment can exert brain protection and promote the nervous system development of autistic rats by adjusting the immune response, and improve the intestinal flora of autistic rats

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ELECTROACUPUNCTURE COMBINED WITH EXERCISE PRECONDITIONING IMPROVES MYOCARDIAL ISCHEMIA-REPERFUSION INJURY IN RATS BY MODULATING IRON METABOLISM

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Abstract. Electroacupuncture combined with exercise preconditioning not only improves cardiac function, but also effectively reduces myocardial ischemia-reperfusion injury(MIRI). Iron death is a new type of programmed cell death. Recent studies have shown that iron death is closely related to MIRI, and multiple cellular events such as redox imbalance, lipid peroxidation and endoplasmic reticulum stress are involved in the regulation of iron death. Therefore, the experiments in this paper will explore the relationship between electroacupuncture combined with exercise preconditioning for the treatment of MIRI and iron death in rats.

Keywords: Myocardial ischemia-reperfusion injury; iron death

Due to the formation of unhealthy lifestyles, the prevalence of ischemic heart disease in China is increasing year by year and showing a trend of rejuvenation.But reperfusion injury cannot be avoided by either intervention or thrombolytic therapy. Some studies have shown that the damage caused by reperfusion alone can account for 30%-40% of the total infarct area [1].

Electroacupuncture preconditioning and exercise preconditioning are by far the safer and more effective preconditioning methods, and are more operable in clinical practice. Electroacupuncture combined with exercise preconditioning can improve cardiac function and effectively reduce MIRI.

Iron death is key to the pathogenesis of MIRI and is a pervasive and dynamic form of cell death present in its pathology, which when impeded brings substantial cytoprotection [2]. Whether it is an imbalance in iron metabolism, a disturbance in amino acid metabolism, or an accumulation of lipid peroxides that causes iron death, thereby inducing MIRI.

Objective

To investigate whether electroacupuncture combined with exercise preconditioning can improve MIRI in rats by regulating iron metabolism

Materials and methods

Langendorff Isolated Cardiac Perfusion System; Hepcidin, GPX4, ROS, Tissue Iron Content Kit.

Sixty SD rats were randomly divided into five groups: control group (Con), model group (IR), electroacupuncture group (EA), exercise group (EP), and electroacupuncture combined with exercise group (EA+EP). Electroacupuncture program: take bilateral cardiac points and Shenmen points. The frequency was 2Hz, voltage was 3V, and continuous wave was selected. It was performed once a day for 20 min for three weeks. Exercise program:Motorized running table gradient training for 3 weeks, 6 days of training per week. Parameters:The starting speed was 20 m/min, the time of the first day was 20 min/d, and gradually increased to the exercise time of 60min/d. At the end of the intervention in each group of rats, after the heart was removed,

the aorta of the rats was quickly connected to the Langendorff isolated cardiac perfusion device, which could be switched on and off by the control device to prepare the isolated myocardial ischemia/reperfusion model, and to achieve the ischemia of the whole cardiac tissues.

Results and discussion

The results of HE, TUNEL and TTC staining showed that the intervention group showed different degrees of improvement compared with the IR group, which was more obvious in the EA+EP group. The results of tissue iron content kit showed that the intervention group had different degrees of reduction compared with the IR group, which was more obvious in the EA+EP group.The results of ELISE assay showed that there were different degrees of reduction in the expression of Hepcidin and ROS proteins in the intervention group compared with the IR group, which was more obvious in the EA+EP group, and the expression level of GPX4 was opposite to the above. Immunohistochemistry results of ACSL4 protein expression showed that the intervention group had different degrees of reduction compared with the IR group, which was more obvious in the EA+EP group.Western blot results of FPN-1 protein expression showed that the intervention group had different degrees of increase compared with the IR group, which was more obvious in the EA+EP group.

The three staining results demonstrated the significant mitigating effect of electroacupuncture combined with exercise preconditioning on myocardial ischemia-reperfusion injury, whereas the elevated iron ion content, the elevated expression of Hepcidin and ROS proteins, and the reduced expression of GPX4 and ACSL4 as well as FPN-1 proteins in the IR group illustrated the important role of iron death in the process of myocardial ischemia-reperfusion injury. Finally, the results in the EA+EP group demonstrated the ability of electroacupuncture combined with exercise preconditioning to inhibit iron death.

In conclusion, electroacupuncture combined with exercise preconditioning was able to modulate iron metabolism, amino acid metabolism, and lipid metabolism, the three factors related to the important influencing aspects of iron death, and thus improve myocardial ischemia-reperfusion injury in rats.

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ACUPUNCTURE TREATMENT OF CHRONIC PROSTATITIS

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Abstract. Chronic prostatitis (CP) refers to the prostate gland under some infection factors in micturition not free, abnormal urination, pelvic region, and lumbar di ministry ache is unwell wait for a symptom of disease. Clinically used acupuncture to treat the disease is more and more widely, in this paper, the recent years associated with acupuncture treatment of chronic prostatitis research journals and literatures are summarized and finishing. Analyzed the acupuncture treatment of chronic prostatitis the clinical application situation and research progress of acupuncture treatment has been widely used in clinical; Treatment is diversiform, and acupuncture has no obvious adverse reaction, but there is also insufficient, such as basic research is less, the quality is uneven, should improve study quality, rigorous scientific research and design, multicenter, large sample amount of controlled clinical studies, perfect the acupuncture treatment of the evaluation criteria of the disease, the treatment of the disease.

Keywords: Chronic prostatitis, CP, acupuncture

Chronic prostatitis (also known as Type-III clinical prostatitis), defined as a non-bacteria-related chronic inflammation of the prostate issue, is caused by a variety of factors. Within the patient, chronic prostatitis is often accompanied by elevated prostatic secretions, inflammatory cells, prostate hyperplasias and other symptoms. Chronic prostatitis Type-III can be divided into Type-III a and III b, with the main symptoms for Type-III b being pain and irritation around the perineum, waist and back, lower abdomen, and urinary tract. In chronic disease, symptoms flare repeatedly, leading to a serious impact on patient quality of life. Studies have shown that acupuncture treatment of the disease

has good curative effect, the main treatment has the thermal moxibustion, acupuncture, cupping, warm acupuncture treatment of chronic prostatitis.

Objective

To assess the different types of commonly used in clinical acupuncture treatment of chronic prostatitis method, introduces its advantages and disadvantages and the clinical curative effect, provide reference for clinical treatment.

Materials and methods

Use CNKI and Pubmed database to search with «Chronic prostatitis», «acupuncture» and other keywords.

Results and discussion

1. Moxibustion therapy is put after moxa lit in the human body acupuncture points on smoked burning, make thermal therapy of acupuncture points. Wanchun Wang[1]gland inflammation patients were randomly divided into two groups: control group in western medicine, the treatment group with thermal moxibustion. The results show that the thermal chemical acupoints moxibustion on III type B prostatitis treatment effect is good. Such as Hanshan Liuto 60 patients were randomly divided into two groups, the treatment group to thermal hole with Chinese medicine moxibustion therapy, the control group using conventional acupuncture acupoints, research results in thermal cavity with Chinese medicine acupuncture treatment of chronic prostatitis curative effect is good, and can significantly improve symptoms.

2. The warm acupuncture is a combination of acupuncture and moxibustion, using dredge meridian acupuncture and moxibustion temperature under the effect of flux pulse, play a better therapeutic effect of pain. Xiaolin Song[3]found that warm acupuncture combined top xin capsule CAP curative effect is good, and no side effects, easy. Yinping Xue82 patients were randomly divided into two groups, the treatment group based uplink warm acupuncture to western medicine, take in, close yuan of acupuncture point; the control group, using western medicine and traditional Chinese medicine enema treatment of clarithromycin temperature results in acupuncture and moxibustion can indirectly promote the absorption of western medicine, and through direct improve micro loop to improve the clinical curative effect of patients with chronic prostatitis

In conclusion, the acupuncture treatment of chronic prostatitis methods varied, both in terms of traditional acupuncture and moxibustion, to the present methods of cupping, acupuncture, acupuncture treatment of chronic prostatitis has made great progress.Have the exact clinical curative effect, in alleviating pain and improve the life quality is especially prominent.Related animal experimental study reveals that acupuncture can reduce the levels of proinflammatory factor, and can improve local circulation, reduce urinary dysfunction, promote tissue repair, affect the endocrine, improve comprehensive advantage in the pain threshold

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URINARY METABOLOMICS STUDY OF SANMIAO PILLS ON HYPERURICEMIC RATS IN THE CONTEXT OF MODERNIZATION OF TRADITIONAL CHINESE MEDICINE

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Abstract. This paper describes the effects of Sanmiao Pills (SMW) on hyperuricemia (HUA) rats, analyzing serum uric acid, creatinine, and urea nitrogen levels, and analyzing urinary metabolites in rats using metabolomics. The results showed that SMW significantly improved uric acid levels in HUA rats. Forty-six potential biomarkers were screened in rat plasma. alpha-Linolenic acid metabolism and Pentose and glucuronate interconversions were the key metabolic pathways.

Keywords: HUA; Sanmiao Pills; metabolomics

HUA is a metabolic disease due to a disorder of uric acid metabolism, an imbalance between the amount of uric acid produced by the body and the excretion of uric acid. It is characterized by elevated blood uric acid levels [1]. It is a common and frequent disease in modern society. Therefore, the study of hyperuricemia has received extensive attention. SMW, from «Medical Zhengzhuan», consists of three medicinal herbs, Huangbai, Cangzhu, and Niuji [2], which is commonly used in modern medicine

to treat hyperuricemia. Phellodendron Bark has pharmacological effects such as anti-inflammatory, anti-gout, antioxidant, and immunomodulatory in its clinical action [3]. Atractylodes macrocephala has various pharmacological activities including anti-inflammatory, antiviral and hepatoprotective. Cynoglossum has pharmacological effects including immunomodulation, anti-inflammatory and analgesic, and osteoprotective effects. Metabolomics qualitatively and quantitatively studies small molecule metabolites in biological samples and explores the association between metabolites and research objects, and is considered a powerful tool for integrative research. Therefore, combining TCM with metabolomics provides an effective way for the scientific elaboration of the mechanism of TCM in the treatment of hyperuricemia.

Objective

To study the effect of SMW on the intestinal contents of rats with hyperuricemia (HUA), and to analyze the intestinal contents of rats using metabolomics to provide a basis for the treatment of clinical hyperuricemia.

Materials and methods

SPF grade male SD rats, 7 weeks old, body mass (180±20) g, rats were housed in an environment with temperature controlled at (25±1) °C, humidity controlled at 50%±5%, 12 h/12 h alternating light/dark cycles, 8 rats/group, and 48 SD male rats were randomly divided into 4 groups after 1 week of adaptive feeding on 10% yeast chow, which were the blank (NC), HUA, SMW and COL (colchicine) groups, respectively. group, HUA group, SMW group and COL (colchicine) group. Except for the normal control group, each group was injected intraperitoneally with 3% potassium oxybate at 10 mL/kg twice/day for 1 week. 0.3 mg/kg of colchicine was given by gavage daily in the COL group, and 2.43 g/kg of colchicine was given by gavage daily in the SMW group, and saline was given by gavage in the NC group and the HUA group in the same volume of 10 mL/kg for 7 consecutive d. The rats were modeled and gavaged at the same time in the HUA and blank groups. Rats were modeled and gavaged at the same time. At the end of drug administration, urine serum was collected from rats, and uric acid, creatinine and urea nitrogen levels were measured by automatic biochemistry instrument to detect changes in blood biochemical indexes. Urine was analyzed by UPLC-Q-TOF-MS.

Results and discussion

In this experiment, we successfully established a HUA model by yeast feed combined with gavage of potassium oxonate, and evaluated the therapeutic effect of SMW on HUA rats based on the pharmacodynamic study, and initially explored the mechanism of improvement of HUA by SMW from the point of view of urinary metabolomics. The biochemical results showed that the serum SUA, SCr, and BUN levels were increased in HUA compared with the NC group, with a significant increasing trend ($P<0.01$). Compared with HUA, serum SUA, SCr, and BUN levels in the SMW group were reduced to different ranges with a significant decreasing trend ($P<0.01$, $P<0.05$). Urine metabolomics screened 46 potential biomarkers in rat plasma.The results of the Pathway Analysis module in the MetaboAnalyst5.0 online analysis website showed that, by using $P<0.05$ as the screening condition, we obtained the results of alpha-Linolenic acid metabolism and Pentose and glucuronate interconversions. glucuronate interconversions were the main pathways affecting metabolic disorders in HUA rats, and the related metabolites were Stearidonic acid and beta-D-Glucuronoside.

In summary, SMW can effectively treat HUA, and the mechanism of SMW against HUA may be as follows: by regulating alpha-Linolenic acid metabolism and Pentose and glucuronate interconversions, so as to achieve the lowering of uric acid and inflammation levels in the body, and then to achieve the therapeutic disease Results. This experiment provides some ideas for the mechanism of SMW in the treatment of HUA, and also provides a new direction for the development and application of drugs for the treatment of HUA in the future.

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OPTIMIZATION OF EXTRACTION PROCESS FOR COMPOUND POLYSACCHARIDES FROM LINGGUI ZHUGAN TANG

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Abstract. Linggui Zhugan Decoction was first seen in the Shanghan Lun written by Zhang Zhongjing, a medical sage in the late End of the Han dynasty. It is composed of four medicines: poria cocos, cinnamomum cassia twig, atractylodes macrocephala and liquorice. [1] Clinically, it is often used to treat patients with chronic bronchitis, bronchial asthma, cardiogenic edema, chronic glomerulonephritis and edema, Meniere's disease, neurosis, etc. [2] At present, the extraction and identification standards for traditional Chinese medicine compound formulas are still based on a certain number of effective substances, while the most abundant in this compound formula are various polysaccharides. Therefore, the extraction process of total polysaccharides in the compound formula is explored.

Keywords: Linggui Zhugan Decoction, polysaccharide, Ultrasonic hot water extraction method

Traditional Chinese medicine polysaccharides have good immune activity after oral administration, which has been studied by many domestic researchers at the tissue and organ, cellular, and molecular levels. The main active substance in Poria cocos in the compound is Poria cocos polysaccharides. Poria cocos polysaccharides can be divided into two types: water-soluble polysaccharides and alkali soluble polysaccharides. The content of alkali soluble polysaccharides is relatively high, about 70-90%, and the content of water-soluble polysaccharides is about 2-4%. [3] Atractylodes macrocephala Koidz. is a dried rhizome of Atractylodes macrocephala in the composite family. Modern pharmacological studies have shown that Atractylodes macrocephala has important biological activities and effects, such as antioxidant, hypoglycemic, and anti-tumor effects. Atractylodes macrocephala polysaccharides are macromolecular components .[4-5] Its medicinal parts are dry roots and rhizomes, which were first recorded in the «Shennong Ben Cao Jing». It has been proved that the main Active ingredient of liquorice are triterpenoids, Flavonoid and liquorice polysaccharides, which can enhance the immune function of the body and are commonly used for analgesia, antitussive, anti-inflammatory, anti ulcer, anti-tumor, liver protection, heart protection, anti-cancer and anti AIDS. [6] Cinnamon twig is a dry branch of Cinnamomum cassia in the Lauraceae family. It is warm in nature, sweet in taste, and has functions such as relieving external cold, warming meridians, and aiding Yang and Qi transformation. [7] The main component of Ramulus Cinnamomi is cinnamaldehyde, which is mainly Cinnamic acid.

Objective

Optimize the extraction process of polysaccharides from Compound Linggui Zhugan Tang and explore a more practical and feasible process route.

Materials and methods

By consulting literature and conducting preliminary experiments to explore the ultrasonic hot water extraction method, 10g of crushed and mixed compound was weighed for single factor experimental design, and the central value was selected for response surface optimization experiments. The total sugar content was measured using the phenol sulfuric acid method. Through single factor experiments, it was found that the effect was better when the ultrasonic power was 160W, the material liquid ratio was 1:20, the reflux extraction temperature was 80 °C, and each extraction time was 2 hours. The optimal process obtained using response surface methodology is ultrasound power of 160W, solid-liquid ratio of 1:25, reflux extraction temperature of 80 °C, extraction time of 2.5h. After optimization of this extraction process, the total sugar content in the compound can reach 47.47%.

Results and discussion

In recent years, polysaccharides have attracted more and more attention from researchers. As an indispensable component in drugs, this experiment extracted polysaccharides from compound formulas, filling the scene where a single polysaccharide has incomplete therapeutic effects on diseases. This experiment only preliminarily optimized the extraction process of total polysaccharides in the compound, and in subsequent experiments, protein removal and decolorization will be carried out to purify the total polysaccharides, further exploring the physicochemical properties and pharmacodynamics of the compound polysaccharides.

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EXPLORING THE THERAPEUTIC EFFECTS OF TOTAL SAPONINS FROM RHIZOMA DIOSCOREA NIPPONICAE ON GOUTY ARTHRITIS RATS BASED ON NETS

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Abstract. In this paper, the therapeutic effect of Total saponins from Rhizoma Dioscorea Nipponicae (TSRDN) on GA rats was revealed based on NETs. HE staining was used for histopathological comparison of synovial joints, and ELISA technique was used to detect the expression of serum TNF-α, IL-1β, NE, MPO, PAD4 levels, and mRNA transcription of NE, MPO and PAD4 in synovial tissues were detected by RT-qPCR technique. The results showed that TSRDN reduced the inflammatory cell infiltration, decreased the expression of pro-inflammatory factors, down-regulated the expression of PAD4, and inhibited the release of MPO and NE in the synovial tissues of GA rats, and the mechanism of action of TSRDN may be related to the inhibition of NETs production.

Keywords: total saponins from Rhizoma Dioscorea Nipponicae; GA; NETs

GA is an inflammatory lesion caused by MSU and deposited into the joint capsule, synovium and other tissues. The disease is showing a high prevalence in our country, Russia and the world due to factors such as overconsumption of foods with high purine content and poor dietary habits such as alcohol consumption, so it is significant to study innovative diagnostic and therapeutic methods for GA. Andrographis paniculata is the dried rhizome of Dioscorea nipponica Makino, which has the efficacy of dispelling wind and removing dampness, soothing tendons and collaterals, activating blood circulation and relieving pain. The previous research of our group showed that TSRDN has strong uric acid-lowering and anti-inflammatory activities.NETs are mesh-like structures composed of DNA, MPO, NE, histones and so on. Studies have shown that aggregated NETs may be associated with gouty stone formation.NETs play an important role in the initiation and progression of GA, so targeting the regulation of NETs is a novel strategy for the treatment of GA.

Objective

This study attempted to reveal the anti-inflammatory molecular mechanism of TSRDN in GA rats based on NETs, in order to provide new ideas and new methods for the prevention and treatment of gout by traditional Chinese medicines, and to provide a theoretical basis for the future study of pathological mechanisms and clinically targeted therapy.

Materials and methods

Forty wistar male rats (SPF, 7 weeks old, weighing 180±20 g) were used, and after one week of acclimatization, they were randomly divided into blank group, GA group, TSRDN group and colchicine group.The TSRDN group was given 160 mg/(kg-d), and the colchicine group was given 0.3 mg/(kg-d), and the drug was administered for one week continuously. Modeling was performed with reference to the classical Coderre method. On the 3rd day of administration, a 25 mg/kg MSU suspension was used and 0.2 mL of it was injected into the knee joint cavity of rats in each group except

the blank group, resulting in a GA rat model. One hour after the last administration, anesthetized with isobarbital, blood was taken from the abdominal aorta and serum was obtained for ELISA analysis. Synovial tissue was isolated and removed with a scalpel for HE staining and RT-qPCR detection. The effects and mechanisms of TSRDN on GA rat model were investigated.

Results and Discussion

In this experiment, we successfully established a GA model by the classical Coderre method, and evaluated the therapeutic effect of TSRDN on GA rats from HE, ELISA, and RT-qPCR techniques, and preliminarily explored the role of TSRDN in improving GA and its mechanism based on NETs. The results of HE showed that inflammatory cell infiltration was obvious in the GA group, compared with the blank group . It indicated that modeling was successful; compared with the model group, TSRDN group and inflammatory cell infiltration were reduced. It indicated that TSRDN was able to attenuate the inflammatory response in MSU-induced GA rats.

The ELISA results showed that the expression of TNF-α and IL-1β in the GA group showed a significant upward trend compared with that of the blank group (P<0.01), and the expression of pro-inflammatory factors was significantly reduced in the TSRDN group compared with that of the GA group (P<0.05 and P<0.01, respectively), which reflected the reduction of pro-inflammatory factors expression in the GA rats by the TSRDN, and possessed The results of RT-qPCR and ELISA showed that compared with the blank group, the expression of NE, MPO and PAD4 in the GA group showed a significant increase (P<0.01), and compared with the GA group, the expression of TSRDN in the TSRDN group showed a significant decrease (P<0.01), which indicated that TSRDN down-regulated the expression of PAD4 in the GA rats, and inhibited the release of MPO and NE.

In conclusion, TSRDN can effectively treat GA, and its mechanism may be that TSRDN can reduce the inflammatory cell infiltration of synovial tissue, reduce the expression of pro-inflammatory factors, down-regulate the expression of PAD4, inhibit the release of MPO and NE, and inhibit the production of NETs. This experiment provides a new strategy for the treatment of GA based on NETs, and provides an innovative approach of anti-inflammatory molecular mechanism for the prevention and treatment of gout by traditional Chinese medicine. Its related research needs to be further deepened.

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THERAPEUTIC EFFECTS OF XNLT ON ISO-INDUCED MYOCARDIAL INFARCTION IN RATS

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Abstract. This paper discusses the treatment of ISO-induced myocardial infarction in rats with XNLT (Xinnaoluotai capsule)disease and the mode of action of the drug, which exerts a therapeutic effect on myocardial infarction mainly in terms of antioxidant and inflammation as well as apoptosis promotion of the drug.The treatment of acute myocardial infarction does not simply address the oxygen supply to myocardial tissues, because acute myocardial infarction leads to a variety of processes including oxidative stress, apoptosis, and inflammatory responses, all of which play an important role in the development of myocardial infarction [1]. This paper analyses the inflammation and apoptosis during the treatment of myocardial infarction with cardiovertebral capsules.

Keywords: XNLT, myocardial infarction, inflammation, apoptosis,TCM

Myocardial infarction is one of the major contributors to death in patients with coronary heart disease worldwide [2]. It results from an imbalance between supply and demand in the myocardium induced by a number of reasons such as blockage of blood vessels or cardiac decompensation. This causes damage to the myocardial tissue and in severe cases, necrosis[3].XNLT Capsules are composed of Astragalus, Panax notoginseng, Bingshi, Ginkgo biloba, leeches, and Dilong, which are effective in benefiting qi, activating blood circulation, resolving blood stasis, and clearing collaterals.

Objective

The occurrence and evolution of XNLT the adjustment and improvement of clinical medication.

Materials and methods

This study was carried out by the Institute of Traditional Chinese Medicine, Heilongjiang University of Traditional Chinese Medicine, a total of 120 rats, half male and half female, randomly assigned to the same sex, the first group was gavaged with pure water daily for 14 consecutive days as a normal control group without any other treatments, the second, third and fourth groups were gavaged with aqueous solution of cardiac luotide (0.0162g/ml, 0.0324g/ml, 0.0648g/ml) daily, respectively , according to the dosage of 1ml/100g for 14 consecutive days, the fifth group served as the positive drug group, using the listed drug Naoxintong capsule as the positive control drug, treated as above. The sixth group served as a model group and was treated with isoprenaline only but no drug administration.

Results and discussion

In terms of changes in the levels of CK, CKMB and LDH, Cardiolipin capsules showed significant improvement, in which CK and LDH showed significant differences compared to the model group (P<0.01), CKMB showed differences compared to the model group (P<0.05), and serum contained significant differences in TNF-α, IL-1β, and IL-6 (P<0.01), and in the WB assay, apaf1, akt, caspase-3, caspase-9, PI3k, p-PI3k, and p-PI3k. apaf1, akt, caspase-3, caspase-9, PI3k, p-PI3k were significantly different (P<0.01) compared to the model group. From the experimental data, the performance of XNLT in the high, low and group showed dose-dependence, and the efficacy was gradually strengthened with the increase of drug concentration.

XNLT has a better therapeutic effect on ISO-induced myocardial infarction, anti-inflammatory, anti-apoptosis is its important mode of action, for myocardial infarction-induced damage to the organism has a better effect on the regression.

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RESEARCH PROGRESS ON THE ROLE OF INTESTINAL FLORA IN THE TREATMENT OF PRIMARY LIVER CANCER

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Abstract. Liver cancer has a very high incidence and mortality, is an important factor threatening human life and health, making it one of the third leading causes of death. Studies have found that intestinal flora maintains the dynamic balance of the internal environment in the physiological state, and has a promoting effect on the body in the pathological state, and helps the body to restore normal life activities by means of the distribution of intestinal flora. Therefore, it is still necessary to explore more effective ways to treat primary liver cancer with the help of intestinal flora.

Keywords: intestinal flora, Primary liver cancer, research progress

Intestinal flora exists widely in the human gut, and more and more studies have also proved that intestinal flora can participate in the occurrence and development of liver cancer through the interactive circulation of the entero-liver axis. In the development and progression of liver cancer, no matter what kind of therapy can control the body through the self-regulation of intestinal flora to play a positive role in the treatment of liver cancer.

Liver cancer can be divided into two types of primary liver cancer and secondary liver cancer, of which primary liver cancer includes hepatocellular

carcinoma, intrahepatic cholangiocarcinoma and mixed type liver cancer, and among them, hepatocellular carcinoma accounts for about 90% of primary liver cancer, primary liver cancer is one of the most common malignant tumors worldwide.

Objective

Hepatitis and cirrhosis are the main forms of chronic liver disease, and hepatitis will develop into liver cancer over time, and the pathological products produced by the imbalance of intestinal flora will cause a series of inflammation in the body, leading to hepatitis, and then cirrhosis, and finally liver cancer.

Cirrhosis is usually developed from hepatitis, and the ultimate outcome is to lead to liver cancer if treatment is not timely. Liver fibrosis is the long-term damage to the liver, such as unclean diet, irregular work and rest, or toxic and side effects of drugs, and eventually become the pathological result of the development of hepatitis.

Materials and methods

Due to the characteristics of occult and early detection of liver cancer, most patients with liver cancer are already in the advanced stage when they are discovered, and whether radiotherapy, chemotherapy or conservative treatment will damage the body's healthy qi. Therefore, we can start from the perspective of intestinal flora, and take the changes of intestinal flora as markers to assist the diagnosis of liver cancer in time to detect and diagnose liver cancer, so as to achieve timely detection and early treatment.

The progression of liver cancer is a dynamic process, and studies have found that primary liver cancer can be treated by correcting the distribution of intestinal flora and by correcting the colony through various therapies.

Results and discussion

There is a certain correlation between intestinal flora and primary liver cancer. The hepato-intestinal axis is an important interaction pathway between liver and intestine, and the therapeutic effect of primary liver cancer can be achieved by regulating intestinal flora. At present, the mechanism relationship between intestinal flora and primary liver cancer is not clear, and it provides new ideas and strategies for the prevention and treatment of primary liver cancer.

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EFFECT OF ACUPOINT EMBEDDING OF «ABDOMINAL FOUR NEEDLES» ON PANCREATIC SUGAR METABOLISM IN RATS WITH SIMPLE OBESITY

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Abstract. Obesity has become a major social and medical problem worldwide, which not only affects the external shape of patients, but also seriously affects the daily life of patients, and even induces diabetes, hyperlipidemia, cardiovascular and cerebrovascular diseases and other serious diseases that harm human health. The present study was conducted to study pancreatic glucose metabolism in rats with simple obesity by acupoint catgut embedding therapy combined with modern medicine and traditional Chinese medicine. To explore the mechanism of acupoint catch-embedding in the treatment of simple obesity, in order to provide a reliable experimental basis for clinical treatment of simple obesity.

Keywords: Abdominal four needles; Acupoint embedding; Simple obesity

Obesity is a chronic metabolic disease caused by a variety of factors, which is characterized by an increase in the volume and number of fat cells in the body, resulting in an abnormal increase in the percentage of body fat to body mass, and excessive deposit of fat in some parts[1]. Obesity is

divided into simple obesity and secondary obesity, simple obesity is the most common type of obesity, accounting for about 95% of obese people[2]. Clinically, there are a variety of treatments for obesity, including diet therapy, exercise therapy, drug therapy, surgical therapy, etc. However, due to the poor self-control ability of patients, the cost of drug and surgical treatment is more expensive, and has a greater risk, easy to rebound. According to relevant studies, acupoint catgut embedding therapy is a common treatment for simple obesity, with advantages such as high safety, no adverse reactions, easy rebound and simple operation [3]. Many doctors use acupoint catgut embedding to treat simple obesity, but there are few studies on the mechanism of acupoint catgut embedding. By comparing and observing the changes of body weight, abdominal circumference and Lee's index, fasting blood glucose, and wet weight of pancreatic tissue in each group before and after treatment, this study explored the timeliness and possible mechanism of abdominal four-acupuncture acupoint catch-threading in the treatment of simple obesity, providing a new theoretical basis for clinical application.

Objective

By observing the effect of acupoint catgut embedding with «abdominal four needles» on pancreatic sugar metabolism in rats with simple obesity, the timeliness and possible mechanism of acupoint catgut embedding with abdominal four needles in the treatment of simple obesity were discussed, providing a new theoretical basis for clinical application.

Materials and methods

Eighty healthy male SD rats aged 1 month with body weight of 52±9g were selected. After 7 days of adaptive feeding with ordinary standard diet, the rats were divided into blank group, model group, acupuncture group and buried wire group according to numerical random method. After successful modeling, the blank group and model group were only captured under the same conditions, and no therapeutic intervention was used. Acupuncture group: acupuncture Zhongwan, Guanyuan, bilateral Tianshu, left the needle for 20min, once a day, 6 times a week, a total of 4 weeks. Embedding group: Acupuncture group was treated once a week for a total of 4 weeks. Body weight, abdominal circumference and Lee's index were measured during treatment. After treatment, fasting blood glucose (FPG) and fasting insulin (FINS) were measured, insulin resistance (IR) was calculated, and pancreatic tissue wet weight was measured.

Results and discussion

After treatment, compared with blank group, body weight, Lee's index, pancreas wet weight, FPG, FINS, IR of model group were compared ($P < 0.05$). Compared with model group, body weight, Lee's index, pancreas wet weight, FPG, FINS, IR of rats in acupuncture group and embedding group ($P < 0.05$); Compared with the acupuncture group, the body weight, pancreas wet weight, FPG, FINS and IR levels of rats in the embedding group were significantly decreased ($P \leq 0.05$).

Conclusion

«Abdominal four needles» acupoint embedding and acupuncture can reduce the body weight of rats by regulating the level of pancreatic glucose metabolism and reducing the levels of FPG, FINS and IR.

The above fully shows that «abdominal four needles» acupoint embedding has a significant effect on the regulation of pancreatic sugar metabolism and the reduction of body mass in rats with simple obesity.

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RESEARCH PROGRESS OF HUANGLIAN WENDAN DECOCTION IN THE PREVENTION AND TREATMENT OF METABOLIC SYNDROME BASED ON AUTOPHAGY

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Abstract. Metabolic syndrome (MS), a chronic, noninfectious syndrome clinically characterized by a group of vascular risk factors including insulin resistance, hypertension, abdominal obesity, impaired glucose metabolism, and dyslipidemia, has become a truly global problem. Autophagy is a dynamic process necessary for the body to maintain energy metabolism. The etiologic mechanism of multiple sclerosis is closely related to the imbalance of energy metabolism, which is strictly regulated by autophagy, and defective autophagy balance in the body is closely related to metabolic abnormalities. Thus, autophagy plays an important role in the pathogenesis of MS. Therefore, this paper will review the prevention and treatment of MS based on the cellular autophagy pathway from the active ingredients of Huanglian Wendan Decoction (HWD) single-flavored medicines and formulas, so as to provide a scientific basis for the advancement of experimental research and clinical treatment of multiple sclerosis.

Keywords: metabolic syndrome, autophagy, insulin resistance, Huanglian Wendan Decoction, regulatory mechanism, research progress

The WHO defines metabolic syndrome (MS) as a pathological condition characterized by abdominal obesity, insulin resistance, hypertension and hyperlipidemia. Metabolic syndrome has now become a truly global problem. Autophagy, an overall degradation process that non-selectively transports cytoplasmic components (e.g., nucleic acids, proteins, and organelles) to the lysosome, is a dynamic process necessary for the maintenance of energy metabolism.The etiologic mechanism of MS is closely related to the imbalance of energy metabolism due to dysregulation of autophagy. Therefore, autophagy plays an important role in the pathogenesis of MS.

Currently, the clinical treatment of MS is limited to individual or combined drug therapy for different pathologic features, such as anti-obesity drugs and statins. Traditional Chinese medicine (TCM) has been actively discussed and explored on this basis, and most scholars believe that Huanglian wendan soup (HWD) has the characteristics of synergistic regulation of multiple pathways, targets, and mechanisms in the treatment of MS, which can clear heat and dry dampness, regulate qi and resolve phlegm, harmonize the stomach and benefit the cholestasis, and has significant pharmacological effects such as lipid-lowering, sugar-lowering, and anti-inflammation. Therefore, this paper summarizes the research progress of cellular autophagy-based HWD for the prevention and treatment of multiple sclerosis.

Objective

To further explore the new targets and new ways of HWD to prevent and treat MS on the basis of the currently known autophagy pathway, so as to provide a scientific basis for advancing the experimental research and clinical treatment of metabolic syndrome.

Materials and methods

Available data suggest that HWD can prevent and treat MS through pharmacological effects such as blood pressure regulation, lipid-lowering, hypoglycemic, anti-inflammatory, and anti-oxidative stress. Therefore,this article focuses on the role of HWD in the prevention and treatment of MS by regulating autophagy, thereby improving insulin resistance (IR), lipid damage, inflammatory response, oxidative stress response and autonomic dysfunction.

Results and discussion

The imbalance of energy metabolism caused by autophagy dysregulation is closely related to the etiological mechanism of MS. The whole formula of HWD and its main chemically active ingredients can protect the relevant cells from damage through autophagy-related pathways, play the roles of lowering blood pressure, regulating blood glucose and dyslipidemia, etc., which can coordinately regulate and intervene in the occurrence and development of MS through multiple pathways, multiple targets, and multiple mechanisms.

However, the current level of research is limited to the prevention and treatment of MS by regulating the autophagy pathway of the main single herbs in Huanglian (e.g., Rhizoma Coptidis), and it is not clear whether the other single herbs in the formula are able to participate in the development of MS through autophagy mechanisms, or whether their drug concentration affects the preventive and therapeutic effects on MS.

In conclusion, we need to further explore the new targets and pathways of HWD against MS on the basis of the currently known autophagic pathways, so as to provide a scientific basis for advancing the experimental research and clinical treatment of MS.

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EFFECTS OF ELECTRO-NEEDING DU20 AND EX-B8 ON ETHOLOGY AND INTESTINAL FLORA OF EPILEPTIC RATS

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Abstract. To observe the effect of electro-needling Baihui (DU20) and Yaoqi (EX-B8) on ethology and intestinal flora of rats with epilepsy induced by pentetrazone (PTZ), and to explore the mechanism of electro-acupuncture in the treatment of epilepsy. Methods : 24 SD rats of SPF grade were randomly divided into the blank group, the model group and the electro-acupuncture group, with 8 rats in each group. Epilepsy model was prepared by intraperitoneal injection of PTZ. The electro-acupuncture group was treated with electro-needling DU20 and EX-B8 for 14 days after successful modeling. The rats in the blank group and the model group were fixed for 10 min per day. After the last treatment, the results of watermaze test were recorded, changes of intestinal flora in fecal samples were analyzed by 16srDNA sequencing. Results : The latency of generalized tonic-clonic seizure (GTCS) and minimal clonic seizure (MCS) was significantly longer in the electro -acupuncture group than that in the model group. Compared to the blank group, a significant reduction in the number of platform crossings was shown during the Morris water maze test (P<0.05). In terms of the 16srDNA sequencing results, compared to those in the blank group, there was a higher abundance of verruca micro-bacteria and a lower abundance of spirochetes in the model group (P<0.05) ; compared to those in the model group, the abundance of verruca micro-bacteria and bacteroides significantly decreased in the electro-acupuncture group (P<0,05). Conclusion: Electro-acupuncture can prolong the latency of epileptic seizure in rats, suggesting that Electro-acupuncture DU20 and EX-B8 have an anti-epileptic effect. The mechanism may be related to the regulation and recovery of intestinal flora structure.

Keywords: Epilepsy, Electro-acupuncture, Intestinal flora, Cognitive function, Microflora abundance

Epilepsy is a chronic brain disease characterized by a persistent predisposition to epilepsy. Acupuncture has a long history in the treatment of epilepsy in traditional Chinese medicine, and has accumulated rich clinical experience for thousands of years. As the main treatment plan, acupuncture has a definite effect. However, due to the various causes of epilepsy, complex pathogenesis, diverse clinical manifestations and easy induction by adverse factors, the clinical theoretical basis of acupuncture for the treatment of epilepsy has not been fully explored.

Objective

In this study, by observing the changes of the behavior and intestinal flora abundance of PTZ induced epileptic rats induced by electroacupuncture «Baihui» and «Yaoqi», the diagnosis of epilepsy and the mechanism of anti-epileptic action of electroacupuncture were discussed based on intestinal flora.

Materials and methods

A total of 24 SPF-grade female SD rats, aged 8 weeks and weighing 200-250g, were provided by Animal Laboratory Center of Heilongjiang University of Traditional Chinese Medicine, license number: SYXK(Black) 2020-004. After 1 week of adaptive feeding, the rats were numbered and weighed, and 8 of them were selected as blank group (group N) using a computer-generated random number table, and the remaining 16 were evenly divided into model group (group M) and electroacupuncture group (group E) after the successful ignition model of pentatetrazol.

Results and discussion

The rats in the blank group (group N) were

in good mental condition, responsive, shiny hair and normal diet. Compared with the empty white group, the rats in the model group (group M) showed slow response, dark yellow hair, reduced food intake, slow growth of body mass, and easy to be irritated. Compared with the model group, electroacupuncture group (group E) showed more flexible response, more hair, more food intake, less number of major seizures and shorter duration.

Compared with group N, the escape latency of rats in group M was significantly prolonged, and the number of crossing the platform was significantly reduced, with statistical significance ($P < 0.05$). Compared with group M, the latency of escape and the number of crossing the platform in group E had statistical significance ($P < 0.05$), the latency of escape was significantly shorter than that in group M, and the number of crossing the platform was increased.

By observing the changes of behavior and intestinal flora structure abundance in rats, the experiment showed that electroacupuncture «Baihui» and «Yaoqi» had better anti-epileptic effect on epileptic model rats, and its mechanism may be related to the regulation and restoration of intestinal flora structure.

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EFFECT OF FLOATING NEEDLE COMBINED WITH REPERFUSION ON RECOVERY AND COMPLICATIONS AFTER RETINAL LASER PHOTOCOAGULATION

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Abstract. This article observed the effect of floating needle combined with reperfusion therapy on the recovery of patients with proliferative diabetic retinopathy (PDR) after retinal laser photocoagulation, and analyzed the effectiveness and safety of this combined method by comparing and analyzing the BCVA (Best Corrected Visual Acuity) scores of PDR patients before and after the treatment and the occurrence of postoperative complications. It was found that this combined method can effectively improve the recovery of visual function and reduce the incidence of complications, and the total clinical effectiveness rate of this combined therapy is significantly higher than that of conventional treatment ($P < 0.05$).

Keywords: Floating needle, Reperfusion therapy, Diabetic retinopathy, Retinal laser photocoagulation, Clinical observation

Retinal laser photocoagulation is a widely utilized and effective treatment for ocular fundus disease. However, it can cause certain destructiveness. Proliferative diabetic retinopathy (PDR) is a prevalent complication of diabetes and if left untreated, it can lead to visual impairment, retinal detachment and even blindness due to pathological changes in nerve and vascular microcirculation in the fundus. Currently, retinal laser photocoagulation is the primary treatment for PDR. However, PDR patients often experience numerous complications after retinal laser photocoagulation, which not only hinder their recovery, but also diminish their daily living ability.

Floating needle is a type of modern acupuncture therapy that achieves therapeutic effects by scanning the widely distributed loose connective tissue layer throughout the body, which can play a role in relieving the pain and improve the therapeutic effect of microcirculation disorders. Reperfusion activity refers to the process in which the patient's active or passive activity maintains the affected muscle in a contracted or diastolic state, and the practitioner applies an impedance action in the opposite direction with the same force. The combination of the two therapies has been shown to fully stretch the local connective tissue and accelerate the operation and metabolism of tissue fluid and blood.

Objective

To observe the visual function recovery and complications of PDR patients after retinal laser photocoagulation with floating needle combined with reperfusion therapy, so as to evaluate the effectiveness and safety of this combined therapy, with a view to providing an effective supplement for the postoperative rehabilitation of PDR.

Materials and methods

Fifty-one patients (67 eyes) who met the diagnostic criteria for PDR and attended the

outpatient department of the First Hospital Affiliated to Heilongjiang University of Chinese Medicine between September 2020 and December 2021 were randomly divided into a control group (25 cases, 32 eyes) and a treatment group (26 cases, 35 eyes). The control group received routine postoperative care, with the affected eyes treated with tobramycin and dexamethasone eye drops for 7 days. The treatment group was treated with floating needle combined with reperfusion on the basis of the conventional treatment program in the control group. The treatment was carried out once a day with 2-day interval, 8 times as one course of treatment, for a total of 24 days of treatment. The observation indicators were the BCVA value after LogMAR conversion, and the occurrence of complications in the postoperative period.

Results and discussion

1. The results of the comparison of the complication occurrence between the treatment group and the control group were as follows: eye pain (19.2% vs. 36.0%), conjunctival congestion (3.8% vs. 8.0%), headache (7.7% vs. 16.0%), and other symptoms (0.0% vs. 4.0%), and in terms of the total incidence of complication rate, the treatment group was significantly lower than the control group (30.8% vs. 64.0%) ($P < 0.05$).

2. The results of the comparison of the efficacy of the treatment group and the control group were as follows: the treatment group was significantly higher than the control group in the total effective efficiency (96.1% vs. 76.0%), which is a significant improvement in clinical effectiveness ($P < 0.05$), and the difference was statistically significant.

3. The results of the comparison of visual function between the treatment group and the control group before and after treatment were as follows: after treatment, the BCVA score of the treatment group (0.33±0.06) was significantly lower than that before treatment (0.53±0.19) ($P < 0.05$), while the BCVA score of the control group (0.43±0.13) was significantly lower than that before treatment (0.58±0.11) ($P < 0.05$). And the improvement of BCVA score in the treatment group was significantly better than that in the control group, and the difference was statistically significant ($P < 0.05$).

Therefore, the use of floating needle with reperfusion therapy on the basis of routine postoperative care can significantly improve the recovery of visual function after retinal laser photocoagulation in patients with PDR, reduce the occurrence of complications, and the efficacy of the treatment group was significantly better than that of the control group, which is a safe and effective means of postoperative rehabilitation, and it is worthwhile to be promoted and applied in the clinic.

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RESEARCH PROGRESS ON TRADITIONAL CHINESE MEDICINE INTERVENTION IN THE TUMOR IMMUNE MICROENVIRONMENT OF BREAST CANCER

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Abstract. Breast cancer is one of the most common malignant tumors in women, and the tumor immune microenvironment plays an important role in its development and treatment. The tumor microenvironment consists of proliferating tumor cells and various non-cancer cells present in the tumor. The intervention of traditional Chinese medicine (TCM) plays a significant role in regulating immune function and improving the tumor immune microenvironment. This article provides an overview of the research progress of TCM in the intervention of the tumor immune microenvironment in breast cancer.

Keywords: breast cancer,TCM,immune microenvironment, immune therapy, tonifying and solidifying

Breast cancer is one of the most common malignancies in women, and the tumor immune microenvironment plays a crucial role in its development and treatment. The occurrence of breast cancer is closely associated with the tumor microenvironment, which has a significant impact on tumor initiation, invasion, and metastasis. However, the effectiveness of activating the immune system and enhancing tumor immune response may be limited, mainly due to the suppressive influences of the tumor immune microenvironment.

TCM plays an important role in intervening and

regulating the tumor immune microenvironment by modulating immune function and improving the tumor immune microenvironment. This article reviews the research progress of TCM in the intervention of the tumor immune microenvironment in breast cancer.

1.1 CAFs

Tumor-associated fibroblasts (CAFs) are the most abundant stromal cells in the breast cancer tumor microenvironment. CAFs promote tumor occurrence and progression through various mechanisms, secreting multiple factors and matrix metalloproteinases (MMPs), inducing stem cell behavior, and epigenetic changes.

1.2 TILs

Tumor-infiltrating lymphocytes (TILs) mainly consist of T cells, B cells, and NK cells, and they are a type of cells that regulate immune responses in the tumor microenvironment. The mechanisms of action of TILs mainly include their cytotoxicity, death receptor-mediated apoptosis, perforin/granzyme B-mediated cell apoptosis, and cell lysis and apoptosis mediated by the secretion of inflammatory cytokines.

1.3 TAMs

TAMs are the major inflammatory cells within TME and can be divided into M1 and M2 types. M1 TAMs recruit and activate natural killer cells and dendritic cells through the expression of chemokines. Additionally, M1 TAMs induce T cell activation by secreting chemokines , exhibiting anti-tumor effects. M2 TAMs promote angiogenesis and the expression of signals for extracellular matrix remodeling, exerting protumoral effects.

1.4 MDSCs

Myeloid-derived suppressor cells (MDSCs) of bone marrow origin are a heterogeneous population of immature myeloid cells that play a role in suppressing both innate and adaptive immunity. Extensive research has shown that in the tumor microenvironment of breast cancer, MDSCs can suppress T cells, RNS, and NO. They can also inhibit T cell proliferation by downregulating the expression of CD3/CD28. MDSCs also express IL-6 and soluble IL-6Rα, which promote invasion and metastasis in breast cancer.

Results and discussion

The occurrence of breast cancer is primarily attributed to weakened organs, deficiency in vital energy, which can be addressed by enhancing the body's immune function and improving the tumor microenvironment to exert anti-tumor effects.In summary, TCM holds vast potential in the intervention of the immune microenvironment in breast cancer. TCM can have a positive impact on the efficacy of tumor immunotherapy. However, current research in this area is relatively limited, and further clinical and basic research is needed to validate and enhance the safety and effectiveness of TCM interventions in the immune microenvironment of breast cancer. To achieve this, it is necessary to fully capitalize on the advantages of TCM, conduct in-depth research into the mechanisms of TCM in the context of breast cancer tumor microenvironment, and integrate it with modern medical treatments to improve its practical application. This will provide breast cancer patients with more treatment options and effective immunotherapeutic strategies.

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PROFESSOR CONGHUIFANG'S EXPERIENCE IN TREATING VULVAR LICHEN SCLEROSUS WITH ACUPUNCTURE THERAPY

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Abstract. This paper introduces the prescription analysis results of acupuncture treatment of vulvar lichen sclerosus by Professor conghuifang, a famous traditional Chinese medicine. The TCM inheritance computing platform (3.0) was used to analyze Professor Cong's effective prescriptions for the treatment of this disease and summarize the treatment experience. According to the analysis, Professor conghuifang often treated the disease by surrounding the Ashi point of vulva and acupuncture Sanyinjiao point, and according to the symptoms, she added or subtracted according to the symptoms.

Keywords: Professor Conghuifang, vulvar lichen sclerosus, acupuncture, ashi point, sanyinjiao

Vulvar lichen sclerosus has the potential to cause significant and permanent scarring and deformity of the vulvar structure.If untreated, it is associated with a 2%-6% lifetime risk of malignant squamous neoplasia of the vulva[1]. Common clinical treatment methods include corticosteroid therapy, physical therapy. But they have recurrent drawbacks[2]. Professor conghuifang, a famous doctor in Heilongjiang Province, has been engaged in the clinical work of traditional Chinese medicine gynecology for more than 30 years, and has rich experience in the treatment of vulvar lichen sclerosus. Through mining Professor Cong's treatment experience, it was found that the method of encircling acupuncture at Ashi acupoint of vulva can significantly reduce the patient's condition, which has clinical application value and popularization value.

Objective

Using data mining technology to analyze the clinical data of Professor Conghuifang in treating this disease, summarize the treatment rules, and extract effective prescriptions.

Materials and methods

This study collected 102 prescriptions of Professor Conghuifang for the treatment of vulvar lichen sclerosus of liver and kidney yin deficiency type. The database was established in Excel table, and the names of acupoints were standardized according to the Pharmacopoeia of the People's Republic of China[3]. Upload the data to the TCM inheritance computing platform (version 3.0), and analyze the prescriptions of the collected cases, application frequency and association rules.

Results and Discussion

Analysis results of acupoint frequency:A total of 62 acupoints were involved in the collection of 102 prescriptions, including four high-frequency acupoints, namely Yin Ashi, Sanyinjiao, Shenshu, and Taixi. Analysis results of association rules: Through data analysis, high-frequency acupoint combinations can be extracted, namely «Ashi point of the external genitalia, Sanyinjiao», «Ashi point of the external genitalia, Sanyinjiao, and Taixi»

Ashi acupoint is mainly used to directly attack the disease site and quickly mobilize local blood and Qi; Sanyinjiao, supplemented by regulating qi, blood and Yin and Yang of the whole body; Shenshu and Taixi nourish and tonify the kidney and fundamentally adjust the function of the kidney. The three acupoints can effectively improve the clinical symptoms by giving consideration to both the local and the whole, and treating both the symptoms and the symptoms together. Ashi acupoint is not only the reaction point of the disease, but also the site of the surgery, often located in a place where qi and blood are blocked. Acupuncture at Ashi acupoint can stimulate meridian qi, stimulate the circulation of qi and blood, promote blood circulation, remove blood stasis, and relieve pain. Encircling the Ashi acupoint of vulva is Professor Conghuifang's empirical therapy for the treatment of vulvar lichen sclerosus. Compared with ordinary acupuncture, encircling the Ashi acupoint has the characteristics of shallow stimulation and dense distribution. This method is not limited to a specific acupoint, avoiding the disadvantage of weak stimulation caused by the deviation in the process of ordinary acupuncture point selection. This therapy can directly attack the disease, stimulate local meridians, dredge local Qi and blood, promote local blood circulation, communicate the relationship between meridians, prevent the spread of disease, and strengthen health and eliminate evil. In addition, Sanyinjiao is the place where the three yin meridians meet. It is connected to the vulva through the meridians. Acupuncture Sanyinjiao can regulate the functions of the liver, spleen and kidney, and unblock the blood and Qi of the whole body. The overall treatment is mainly based on the combination of surrounding needling at Ashi point of vulva and acupuncture at Sanyinjiao point, taking into account the local and the whole. The treatment effect is remarkable.

Professor Cong Huifang mainly treats vulvar lichen sclerosus by surrounding needling the Ashi point of the vulva and acupuncture at Sanyinjiao. In

addition, according to clinical symptoms, it can be adjusted accordingly.

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TREATMENT OF 32 CASES OF FREQUENT EPISODIC TENSION-TYPE HEADACHE WITH QUINTUPLE PUNCTURE AT SCALP POINTS

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Abstract. In this study, 32 patients with frequent episodic tension-type headache were treated with quintuplet puncture at Ashi, Fengchi and Shuaigu points for a total of 4 weeks. The visual analogue scale(VAS) scores, headache frequency, duration and World Health Organization Quality of Life-BREF(WHOQOL-BREF) scores of patients were observed before and after treatment. The results showed that the severity, duration and frequency of headache decreased after treatment. The score of WHOQOL-BREF increased. It is considered that this method can relieve headache symptoms and improve quality of life, and has certain clinical application value.

Keywords: quintuple puncture; frequent episodic tension-type headache

Tension-type headache is a common primary headache in clinic, which is manifested as bilateral symmetrical pain, mainly with a sense of tightness and pressure, and no pulsation. A global survey on the prevalence of headache finds that the prevalence of headache is about 52.0% and TTH is 26.0%, among which the annual prevalence of Frequent episodic tension-type headache (FETTH) is about 21.6%. Acupuncture, as a non-drug means, is effective for TTH, and has the advantages of low economic cost, no toxic side effects and so on.

Materials and methods

To observe the clinical efficacy of quintuple puncture at scalp points in the observation of frequent episodic tension-type headache.

The 32 patients were all patients with FETTH who visited the fifth outpatient Department of Acupuncture and moxibustion Department of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine from October 2021 to March 2023, including 14 males and 17 females. All of them meet the diagnostic criteria for FETTH in the International Classification of Headache Disorders (3rd Edition) published by the Headache Society in 2018.

The center needle is inclined or flat to Ashi point, Fengchi and Shuaigu, and the other four needles are inclined or flat to those points one inch away. The needles were retained for 30 minutes after getting the Qi of acupuncture, and the needles were performed once every 10 minutes during the retention period. Continuous acupuncture for 6 days, rest for 1 day, for 1 course of treatment, 4 courses of treatment

Results and discussion

The changes in the severity, duration and frequency of headache before and after treatment were compared, and the headache index and percentage of curative effect were calculated according to the Criteria for the Diagnosis and Evaluation of cephalic wind. Headache index is the sum of the score of the severity of each attack multiplied by the score of the duration of each pain, and the percentage of efficacy =[(pre-treatment index - post-treatment index)/pre-treatment index]×100%. Basic recovery: 90%≤ efficacy percentage < 100%, 5 cases; Obvious effect: 55%≤ efficacy percentage < 90%, 16 cases; Effective: 20%≤ efficacy percentage < 55%, 7 cases; Ineffective: Efficacy percentage < 20%, 3 cases. The total effective rate was 90.32%.

TTH Angelica belongs to the categories of «headache» in Chinese medicine. The cause of this disease is related to exogenous pathogenic factors such as exogenous wind and cold, as well as internal emotional injury. It is induced by mental and emotional factors such as pressure, tension, anxiety and insomnia. The liver drainage function is affected by emotion and causes stagnation of

qi machinery, which leads to obstruction of the meridians of the head and neck, and pain, which is the basic pathogenesis of this disease. The pathogenesis and pain characteristics are in line with the «Lingshu» : «All pain and tendon rotation caused by (channel tendon)», so some scholars treat this disease from the perspective of channel tendon. «Miscellaneous diseases source flow,» : «Qi transport blood, blood with qi to flow, Qi coagulation blood also coagulation», so the treatment should be to stimulate the channel qi, activating blood, up to the effect of pain.

« Lingshu•Guanzhen « records the acupuncture: «one in the central, four in the side, and floating», It can work synergically with multiple needles to get access to Qi and blood of the meridians, remove blood stasis, promote blood circulation and relieve pain. In recent years, scholars have flexibly applied acupuncture to the head by changing the acupuncture Angle and depth of the central one needle and the peripheral four needles, giving full play to the advantages of large surface and strong stimulation. From the point of view of the number of acupuncture needles, lifting acupuncture should be the local multiple acupuncture method, and studies have found that the application of local multiple acupuncture methods for TTH can obtain better clinical efficacy.

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EFFICACY OF CHINESE MEDICINE RETENTION ENEMAS IN TREATING POSTOPERATIVE RADIATION PROCTITIS IN CERVICAL CANCER: A META-ANALYSIS

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Abstract. This systematic study evaluated the efficacy of Chinese medicine retention enemas in treating post-radiotherapy radiation proctitis in cervical cancer patients. After screening six databases, 13 randomized trials were selected. Data was assessed using the Cochrane risk of bias tool and processed with RevMan5.3. Results indicated that the treatment improved symptoms, reduced inflammation, and enhanced patient quality of life. Despite limitations like varying formulas and dosages, the study supports the potential clinical use of these enemas and suggests further research for protocol development.

Keywords: Retention Enema, Postoperative Radiation Proctitis, Cervical Cancer, Meta-analysis

Cervical cancer, the fourth most diagnosed and deadly cancer in women[1], often leads to radiation proctitis in 10-20% of patients post-radiotherapy. This difficult-to-control, recurrent condition causes significant patient discomfort and lacks effective treatments. Study shows that Chinese medicine enemas, which utilize direct intestinal mucosa absorption, have shown some efficacy.

Objective

This study systematically evaluated the effect of Chinese medicine retention enema in the treatment of proctitis after radiation therapy for uterine cervical cancer, aiming to provide a basis for the treatment of this disease and the development of standard treatment protocols.

Materials and methods

Setting Inclusion and exclusion criteria, Inclusion Criteria: Inclusion: 1) Definitively diagnosed cervical cancer patients; 2) Patients with radiation-induced proctitis post-radiation therapy; 3) Control group receiving Western medicine enema therapy; 4) Treatment group receiving either Chinese herbal decoction enema or combined Chinese and Western enema therapy; 5) Randomized clinical

trials. Exclusion: 1) Studies with unclear medication composition or administration route; 2) Studies with incomplete data or unpublished results; 3) Among multiple publications by the same author or study, only the highest quality is chosen; 4) Studies not meeting inclusion criteria. Articles were screened and data extracted. Quality was assessed with the Cochrane risk of bias tool, and data processed using RevMan5.3 software. Efficacy for dichotomous data was analyzed using odds ratio (OR), and for measurement data using mean difference (MD) or standardized mean difference (SMD), with 95% CI for interval estimation. Heterogeneity was tested using the chi-square test. A fixed effect model was used if P > 0.1 and I2 <50%. If P < 0.1 and I2 > 50%, the heterogeneity source was analyzed, sensitivity analysis was conducted, or subgroup analysis was used.

Results and discussion

This study searched six databases and selected 13 articles[2,3] et,al., with basic information and methodological quality presented in Table 1 and Figure 2, respectively. All articles reported efficacy, the Primary outcome and showed significant difference with OR=3.87, 95%CI (2.92, 5.12), Z=7.44, P<0.00001, indicating higher effectiveness in the experimental group.

In addition, the secondary outcome indicators have also been reported. Symptom scores were reported as follows: abdominal pain (3 articles, [MD=-1.04, 95%CI[-1.15, -0.93], P<0.00001]), diarrhea (3 articles, MD=-1.52, 95%CI[-1.62, -1.41], P<0.00001), hematochezia (4 articles MD=-0.59, 95%CI[-0.67, -0.51], P<0.00001), and tenesmus (3 articles, MD=-0.48, 95%CI[-0.59, -0.37], P<0.00001). After removing «ChenYJ/2018,» I2 changes from 98% to 0%. Sensitivity analysis showed reduced heterogeneity. Reading the original text revealed that this article clearly marked its research content as acute radiation-induced proctitis, suggesting this study was a heterogeneity source. Inflammatory indicators showed significant improvement: IL-6 (3 articles, MD=-9.34, 95%CI[-11.10, -7.58], P<0.00001), IL-1 (2 articles, MD=-11.22, 95%CI[-14.21, -8.24], P<0.00001), and TNF-α (2 articles, MD=-4.81, 95%CI[-6.33, -3.29], P<0.00001). High heterogeneity in «IL-6 levels» was reduced after removing «JiangL/2022». Reading the original text revealed that this article clearly marked its research content as acute radiation-induced proctitis.KPS scores improved (3 articles, [MD=9.69, 95%CI[7.24, 12.14], P<0.00001]), indicating that TCM retention enema enhances patients' life quality.

Currently, radiation-induced proctitis remains a common complication following radiotherapy for cervical cancer, making its prevention and treatment critical due to its high clinical prevalence. In traditional Chinese medicine (TCM), radiation is considered a «fire poison,» causing damage to the body through «evil heat.» Our systematic review of 13 randomized controlled trials comparing TCM and Western medicine enema treatments for radiation proctitis showed TCM enemas have better clinical effects, improving patient symptoms and quality of life, suggesting potential for further clinical use. This study's included literature has limitations: 1) Varying enema formulas, dosages, retention times, frequencies, and temperatures preclude a systematic summary. 2) The quality of the included literature is generally low, which can impact the validity of the research conclusions. Future research should increase sample size for more comprehensive evaluation of TCM enema's effectiveness in treating radiation proctitis.

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ASSOCIATION OF FSHR (RS6166, RS6165) POLYMORPHISM WITH POOR OVARIAN RESPONSE IN PATIENTS UNDERGOING IVF: META-ANALYSIS

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Abstract. We performed meta-analyses to explore the relationship between FSHR rs6165 and rs6166 and POR in patients undergoing in vitro fertilization (IVF). The results suggests that rs6166 and rs6165 polymorphisms in the FSHR gene may predict the degree to which a woman's ovaries respond to COS.

Keywords: poor ovarian response, follicle-stimulating hormone receptor, FSHR, polymorphism, meta-analysis, trial sequential analysis

IVF is a multi-step process in which controlled ovarian stimulation (COS) is an essential step of IVF to promote the development of multiple follicles and the acquisition of sufficient mature oocytes [1]. However, each woman responds differently to follicle-stimulating hormone (FSH) and can be classified into normal responders, poor responders, and high responders. The incidence of poor ovarian response (POR) after ovarian stimulation ranges between 5.6% and 35.1% globally.Studies have shown that variations in genetic characteristics may affect the ovarian response to COS [2, 3], which provides a promising direction for finding markers to predict POR.

Of all the genetic polymorphisms affecting the ovarian response to exogenous gonadotropins, polymorphisms in the FSH receptor (FSHR) gene have been studied the most. There are two single nucleotide polymorphisms (SNPs) with strong linkage disequilibrium in the coding region of exon 10 of the FSHR gene, which are the focus of the study of the FSHR response to FSH stimulation. One is 307 (rs6165) located in the extracellular domain and the other is 680 (rs6166) located in the intracellular domain [4]. Amino acid changes in the protein receptor hinge region and intracellular region of these two SNPs affect gene function and alter the response to FSH [5]. Although these two SNPs are in a state of strong linkage disequilibrium, studies have demonstrated that they may influence ovarian responses in different ways.

Objective

We included comprehensive studies and performed meta-analyses to explore the relationship between FSHR rs6165 and rs6166 and POR in patients undergoing IVF.

Materials and methods

We performed comprehensive searches in six electronic databases: PubMed, Embase, Web of Science, Cochrane Library, China National Knowledge Infrastructure and China Wanfang Database for studies published from inception to March 2023. Search using keyword combinations. References meeting the inclusion criteria were selected. The relationship between FSHR rs6166 and rs6165 polymorphism and POR in patients undergoing IVF were evaluated using odds ratios (ORs) and 95% confidence intervals (CIs). A p-value < 0.05 was considered statistically significant. Cochran's Q-statistic and I2 test were used to evaluate between-study heterogeneity [6]. When P < 0.1 or I2 > 50% indicated significant heterogeneity, and random effect model was used; otherwise, fixed effect model was carried out [7]. Sensitivity analysis was performed by excluding each study to assess whether the results were reliable and stable. We used funnel plots to evaluate whether publication bias existed or not, and Egger's tests to assess the degree of asymmetry (P < 0.05 indicates the existence of publication bias). All statistical analyses were completed by Stata software 16.0 (StataCorp, College Station, TX, USA).

Results and discussion

A total of 124 articles were found, and finally included 24 literatures in this study. Of the 24 included articles, 22 studies demonstrated an association between rs6166 polymorphism of the FSHR gene and POR, six studies demonstrated an association between rs6165 polymorphism of the FSHR gene and POR. We observed a significant association between FSHR rs6166 polymorphism and POR risk in patients undergoing IVF in three genetic models (N vs. S: OR = 0.77, 95% CI = 0.63-0.95, P = 0.017; NS vs. NN: OR = 1.33, 95% CI = 1.02-1.74, P = 0.038; NN vs. NS + SS: OR = 1.38, 95% CI = 1.04-1.84, P = 0.025). We observed a significant association between FSHR rs6166 polymorphism and POR risk in patients undergoing IVF in five genetic models (C vs. T: OR = 0.61, 95% CI = 0.46-0.80, P = 0.000; CC vs. TT: OR = 0.36, 95% CI = 0.19-0.70, P = 0.003; CT vs. CC: OR = 1.58, 95% CI = 1.19-2.10, P = 0.001; CC + CT vs. TT: OR = 0.43, 95% CI = 0.31-0.60, P = 0.000; CC

vs. CT + TT: OR = 1.80, 95% CI = 1.22-2.65, P = 0.003). Both Begg's and Egger's suggested no evidence of publication bias in the meta-analysis of FSHR rs6166 and rs6165 polymorphisms. The sensitivity analysis results showed that none of the individual studies significantly deviated from the overall effect value, indicating that the results of our meta-analysis were stable.

Our study suggests that rs6166 and rs6165 polymorphisms in the FSHR gene may predict the degree to which a woman's ovaries respond to COS.

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ANALYZING THE MECHANISM OF ACTION OF ACUPUNCTURE IN THE TREATMENT OF IRRITABLE BOWEL SYNDROME

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Abstract. Irritable bowel syndrome (IBS) is a common disease in gastroenterology, which is characterized by diarrhea and abdominal pain, change of bowel habit and abnormal stool properties. Acupuncture is a commonly used treatment for irritable bowel syndrome, which can effectively alleviate the symptoms of abdominal pain and intervene in the patient's mood, and the research on its mechanism of action is increasing. The author searched the literature related to the clinical mechanism of acupuncture for the treatment of irritable bowel syndrome and found that the current study mostly started from brain gut peptide, intestinal flora, visceral hypersensitivity and mental factors, and future studies should combine the effects of acupuncture on IBS with multi-angle and multi-level analysis.

Keywords: irritable bowel syndrome; acupuncture; brain gut peptides; gut flora; visceral hypersensitivity; mental factors

Irritable bowel syndrome (IBS) is a chronic functional gastrointestinal disorder with multiple and recurrent episodes, which has a significant impact on patients' lives. Most of the current common therapies are aimed at improving abdominal pain and bowel habits for treatment, and the first-line therapies include dietary modification, use of soluble fiber and antispasmodic drugs [1]. Acupuncture has been chosen by more and more patients because of its simple and convenient operation, significant efficacy, and no side effects in long-term treatment. The selection of acupuncture points is mostly localized with meridian selection, and the same emphasis is placed on the Back-Shu and Front-Mu points as well as the lower merging points, based on the points of Tianshu, Zhongkou, Guanyuan, Qihai, Sanyinjiao, Three miles, Dachangyu(BL25), Weiyu, Zhongwan, and Shangjuxu. In recent years, many studies at home and abroad have recognized the efficacy of acupuncture in the treatment of IBS, and some results have been achieved in the study of its mechanism of action.

Objective

To analyze the mechanism of action of acupuncture in the treatment of IBS by summarizing the relevant literature, and to explore its therapeutic feasibility, so as to provide a reference basis for acupuncture in clinical treatment in the future.

Materials and methods

A computerized search was conducted on the Chinese Journal Full Text Database (CNKI) using the terms «irritable bowel syndrome» and «acupuncture» or «moxibustion» and «mechanism of action». The search term «mechanism of action» was used as the «subject», and the time period was from January 2000 to August 2023, and a total of 37 articles were found, which were not excluded because of the small sample size.

Results and Discussion

A review and analysis of the literature found

that acupuncture has a slight stimulating effect on the organism, and the main mechanisms for treating IBS are as follows: (1) effectively regulating the secretion of brain-gut peptides through the brain-gut axis [2], thus regulating gastrointestinal function; (2) adjusting the number and proportion of intestinal flora to keep them stable, or promoting the interaction between intestinal flora and the brain-gut axis to improve the gastrointestinal dysfunction of the gastrointestinal dynamics [3]; (3) regulating intestinal stress state [4], enhance intestinal dynamics, and improve visceral hypersensitivity; (4) regulate the dynamic balance between the hypothalamic pituitary adrenal axis (HPA axis) and the brain-gut [5] to improve the intestinal function and symptoms of anxiety and depression in patients.

Acupuncture has significant efficacy in the treatment of IBS, but its mechanism of action involves multiple aspects and links, and should be studied more systematically and comprehensively in the future in order to more fully utilize the clinical advantages of acupuncture in the treatment of IBS.

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ASTRAGALUS MOLECULAR BIOLOGY: CURRENT RESEARCH STATUS

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Abstract. Astragalus has a long history of use in traditional medicine and continues to be an important part of health care practice worldwide. In recent years, modern medical technologies, particularly molecular biology, have played a crucial role in advancing the study and understanding of herbal medicines. The aim of this paper is to review recent advances in this field and to show how these scientific approaches are revealing the therapeutic potential and mechanism of action of Astragalus.

Keywords: Astragalus; Astragaloside; Active compounds; Therapeutic mechanisms; NF-κB

Astragalus, a significant Chinese herb in traditional medicine, has a long history of use to enhance qi and blood functions, regulate the immune system, and improve physical fitness. With advancements in modern medicine and technology, research focusing on molecular biology is increasingly essential to fully understand the pharmacodynamics and mechanisms of action of Astragalus and other Chinese herbal medicines. This will facilitate the modernization and scientific integration of traditional medicine.

Objective

Exploring the current research status of Astragalus and its application in molecular biology, highlighting the significance of modern innovative techniques in traditional medicine.

Materials and methods

Extensive literature searches using CNKI and PubMed databases were conducted. Keywords included «Astragalus,» «active compounds,» «molecular biology,» «drug discovery,» and «therapeutic mechanisms.» This review selected and analyzed relevant research articles from the past two decades.

Results and discussion

With the development of modern science and technology, the molecular biology research

of Astragalus has gradually become the focus of attention. The main goal of molecular biology research is to deeply investigate the mechanism of action of Astragalus at cellular and molecular levels, to provide more comprehensive and scientific theoretical support for its clinical application in traditional medicine.

1. Relationship between Astragalus and gene expression

Gene expression study is a vital aspect of molecular biology, examining Astragalus-treated cells and tissues through PCR and other techniques to reveal its regulatory effects. Astragaloside compounds (HDTIC) have been found to significantly inhibit p16 gene expression, delaying cellular senescence[1]. Additionally, astragaloside can suppress IL-1β and Caspase-3 gene expression, exhibiting anti-inflammatory and anti-apoptotic effects, and reducing cerebral ischemia-reperfusion injury[2]. Astragalus's regulation of gene expression helps maintain intracellular homeostasis, enhances cellular stress resistance, and supports functions like immunomodulation and antioxidant activity.

2. Regulation of proteins by Astragalus

Proteomics is a key tool to study protein expression and regulation by Astragalus. Active Astragalus ingredients can influence protein synthesis and degradation, impacting cellular function and metabolism. For instance, Astragalus extract-formononetin was found to slow atherosclerosis development by modulating KLF4-SRA interaction[3]. Astragalus polysaccharide in a mouse tumor model inhibited the TLR4/MyD88/NF-κB signaling pathway, enhancing anti-tumor immune function[4]. These protein modulations affect cellular immune function, oxidative stress, and growth, highlighting Astragalus's role in immunomodulation and anti-aging.

3. miRNA interactions with Astragalus membranaceus

miRNAs, important non-coding RNA molecules, play a vital role in regulating gene expression in cells. Studies reveal that Astragalus regulates various miRNAs, showcasing its multi-component, multi-target, and multi-pathway effects[5]. For instance, through network pharmacology, Astragalus, particularly astragaloside, mitigates focal segmental glomerulosclerosis by modulating miRNAs related to immune, inflammatory, apoptotic, and autophagy pathways[6]. Astragalus's regulation of miRNAs affects diverse cellular processes like immune response, apoptosis, and oxidative stress, particularly reducing inflammation and suppressing immune overactivation.

In summary, In-depth molecular biology studies have revealed complex mechanisms in gene expression, protein regulation, and miRNA regulation, providing new theoretical and scientific support for Astragalus's clinical application. However, challenges remain, such as comprehending Astragalus's active components and molecular mechanisms. Future studies must delve deeper into Astragalus's molecular properties, supporting its application in modern medicine and advancing traditional medicine innovation.

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CLINICAL OBSERVATION ON THE TREATMENT OF INFANTILE ENURESIS (SPLEEN DEFICIENCY AND PHLEGM ACCUMULATION TYPE) WITH WULING WENDAN DECOCTION

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Abstract. This topic focuses on the treatment of infantile enuresis (spleen deficiency and phlegm accumulation) with traditional Chinese medicine. The collected cases were divided into two groups by random number table method. The experimental group was given Wuling Wendan Decoction, and the control group was given Xingpi Yanger Granule. Compare the differences in sex, age and course of disease between the experimental group and the control group, observe the scores and total scores of major symptoms and minor symptoms of TCM syndromes before and after treatment, and observe the recurrence. It is concluded that Wuling Wendan decoction is effective in the treatment of infantile enuresis (spleen deficiency and phlegm accumulation type), and it is better than Xingpi Yanger granule.

Keywords: infantile enuresis, spleen deficiency and phlegm accumulation type, Wuling Wendan decoction

Infantile enuresis refers to the condition that children over 5 years old can't wake up from their sleep at night, can't control their urination, urinate automatically, and wake up at least twice a week for more than three months[1]. In recent years, due to the change of parenting style and the increase of educational pressure, children's complementary food choices are more diversified, diapers are more widely used, and learning styles are more complicated, which makes the physiological and psychological pressure of modern children increase gradually, and also leads to the increase of the incidence of enuresis in children year by year[2].

This topic focuses on the treatment of infantile enuresis (spleen deficiency and phlegm accumulation type) with traditional Chinese medicine, which provides a new exploration way for the treatment of infantile enuresis on the premise of ensuring clinical curative effect.

Objective

In this study, through the clinical observation of Wuling Wendan decoction in treating infantile enuresis (spleen deficiency and phlegm accumulation type), the clinical efficacy of children and the integral changes of main and secondary symptoms were statistically analyzed, and the clinical efficacy of Wuling Wendan decoction in treating infantile enuresis (spleen deficiency and phlegm accumulation type) was observed by the tutor, which provided a new idea for the treatment of infantile enuresis with traditional Chinese medicine.

Materials and methods

Seventy-two children who met the inclusion criteria in the pediatric outpatient department of the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine were taken as the research object, and they were randomly divided into two groups, with 36 cases in each group. The experimental group was given Wuling Wendan Decoction orally, while the control group was given Xingpi Yanger Granule orally. Both groups were treated for 4 weeks. After 4 weeks of treatment, the total effective rate of children in the two groups and the changes of syndrome integral of main and secondary symptoms before and after treatment were observed and statistically analyzed. After stopping the drug for 3 months, the non-ineffective cases were followed up and the recurrence rate was counted.

Results and discussion

Chi-square (χ^2) test showed that there was no significant difference in age, sex and course of disease between the two groups ($P>0.05$), which was comparable. Comparing the total effective rate of the two groups, the total effective rate of the experimental group was 94.29%, which was higher than that of the control group (71.43%), and the difference was statistically significant ($P<0.05$), indicating that the clinical efficacy of the experimental group in treating this disease was better than that of the control group. There were statistically significant differences between the two groups in the main symptoms (enuresis times, sleep depth), secondary symptoms (fatigue, anorexia, thin stool and phlegm in throat) and the total score of TCM syndromes before and after treatment ($P<0.05$), indicating that the treatment methods of the two groups can improve the symptoms of this disease. After 4 weeks of treatment, the total scores of main symptoms, secondary symptoms, single syndromes and TCM syndromes were compared between the experimental group and the control group, and the difference was statistically significant ($P<0.05$), that is, the total scores of main symptoms, secondary symptoms, single syndromes and TCM syndromes of the two groups were improved, and the experimental group was better than the control group. The recurrence rate of the experimental group was lower than that of the control group.

The conclusion is that Wuling Wendan decoction is effective in treating enuresis in children (spleen deficiency and phlegm accumulation type), and it is better than Xingpi Yanger granule. Wuling Wendan Decoction is better than Xingpi Yanger Granule in improving the main symptoms (enuresis times and sleep depth) and secondary symptoms (fatigue, anorexia, loose stool and throat phlegm) of children. Wuling Wendan Decoction is superior to Xingpi Yanger Granule in reducing the recurrence rate of infantile enuresis (spleen deficiency and phlegm accumulation type).

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CLINICAL OBSERVATION OF DISTAL MOVEMENT ALONG MERIDIANS COMBINED WITH PLUM BLOSSOM NEEDLE TAPPING IN THE TREATMENT OF TENSION-TYPE HEADACHE

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Abstract. This study mainly introduces the clinical observation on the treatment of tension-type headache by the method of moving far along the meridian combined with plum-blossom needle tapping. 93 patients diagnosed as tension headache were divided into three groups, with 31 cases in each group. It is concluded that all three treatments can treat tension-type headache, and can effectively improve headache, physical symptoms and anxiety caused by headache in patients with tension-type headache. However, the long-term and immediate curative effect of moving along meridian combined with plum-blossom needle tapping is better than that of traditional acupuncture and plum-blossom needle tapping combined with traditional acupuncture, which can relieve pain in time and improve the quality of life of patients for a long time.

Keywords: remote movement along meridians, plum blossom needle tapping, tension headache, traditional acupuncture

Tension headache is one of the most common and common primary headaches in clinic and one of the main types of primary headaches. According to epidemiological investigation, the lifetime prevalence rate of tension-type headache in normal people is as high as 30%-78%, and the prevalence rate in adults around the world is as high as 42%[1]. According to statistics, more than 400 million people in China suffer from headaches, 30% are other types of primary headaches, and the remaining 70% are tension headaches[2].

Objective

To observe the clinical efficacy of remote movement along meridians combined with plum blossom needle tapping in the treatment of tension-type headache, and to optimize the existing acupuncture scheme, so as to provide a more effective treatment method and enrich the treatment plan for traditional Chinese medicine acupuncture treatment of chronic tension-type headache.

Materials and methods

The 93 cases who participated in this project came from the second clinic of acupuncture in the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine, all of which were diagnosed as tension-type headache. 93 cases were included, and the patients were randomly divided into observation group and control group A by random number table, and observation group B in control group was treated by distant needling along meridians combined with plum blossom needle tapping. Control group A was treated with routine acupuncture; Control group B was treated with routine acupuncture combined with plum blossom needle tapping. Each group was treated once a day, 6 times a week, and the treatment time was from Monday to Saturday afternoon. One course of treatment lasted for one week, with a total of 4 courses of treatment. The visual analogue scale of pain was observed before treatment, after the first treatment, after treatment and 4 weeks

after treatment. Before, after and 4 weeks after treatment, tension-type headache comprehensive score and Hamilton anxiety scale were observed. Before and after treatment, the scores of each dimension of tension headache were observed.

Results and discussion

VAS score: There was no significant difference between the three groups before treatment (P>0.05), which was comparable. Tension Headache Comprehensive Score and Hamilton Anxiety Scale Score: There was no significant difference between the three groups before treatment (P>0.05), and the difference was not statistically significant, but comparable. Total effective rate: the total effective rate of observation group was 96.5%, that of control group A was 90.3%, and that of control group B was 93.3%. P<0.05, the difference was statistically significant. It is suggested that the overall curative effect of observation group is better than that of control group A and control group B, and the overall curative effect of control group B is better than that of control group A.

All the three treatments can treat tension-type headache and can effectively improve the headache, somatic symptoms and anxiety of patients with tension-type headache.The long-term and immediate curative effect of remote movement along meridians combined with plum blossom needle tapping is better than traditional acupuncture and plum blossom needle tapping combined with traditional acupuncture, which can relieve pain in time and improve the quality of life of patients for a long time.

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PRESS NEEDLES AND HALF-NEEDLING TECHNIQUE FOR TREATING PERIPHERAL FACIAL PARALYSIS (WIND-COLD ATTACK ON COLLATERALS TYPE) IN CHILDREN: A RANDOMIZED CLINICAL TRIAL

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Abstract. To investigate the clinical effect and influence of Electromyography (EMG) in treating children with peripheral facial paralysis (PFP) (wind-cold attack on collaterals type) by combining press needles and half-needling technique. Forty children with PFP (wind-cold attack collateral syndrome) were randomly divided into the treatment group (press needles combined with half-needling technique) and control group (half acupuncture). Patients in both groups received 12 treatments over 2 weeks (1 treatment per day, 1 rest day after every 6 treatments). Outcome measures, including clinical efficacy, House-Brackmann (H-B) facial nerve function grading score and EMG, were recorded before treatment (0d) and after treatment (14d). Based on the analysis of outcome measures, the report indicated that the treatment group was significantly better than the control group regarding clinical recovery rate and facial nerve function recovery

Keywords: press needles, half-needling technique, acupuncture, children, peripheral facial paralysis

Peripheral Facial Paralysis (PFP), also known as Bell's paralysis, is characterized by paralysis of facial expression muscles. PFP can occur at any age, affecting about 15-40 cases per 100,000 people per year, among which children account for about 1/2-1/4 of the adult incidence [1, 2]. PFP is mainly treated with antiviral, glucocorticoid, and nutraceutical drugs [3]. However, the use of these drugs is limited due to the age of the child and the side effects of the drugs, making treatment extremely difficult.

Acupuncture has the characteristics of simple clinical operation and no side effects. Studies have shown that Traditional Chinese Medicine therapy, especially acupuncture, has gradually become the main clinical means to treat facial palsy [4]. According to the instructor's many years of clinical experience and literature review, wind-cold attack on collaterals is the most common type of PFP in children. Considering that children are more afraid of needles and have poor medical compliance, this clinical study selected the method of press needles

combined with half-needling technique to treat children with PFP (wind-cold attack on collaterals type).

Objective

To investigate the clinical effect in treating children with PFP (wind-cold attack on collaterals type) by combining press needles and half-needling technique and its effect on Electromyography (EMG).

Materials and methods

Forty children with PFP treated in the Department of Acupuncture and moxibustion of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine from January 2018 to June 2019 were randomly divided into treatment group (press needles combined with half-needling technique) and control group (half-needling technique), with 20 cases in each group. Patients in both groups received a total of 12 treatments over 2 weeks (1 treatment per day, 1 rest day after every 6 treatments). Outcome measures included clinical efficacy, House-Brackmann (H-B) facial nerve function grading score and EMG (latency and amplitude of zygomatic and buccal branches), which were recorded twice before treatment (0d) and after treatment (14d).

Results and discussion

In terms of clinical efficacy, the recovery rate of the treatment group and the control group was 95% and 75% respectively, and the recovery rate of the treatment group was significantly higher than that of the control group ($P < 0.05$).

H-B score was improved in both groups after treatment, and the treatment group was better than the control group ($P < 0.05$). This indicates that the treatment group promoted the recovery of facial nerve function better than the control group.

In terms of EMG, Comparing the latency and amplitude of the zygomatic and buccal branches of the two groups before and after treatment, the differences were statistically significant ($P <0.01$). The latency of the zygomatic and buccal branches of the treatment group was significantly lower than that of the control group ($P<0.05$), and the wave amplitude was significantly higher than that of the control group ($P<0.05$). These indicate that both groups can effectively shorten the latency of facial nerve conduction and increase the amplitude of action potentials in children, and the treatment group is markedly better than the control group.

In conclusion, treatment of PFP in children (wind-cold attack on collaterals type) by combining press needles and half-needling technique can effectively improve the H-B score, shorten the latency period of facial nerve conduction, increase the amplitude of action potentials, promote the recovery of facial nerve function, and improve the clinical recovery rate.

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THE POTENTIAL MEDICINAL VALUE OF CINNAMON

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Abstract. In Traditional medicine, cinnamon is considered to be a drug for the treatment of respiratory system, digestive system, etc. Multiple studies both in vivo and in vitro have demonstrated that cinnamon has many beneficial health properties, such as antimicrobial activity, anti-inflammatory properties, antioxidant and free radical scavenging properties.

Keywords: cinnamon, antimicrobial, antioxidant, scavenging free radicals

Cinnamon is the dried bark of Cinnamon, a plant in the Lauraceae family. It is a widely used traditional Chinese medicine and a common spice in clinical practice. Different parts of cinnamon have different proportions of the same hydrocarbon array, and the main components include: Cinnamaldehyde (bark), Syringol (leaf) and camphor (root). Therefore, cinnamon provides a series of different oils with different characteristics, each of which determines its value to different industries. It is precisely this chemical diversity that may be the reason why cinnamon has multiple medicinal values.

Objective

This paper aims to summarize the potential medicinal value of cassia bark and provide direction for future research of researchers.

Materials and methods

The research progress of pharmacological effects of cinnamon was summarized by searching CNKI and PubMed database.

Results and discussions

Abu et al. studied the effect of cinnamon oil application on the development and progress of experimental Cryptosporidiosis in mice, and they showed that cinnamon oil application helped protect susceptible hosts from opportunistic zoonotic parasites (such as cryptosporidium). The essential oil extracted from the bark of cinnamon and Syringol shows very strong activity, which can reduce the formation of 3-nitrotyrosine and inhibit peroxynitrite induced Lipid peroxidation in vitro. Mathew et al suggested that cassia bark extracts had radical scavenging properties, especially DPPH, radical and ABTS radical cations, while hydroxyl and superoxide radicals were also cleared by the tested compounds. Similar findings were noted by Prakash et al., suggesting that cassia bark had 65.3% antioxidant activity and strong free radical scavenging activity.

In conclusion, the pharmacological effects of cassia bark include: anti-microbial, free radical scavenging, and antioxidant properties. Furthermore, cassia bark appears to reduce blood glucose, serum cholesterol, and blood pressure. However, randomized controlled human trials are needed to determine whether these effects have a public health impact.

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ANALYSIS OF THE FUNCTIONAL STUDY AND ANTITUMOR ACTIVITY OF THE RUSSIAN CIVIL FUNGI INONOTUS OBLIQUUS

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Abstract. Inonotus obliquus, also known as birch mushrooms, as a wood-rotting fungus growing in the cold zone, widely grown in Russia and China's Heilongjiang Province and Jilin Province and other cold areas. Inonotus obliquus has long been known as the «cure-all» by the people of Siberia, Russia. Inonotus obliquus mainly grows under the bark of birch, silver birch, and is easy to cause decay of birch, silver birch, elm and alder. Extracts of Inonotus obliquus are used in the treatment of diabetes, cardiovascular diseases, glandular anomalies and various cancer treatments.

Keywords: Inonotus Obliquus, Separation and Extraction, Antitumor Activity

In Siberia, northwest Russia, it is believed that this fungus growing on birch can treat various cancers. Especially for the abnormal development of fruiting bodies of Inonotus obliquus, it is recommended to decoct soup for cancer patients to drink. For cancer patients, the current formulations of Inonotus obliquus include tea decoction, syrup, injection, sitz bath, aerosol, etc. According to Russian folk and experimental studies, Inonotus obliquus extracted by decoction or alcohol has anti-tumor effects in mice with tumors.

As a semi living parasitic fungus, Inonotus obliquus forms its own defense system. Produce many metabolic active substances, including secondary metabolites such as polysaccharides, triterpenoids, steroids, etc. These metabolic active compounds have effects including inhibiting the growth of different tumor cell lines, anti-free radicals, and immunomodulatory effects. In recent years, with the deepening of research, triterpenoids in Inonotus obliquus have a certain degree of inhibitory effect on tumor cells by inhibiting protein synthesis and inhibiting Mitosis.

For the study of Inonotus obliquus, it was found that Inonotus obliquus contains six monosaccharide components. Inonotus obliquus polysaccharide is a high relative molecular weight carbohydrate compound composed of at least 10 small molecule monosaccharides. Its structure is complex, and its structural characteristics are closely related to its biological activity.

Objective

The extraction of bioactive metabolites from inonotus obliquus, such as polysaccharides and triterpenoids, is based on the production of metabolites from inonotus obliquus, particularly its anti-tumor activity. Exploring the inhibitory effects of these metabolites on tumors

Materials and methods

By using new extraction processes such as hot traditional water extraction and alkaline solution extraction, as well as new extraction methods such as ultrasonic extraction and high-voltage electric field, the polysaccharide components in Inonotus obliquus were extracted. For the extraction of triterpenoid compounds, organic solvents are mostly used for extraction. Ultrasonic extraction is easier to extract through ultrasonic action, without the need for heating, and has a shorter extraction time. M Tian used ultrasonic extraction to extract triterpenoids from Inonotus obliquus, and the extraction rate was higher than that of ordinary Liquid–liquid extraction. Supercritical CO2 (SFE-CO2) extraction technology is a technology for extracting bioactive substances. It can also be widely applied in experimental research in the future.

Results and discussion

In terms of anti-tumor, Inonotus obliquus can reduce tumor activity and induce apoptosis of tumor cells. The anti-tumor mechanism of Inonotus obliquus mainly includes: reducing the expression of MMP-2, MMP-7 and MMP-9, increasing the expression of tissue inhibitor of metalloproteinase-2 (TIMP-2), and reducing NF in cancer cells- κ the expression of B. Some studies showed that Inotodiol alcohol was extracted by heating reflux and isolated from Inotodiol. It was found by MTT assay that Inonotus obliquus alcohol could significantly reduce the activity of human breast cancer MCF-7 cells. Nowadays, more and more functional foods related to Inonotus obliquus have been developed. The research on Inonotus obliquus mainly focuses on its isolation, purification, physicochemical characterization, and biological activity. By applying new extraction methods, the yield of active ingredients in Betula obliquus can be significantly increased. These compounds have shown significant therapeutic effects on various cancer cells, including liver cancer cells, human non-small cell lung cancer, ovarian cancer cells, and human cervical cancer cells.

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THE RESEARCH OF EFFECT TANSHONINE IIA TREAT KEEN OSTEOARTHRITIS

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Abstract .The goal of this study is to investigate the effect of Tanshinone IIA treat Osteoarthritis. For this purpose, the rat keen osteoarthritis model was established by surgical destabilization of improved Hulth method. Twenty-seven 8-week-old male SD rats were selected and divided into three groups: sham group, model group and treat group. Blood was collected and the expression of inflammatory factors of IL-6, IL-1β and TNF-α were measure by ELISA. The results shown that the expression of IL-6, IL-1β and TNF-α was significantly higher in the model group (all $p<0.05$) when compared to sham group. In the treatment group, when compared to those of the model group, the concentration of IL-6, IL-1β and TNF-α was reduced significantly (all $p<0.05$). In conclusion, Tanshinone IIA may inhibit KOA by reducing the expression of inflammation factor.

Keywords: keen osteoarthritis; Tanshonine IIA; inflammation; treatment

Keen Osteoarthritis (KOA) is the most common form of arthritis; the main characteristics are matrix degradation and collagen synthesis imbalance, cartilage cell metabolism disorder, inflammation activation, and cartilage aging [1]. According to statistics, the prevalence rate of KOA in people over 60 years old can reach 60% to 65%, and with the aging of the population and the increase in obesity, its prevalence is increasing, which seriously threatens human health and quality of life [2]. Tanshinone IIA (Tan IIA), a main active ingredient from the salvia, possesses many biological properties such as anti-inflammation, anti-oxidative stress, anti-blood fat and anti-tumor [3, 4]. This research builds up KOA rat model and treated with Tan IIA, exploring curative effect of Tan IIA.

Objective

building up KOA rat model and treated with Tan IIA to explore curative effect of this medicine.

Materials and methods

Sulfotanshinone Sodium Injection, STS(2211110) was provided from Shanghai No.1f Biochemical Pharmaceutical Co. Ltd (Shanghai, China). Twenty-seven Male SD rat aged 8 weeks were provided from Liaoning Changsheng Biotechnology Co. Ltd and housed in a specific pathogen-free (SPF) facility. The rat KOA model was established by surgical destabilization of improved Hulth method. Rat in model + Tan IIA group were intra-articular injection Tan IIA (0.09ml/time/week) for five weeks after surgery two weeks. Rat TNF-α (Tumor Necrosis Factor Alpha) ELISA Kit (ER1393), Rat IL-1β (Interleukin 1 Beta) ELISA Kit (ER1094) and Rat IL-6 (Interleukin-6) ELISA Kit (ER0042) were provided from Fine Test (Wuhan, China), Collecting rat serum, measuring the content of IL-6, IL-1β and TNF-α which was determined by ELISA kits according to the manufacturer's instructions.

Results and discussion

Tan IIA Inhibited inflammation In KOA model rat. The results shown that the expression of IL-6, IL-1β and TNF-α were significantly higher in the model group (all $p<0.05$) when compared to sham group. ELISA assay indicated that Tan IIA significantly reduced production of IL-6, IL-1β and TNF-α in rat blood comparing to model group ($p<0.05$) (Fig.1). These results suggested that Tan IIA could inhibit inflammation in rat blood to treat KOA.

Table. Effect of Tan IIA treat KOA model rat

	Sham group	Model group	Treat group
IL-1β(pg/ml)	60.23±10.29	77±9.20	64.69±6.96
TNF-α(pg/ml)	8.18±0.53	14.91±0.79	11.08±1.74
IL-6 (pg/ml)	231.15±42.34	433.63±34.43	267.58±9.78

KOA is one of the most common arthritis, which characterized by articular cartilage break down and inflammation. Compounds derived from traditional Chinese medicine have shown developing potentiality in the treatment of KOA, due to their anti-inflammatory activities and few side effects [5] It has been indicated that Tan IIA plays a vital role in regulating chondrocyte inflammation response in KOA[6], Our data showed that Tan IIA markedly inhibit the level of pro-inflammatory cytokine IL-6, IL-1β and TNF-α. It has been shown that pro-inflammatory cytokines, such as IL-6, IL-1β and TNF-α play vital roles in KOA progression, and Tan IIA can tackle it. In addition, the clinic application needs further exploration.

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NEW DIRECTIONS FOR THE INTEGRATION OF ARTIFICIAL INTELLIGENCE AND TRADITIONAL CHINESE MEDICINE DIAGNOSIS AND TREATMENT MODEL INNOVATION AND DEVELOPMENT

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Abstract. Starting from the actual problems faced by Traditional Chinese medicine (TCM) at present, this paper proposes that Artificial Intelligence (AI) promotes the improvement of TCM hierarchical diagnosis and treatment system, promotes the establishment of TCM diagnosis and treatment information database and promotes the standardisation of TCM diagnosis and treatment in three exploratory directions, with a view to exploring a new model of TCM diagnosis and treatment through the fusion of AI and TCM and to promote the innovation and development of TCM diagnosis and treatment methods.

Keywords: artificial intelligence, traditional Chinese medicine, innovation and development, standardization of diagnosis and treatment, hierarchical medical

With the continuous development of science and technology, Artificial Intelligence (AI) has become an important productive force to promote the innovation and development of various industries. Traditional Chinese medicine (TCM) has been inherited and developed for more than 5,000 years, and plays an important role in national healthcare with its remarkable clinical efficacy. In the face of the main problems of uneven distribution of resources, difficult information collection, and large

differentiation in TCM diagnosis and treatment, the development of AI provides a strong technical guarantee to solve these problems[1].

AI can promote the improvement of the hierarchical medical system of TCM.

According to statistics, the total number of visits of TCM medical institutions in China in 2019 was 1.16 billion[2], and hierarchical medical system can effectively alleviate the pressure of medical treatment. The development of AI provides new opportunities for the innovation and development of TCM. Primary medical institutions assist patients in entering their personal information into the big data health management platform, realising home health management for patients and sharing patient health data with large general hospitals. The two can interact effectively, provide multiple communication and contact channels relying on digital information technology, and realize two-way referral of medical resources at different levels. Under the scientific, standardised process, relying on the big data platform to gradually promote the improvement of the hierarchical diagnosis and treatment system of TCM.

AI can accelerate the establishment of diagnosis and treatment information database and improve the efficiency of diagnosis and treatment.

AI has powerful functions of information collection, extraction and processing[3], so we can use big data technology to save the patient's diagnosis and treatment process in a unified database more comprehensively, accurately and objectively. During the diagnosis and treatment, the big data platform can be fully used to obtain the patient's previous diagnosis and treatment information, and the diagnosis and treatment plan can be quickly given after correlate all four examination, making the whole diagnosis and treatment process more intelligent, convenient and efficient. We should continuously improve the patient's individual TCM electronic information database, gradually optimize the TCM electronic medical record data extraction system, develop the medical record data capture of difficult diseases and dominant diseases treated by TCM, so as to continuously improve the level and efficiency of TCM diagnosis and treatment.

AI can promote the development of standardization of TCM diagnosis and treatment.

The standardisation of TCM diagnosis and treatment can learn from the ideas of modern medicine, using modern technology to transform diagnostic information into images, electricity, pressure and other data for objective analysis[4]. The abstract TCM diagnostic information is transformed into objective and quantifiable physical information through AI intelligent algorithms to assist doctors in accurate diagnosis. In addition, AI can be used to effectively simulate the network relationship between syndromes and drug groups, realize the standardized correspondence between syndromes and prescriptions, simulate the thinking process of expert diagnosis and treatment through a variety of knowledge integration, and provide individualized treatment plans to promote the standardized development of TCM diagnosis and treatment.

In the future, making full use of AI and big data technology, combining the characteristics of TCM diagnosis and treatment and the needs of social development, exploring new TCM diagnosis and treatment modes empowered by science and technology, and promoting the continuous innovation and development of TCM will be the topics we need to continue to study.

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TREATMENT OF ASTHENOPIA WITH SEIRIN PYONEX NEEDLES ACUPUNCTURE AROUND THE EYE

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Abstract. Eye strain is a series of fatigue symptoms that appear after the eyes are overloaded with visual objects. Its symptoms mainly include eye pain, dryness, Blurred vision, headache and dizziness. In serious cases, it can also lead to memory loss and mental depression.

Keywords: Asthenopia,Seirin Pyonex Needles,Zanzhu acupoint, Sizhukong acupoint, Taiyang acupoint

Objective

The purpose of this paper is to explore the method and principle of pressing Seirin Pyonex Needles to select acupoints around the eye to treat Asthenopia.

Materials and methods

Equipment selection specification is 0.20 × 0.9mm disposable Seirin Pyonex Needles, with acupoints selected from bilateral Zanzhu acupoints, bilateral Sizhukong acupoints, and bilateral TaiYang acupoints.

The therapist disinfects both hands, instructs the patient to take a sitting position, point and locate the acupoints, disinfects the skin of the local acupoints with 75% ethanol, holds a disposable Seirin Pyonex Needles adhesive with forceps, aligns the tip of the press needle with the acupoint, presses directly into the skin, and compresses with the fingertips. After the insertion of the pressing needle, leave the needle for 24 hours. Instruct the patient to massage the pressing area of the Seirin Pyonex Needles on their own in the morning, middle, and evening every day. Press each point for 1 minute until there is a sensation of soreness, numbness, swelling, pain, and heat in the local area. After one day, the patient should tear off the pressing needle themselves.5 days of treatment per week, with a four week course of treatment, for a total of 2 courses.

Results and discussion

With the development of science and technology, the way of social work has changed, and various intelligent terminal devices are widely used in work. Visual overload will lead to Asthenopia. The symptoms of Asthenopia are not only limited to the eyes, which lead to soreness, dryness, and Blurred vision, but also lead to headache, dizziness, nausea, memory loss, and mental depression, which seriously affect work life and physical and mental health.

The description of the symptoms of Asthenopia in ancient Traditional Chinese medicine books can be traced back to the «liver fatigue» recorded by Sun Simiao, a famous doctor in the Tang Dynasty, in Qianjin Yaofang.The eye is the opening of the liver. Prolonged use of the eye can consume liver blood, leading to eye pain and blurred vision.In addition, using eyes for a long time will also strain the mind and consume blood, which will lead to blockage of channels, inability to circulate blood, loss of nutrition for eyes, Eye strain, dizziness and headache.

Seirin Pyonex Needles is a kind of acupuncture and moxibustion device with the shape of a pushpin. It is mainly composed of needle tip, needle disk and adhesive tape. When using, it needs to press and paste the needle tip at the place where the operation is required and keep it for a long time.As a relatively new acupuncture tool, press needle is the application and expansion of traditional acupuncture and moxibustion shallow needling and floating needling theories. Compared with traditional filiform needle, it has the advantages of light pain, lasting efficacy, portability and comfort. The eye muscles are shallow, the skin is fragile, and the meridians and small blood vessels are rich. The Seirin Pyonex Needles body is short and shallow, making it suitable for use in the eyes.Some studies have shown that press acupuncture can stimulate widely distributed and dense subcutaneous nerves, act on local receptors, and regulate Autonomic nervous system function through Spinal nerve.In addition, pressing the needle to stimulate local acupoints will cause the needle tip iron and chromium plasma at the embedding position to flow, generate potential difference on both sides of the cell membrane, form biological micro current, promote material exchange, have a positive regulating effect on blood circulation around the eye and nutrition supply, and can improve Asthenopia symptoms.

Zanzhu is the acupoint of The urinary bladder channel of Foot-Taiyang, which starts around the eyes and is closely related to eye diseases.From an anatomical point of view, there are periocular microvessels, Orbicularis oculi muscle muscle, and Corrugator supercilii muscle muscle distributed under the Cunzhu point. Stimulating this part is conducive to relieving periocular muscle tension. The Sizhukong acupoint is the endpoint of the Hand Shaoyang Triple Jiao Meridian, and needling this acupoint can play a role in regulating the whole body's Qi mechanism through the Triple Jiao Meridian.Moreover, there are temporal branches of the facial nerve and superficial temporal

arteriovenous branches distributed under the skin of this acupoint, and acupuncture at this area can promote blood circulation.The Taiyang acupoint is a strange point outside the meridian, which can treat many head and face diseases. The nerves and blood vessels near the temple are abundant, and it is the place where the Trigeminal nerve and ciliary nerve converge. At the same time, the facial arteries and veins and the ophthalmic arteries and veins are mutually connected here. Acupuncture of the temple can improve the nutrition condition around the eyes, evacuate local qi and blood, and alleviate Eye strain symptoms.

The above theory explains the feasibility of Seirin Pyonex Needles in the treatment of Asthenopia, which is worthy of clinical use and research.

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EFFECTIVENESS OF MODIFIED TAI CHI EXERCISE ON MOTOR DYSFUNCTION IN STROKE PATIENTS

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Abstract. This article mainly introduces the research on the therapeutic effect of the modified version of Tai Chi on motor dysfunction in stroke patients conducted in the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine from 2021 to 2022. The Fugl-Meyer assessment (FMA) was used to evaluate the motor function of the patients before and after 4 weeks of training. Berg balance scale (BBS) was used to evaluate the recovery of balance ability. The modified Barthel index (MBI) was used to evaluate the activities of daily living. The results show that the modified Tai Chi exercise can improve the motor function, balance function and daily living ability after stroke, and the effect is good, which is worthy of promotion.

Keywords: Tai Chi; modified Tai Chi exercises; Stroke; Motor dysfunction

Stroke has a high morbidity, mortality and disability rate, and is the first cause of adult death and disability in China [1]. At present, the number of stroke patients in China is gradually increasing by 2 million per year, and more than 70% of them cannot carry out normal work and life due to disability [2]. The treatment of dyskinesia after stroke has a long cycle and high cost, which brings a great burden to the society and family [3]. Conventional modern rehabilitation methods require therapists to work one-on-one with patients and are limited by space, equipment, and time. Therefore, finding a low-cost and effective treatment method is the direction of current research.

Modified Taiji is developed by analyzing the technical points of traditional exercises such as Yijinjing, Baduanjin and Taiji for improving motor dysfunction after stroke, and integrating Bobath, propriocelneuromuscular facilitation and other traditional rehabilitation techniques. It can break through the limitations of traditional and new rehabilitation techniques and give full play to the advantages of both. It is an organic combination of traditional exercise therapy and rehabilitation technology.

Objective

To evaluate the therapeutic effect of modified Tai Chi exercise on motor dysfunction in stroke patients, so as to provide new ideas and methods for the treatment of stroke sequelae.

Materials and methods

The subjects were randomly divided into stretch training group (n=31) and modified Tai Chi group (n=31) at a 1:1 ratio. The control group was given stretching training on the basis of routine treatment (according to the Chinese Stroke Rehabilitation Treatment Guidelines 2011 complete edition). The experimental group was given modified Tai chi exercise training on the basis of conventional treatment. The training time of each group was 1 time/day, 30 minutes/time, 5 days/week, a total of 4 weeks. The Fugl-Meyer motor function assessment (FMA) was used to evaluate the motor function of the patients before and after 4 weeks of training. Berg balance scale (BBS) was used to evaluate the recovery of balance ability. The modified Barthel index (MBI) was used to evaluate the activities of daily living.

Results and discussion

Before the intervention, the age, gender, course of disease, stroke type, affected side and other data of all subjects were compared and analyzed, and the results showed that there was no statistically significant difference ($p>0.05$), indicating that the general data of the selected subjects were comparable. After treatment, the Fugl-Meyer motor function score, Berg balance Scale score and modified Barthel index score of the stretch training group and the modified Tai Chi group were all increased compared with those before treatment ($p < 0.05$), and the scores of the modified Tai Chi group increased more significantly than those of the stretch training group ($p < 0.05$). The results suggest that modified Tai Chi training can improve motor dysfunction, promote the recovery of balance function, and improve the ability of daily living of patients after stroke, and the effect is better. Therefore, modified Tai Chi exercises can be used as a new treatment method in the treatment of motor dysfunction after stroke.

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DISCUSSION ON THE EFFICACY OF CHAI HU PLUS LONG BONE OYSTER SOUP IN THE TREATMENT OF MIGRAINE HEADACHE

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Abstract. This article is to investigate the effect of Chai Hu plus Long Bone Oyster Soup in the treatment of migraine. We chose 195 migraine patients as the study subjects and randomly divided them into observation and control groups. The control group was given flunarizine, and the observation group was given Chai Hu plus Long Bone Oyster Tang plus reduction treatment on this basis. After comparing the data of the two groups after treatment, it was concluded that Chai Hu Long Bone Oyster Soup has significant effect in the treatment of migraine.

Keywords: Bupleurum Chinense plus dragon bone and oyster soup, Migraine, Therapeutic effect

Objective

To explore the effect of Chai Hu plus Long Bone Oyster Soup in the treatment of migraine headache

Materials and methods

One hundred and ninety-five patients with migraine who met the inclusion criteria were selected for the study. They were divided into observation (n=98) and control (n=97) groups according to the random number table method. The control group was given flunarizine hydrochloride capsules, and the observation group was combined with Chai Hu plus Long Bone Oyster Tang plus reduction on the basis of the control group. Chai Hu Long Bone Oyster Soup: 10g of Chai Hu, 10g of Scutellaria baicalensis, 10g of Poria, 10g of Gui Zhi, 10g of Semen Armeniacae, 5g of Ginseng, 30g of Long Bone Oyster, 6g of Rhubarb in Wine, 15g of Paeonia lactiflora, 20g of Pueraria lobata, 3 jujubes, and 6g of Glycyrrhiza Uralensis. VAS scores, duration of each headache, and frequency of headaches per month were recorded before and after 4 weeks of treatment 2 months after stopping the medication. The data obtained were analyzed and processed using SPSS 21.0 statistical software.Results Comparison of clinical efficacy between the two groups: the total effective rate of the observation group was 92.86%, which was higher than that of the control group of 76.29%, and the difference was statistically significant ($P<0.05$). Compared with the pre-treatment, after 4 weeks of pre-treatment treatment, the VAS score, headache duration, and headache frequency of the observation group were lower than those of the control group, and the difference was statistically significant ($P<0.05$).

Results and discussion

Chai Hu plus Long Bone Oyster Soup is a common formula used in ancient times for the treatment of phobias, anxiety and depression, and dizziness and headache.

As migraine headaches are mostly located in the temporal region, which belongs to the Shaoyang meridian, Chai Hu and Scutellaria baicalensis are used to enter the Shaoyang meridian and go straight to the center of the disease. Modern pharmacological studies have also shown that cinnamon can dilate central and peripheral blood vessels and increase blood circulation; Puerarin can improve cerebral circulation, increase cerebral blood flow, diastole smooth muscle, inhibit platelet aggregation and other effects. The combination of all medicines can expel the evil and support the positive, treating both the symptoms and the root cause of the disease.

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RESEARCHES ON THE THEORY OF FRIGHT AND PALPITATION IN TRADITIONAL CHINESE MEDICINE

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Abstract. Fright and palpitation is often called, but fright and palpitation two connotations are really different. Therefore, the author intends to clarify the concept and connotation of fright and palpitation, fright and palpitation by consulting the ancient literature, and expound the causes of the diseases of fright and palpitation, so as to provide theoretical basis and train of thought for clinical treatment.

Keywords: Fright and Palpitation, Fright, Palpitation, Severe Palpitation, Fear,Basic Theory of Traditional Chinese Medicine

Fright and palpitation is a common disease in clinical diagnosis and treatment.Although they are often referred to together, the specific connotations between the two are not the same.In actual clinical diagnosis and treatment, the manifestations of different patients are also different. Some patients may have palpitation due to fright, or they may have palpitation without fright.Therefore, the author goes back to the source, collects a large number of ancient documents related to traditional Chinese medicine, explores and analyzes the records of fright and palpitation in ancient Chinese medicine books, takes the dynasty as the main line, analyzes the relevant discussions, and clarifies the connotation of fright and palpitation, hoping to provide reference for clinical diagnosis and treatment.

Objective

Analyze the records of fright and palpitation in ancient Chinese medicine books, clarify the connotation of fright and palpitation, identify the cause of the disease, and explore the method of treatment.

Materials and methods

By collecting a large number of ancient documents, various theories and clinical data related to fright, palpitation, fright and palpitation in traditional Chinese medicine, the materials related to fright and palpitation were screened. Then analyze and sort out, discuss the difference of the connotation of fright and palpitation and the cause of the disease.

Results and discussion

1 Theory of the Han and Tang Dynasties

Fright and palpitation appeared in Synopsis of Golden Chamber for the first time, and the two were discussed separately: Cunkou pulsates but weak, movement is fright, and weakness is palpitation. It shows that the connotations of fright and palpitation are different.

2 Theories of the Song, Jin and Yuan Dynasties

Yang Renzhai recorded in Ren Zhai Zhi Zhi Fang Theory: Fright and palpitation, can they be distinguished? Fright means fear, palpitation means severe palpitation. The book not only points out that there is indeed a difference in connotation between fright and palpitation, fright refers to fear in the heart; palpitation refers to heartbeat. In Shang Han Ming Theory, palpitation is discussed in detail: palpitation is heartbeats, and heartbeats cannot be calm. Palpitation is severe palpitation, and now people are divided into two, which is absurd. It is clearly pointed out that palpitation and severe palpitation have the same concept, both of which describe the symptoms that the heartbeat cannot be calmed down. From the relevant literature before the Yuan Dynasty, it can be seen that although fright and palpitation are often referred to together, many doctors have discussed the different connotations of fright and palpitation from the perspectives of concepts, and symptoms[1.2].

3 Theories of the Ming and Qing Dynasties

In the Ming and Qing Dynasties, the concepts and connotations of fright, palpitation, severe palpitation, and fear were clearly discussed. Yi Xue Xin Wu record: fright is caused by sudden stimulation, and it is mostly transient. Palpitation are heartbeats, also known as severe palpitation. Fear seems that people will be arrested.

To sum up, the difference in connotation between the two is clear at the beginning of fright and palpitation.Physicians in the Song, Jin and Yuan Dynasties clearly analyzed fright, palpitation, severe palpitation: the onset of fright has a clear incentive, which is caused by external stimuli, occurs suddenly, is transient, and manifests as palpitation due to fright. The connotations of the two are indeed different. Palpitation are severe palpitation, mostly caused by protracted internal injuries and diseases, accompanied by heart beating that cannot be calmed down, and there is no external stimulus.Afterwards, the Ming and Qing dynasties' discussions on fright, palpitation, and severe palpitation coincided with the Song, Jin, and Yuan dynasties. In addition, the connotation of fear was distinguished and discussed separately. Those who are afraid are fear in their hearts, fearing that they are about to be caught, and palpitation because of fear[3]. So far, the concepts of fright, palpitation, severe palpitation and fear have clear connotations. By consulting ancient books and documents, the concept and connotation of palpitation are briefly analyzed, in order to play a role in clinical diagnosis and treatment.

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META-ANALYSIS OF NEUROGENIC BLADDER RETICULATION AFTER SPINAL CORD INJURY TREATED WITH MULTIPLE NONPHARMACOLOGICAL THERAPIES

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Abstract. A total of 31 RCTS were included in this study to evaluate the residual urine volume and maximum urine flow rate of 13 non-pharmacological interventions in the treatment of neurogenic bladder after spinal cord injury. Mesh meta-analysis was used to achieve indirect comparison of efficacy among different interventions based on common control, and the results of direct and indirect comparative evidence were combined. According to the ranking probability results, the best treatment plan was obtained, so as to provide reference for clinical treatment of neurogenic bladder after spinal cord injury.

Keywords: spinal cord injury; Neurogenic bladder; Mesh meta-analysis; Acupuncture; Magnetic stimulation; Electrical stimulation

Neurogenic bladder, also known as neurogenic lower urinary tract dysfunction, is one of the most common complications after spinal cord injury. Due to the dissonance of detrusor sphincter coordination in the bladder, detrusor muscle contraction weakness or hyperreflexes, resulting in symptoms of urinary incontinence or urinary retention. In the long run, patients are prone to negative mentality,

which affects the quality of life of patients. Prolonged illness can easily lead to a variety of urinary diseases, kidney function impairment, and even death in severe cases. At present, there are various treatment methods for neurogenic bladder after spinal cord injury, and surgical treatment is risky, complicated and time-consuming, and involves excessive intraoperative bleeding, which is highly likely to cause injury to important organs and large blood vessels. Large incision trauma is prone to increase the infection rate of incision, destroy ligaments, muscle groups and muscle starting points, and the incidence of postoperative axial pain is high. There are even many adverse consequences such as cerebrospinal fluid leakage due to surgery; The purpose of this study was to compare the effects of different non-drug therapies on urination function in patients with neurogenic bladder after spinal cord injury through mesh meta-analysis, in order to select a better treatment plan for clinical treatment of this disease and provide a more reliable evidence-based basis.

Objective

A mesh meta-analysis was used to evaluate the efficacy of multiple non-drug therapies in patients with neurogenic bladder after spinal cord injury.

Materials and methods

Computer search PubMed, EMbase, Web of Science, Cochrane Library, China National Knowledge Network (CNKI), WangFang database Randomized controlled trials on non-drug therapy in patients with neurogenic bladder after spinal cord injury in VIP database were retrieved From 2013 to 20 March 2023. Literature search, screening, data extraction, quality evaluation were conducted independently by two researchers, and results were cross-checked. RevMan 5.4 and Stata17 software were used for data analysis of the finally included literatures.

Results and discussion

Electroacupuncture combined with conventional bladder function training is more effective in improving residual urine volume, and pelvic floor muscle electrical stimulation combined with pelvic floor muscle exercise training is the best in improving maximum urine flow rate.

Mesh meta-analysis showed that the top 3 SUCRA in terms of residual urine volume were electroacupuncture combined with routine bladder function training (87.5%), moxibustion combined with routine bladder function training (74.7%), and bladder electric stimulation combined with routine bladder function training (71.5%). In terms of maximum urine flow rate, the top 3 SUCRA were pelvic floor electrical muscle stimulation combined with routine bladder function training (99.8%), pelvic floor muscle training combined with routine bladder function training (72.5%), moxibustion combined with routine bladder function training (70.9%).

In summary, the current evidence shows that electroacupuncture combined with conventional bladder function training is the most likely to be the best treatment for improving residual urine volume in neurogenic bladder after spinal cord injury. Pelvic floor myoelectric stimulation combined with routine bladder function training has the greatest potential to improve the maximum urine flow rate as the best treatment.

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CURRENT STATUS AND OUTLOOK OF ACUPUNCTURE TREATMENT FOR DEPRESSION

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Abstract. The traditional way to treat depression is drug therapy and psychotherapy, but there are some special treatment methods for depression in traditional Chinese medicine. Existing clinical studies show that acupuncture is effective in the clinical treatment of depression, and plays an indispensable role.

Keywords: depression; acupuncture

With the development of science and technology, the economic promotion of modern people, the pressure is more and more big, employment pressure, life pressure, learning pressure, suppress in the heart is easy to cause depression, depression exists in different ages, brought great harm to physical and psychological, social problems brought by depression, a foreign study is expected, 2030 depression will become the world's second largest disease burden [1] in recent years, acupuncture treatment of depression in clinical trials and experimental studies have achieved certain effect.

Objective

To consult the relevant literature of acupuncture treatment of depression in recent years, understand the mechanism and specific methods of acupuncture treatment of depression, and provide a new idea and new method for the combination of traditional Chinese and western medicine treatment of depression.

Materials and Methods

Computer search Chinese journal full text database (CNKI), wan fang academic journal full text database (Wanfang), pu Chinese science and technology journal database (VIP), Chinese biomedical literature (CBM) database in nearly 5 years of acupuncture clinical randomized controlled trial of depression, using SPSS 26.0 statistical software for acupuncture treatment, acupoint selection, mechanism of descriptive analysis.

Results and Discussion

1.Acupuncture treatment of depression mainly includes luxury acupuncture therapy, electroacupuncture therapy, acupuncture combined with traditional Chinese medicine [2]

2.Acupuncture by stimulating acupoints, in order to achieve the adjustment of the viscera, upright, evil, clinical research found that acupuncture treatment of depression commonly used points have hundred, Yin hall, four god cong, ditch, inside, guan, shan, foot, three Yin, too chong, with thin, liver depression, calm mind, conform to the treatment principle of traditional Chinese medicine yu syndrome, so as to achieve the purpose of treating diseases.[3]

3. At present, the research on the mechanism of acupuncture treatment of depression in China mainly focuses on animal experiments, mainly focusing on neurotransmitters and gods

Transplasticity, the brain-gut axis, and inflammatory cytokines.[4]

Depression etiology is complex, the human body organs, systems have different degree of influence, and acupuncture in stable complex regulation system show advantages, therefore, grasp the basic characteristics of acupuncture and related mechanism and combined with clinical, can more effective for the treatment of disease, and better improve clinical.

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RESEARCH PROGRESS AND PROSPECT IN TREATMENT OF POST-STROKE COGNITIVE IMPAIRMENT BY ACUPUNCTURE

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Abstract. Post-stroke cognitive impairment is one of the main complications of stroke, which is triggered by stroke events. Stroke has the high incidence rate in both China and Rusia, and about 2/5 survivors suffering from PSCI. correlated with high disability risk, high mortality, and high burden of stroke, PSCI is a hotspot of stroke research and intervention both at home and abroad. Currently, there is a lack of treatment guidelines for PSCI, and the treatment of PSCI mostly inherits the treatment of Vascular dementia and Alzheimer's disease, resulting in high cost, many adverse reactions, and difficulty to maintain the efficacy. Acupuncture, which belongs to Traditional Chinese Medicine, has unique advantages, such as low cost, high safety in treating PSCI. In this study, the treatment of post-stroke cognitive impairment were analyzed, and expected to provide a theoretical basis for the treatment of post-stroke cognitive impairment by Acupuncture, and provide new ideas for its future treatment.

Keywords: Post-stoke cognitive impairment, Acupuncture, Research progress

Background

According to statistics, stroke is the second leading cause of death in the world, and 2/5 of post-stroke patients will suffer from post-stroke cognitive dysfunction[1]. Post-stroke cognitive dysfunction refers to a clinical syndrome characterized by cognitive impairment that appears after a stroke event and persists for 6 months, and can be divided into non-dementia cognitive dysfunction and post-stroke dementia according to severity. Cognitive dysfunction after stroke is a major factor in disability and mortality in stroke patients, an important cause of the current high burden of stroke, and has become an increasingly severe public health challenge. We urgently need effective treatment strategies, acupuncture is an important technology in traditional Chinese medicine, it has been applied to stroke patients for a long time, this article summarizes and prospects the treatment of PSCI in the treatment of acupuncture, and hopes to apply it in the future.

Acupuncture for the treatment of cognitive dysfunction after stroke

Acupuncture can improve cerebral hemodynamics, reduce inflammatory response, promote the proliferation of nerve cells. Laboratory studies have found that the crossed electric needle group significantly reduces interleukin-I6 (IL-16) and tumor necrosis factor-α (TNF-α) in rats with cerebral hemorrhage compared with the ordinary acupuncture group and promote the expression of heat shock protein 70 (HSP70), which can maintain cell stability, increase its tolerance, alleviate apoptosis, and comprehensively reduce and delay the occurrence and development of PSCI [2]. Cai Guofeng [3] et al. treated 30 patients with severe cerebral hemorrhage with cross-term acupuncture, and their Glass coma score (GCS) was better than that of ordinary acupuncture group. Wang Dongyan [4] et al. found that electroacupuncture can significantly improve CPC sleep score and MoCA score in patients with insomnia and cognitive dysfunction after stroke, so it is guessed that acupuncture is related to sleep quality and cognitive function, and acupuncture can assist cognitive function improvement by improving sleep quality. It can be seen that acupuncture can improve cognitive dysfunction after stroke, and the effect of electroacupuncture is better

Conclusion

Based on the above literature analysis, it is found that modern medical treatment of PSCI lacks clear and standardized guidelines, and in clinical practice, it is difficult to distinguish it from other dementia. With the development of traditional medicine, acupuncture techniques are abundant, methods are diverse, the public acceptance is increasing, the cost is lower than drug treatment and rehabilitation treatment, and the safety is high, which plays a unique role in the prevention and treatment of PSCI.

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PREDICTION ANALYSIS OF CANNABIS FRUCTUS Q-MAKER BASED ON CHEMICAL COMPOSITION AND PHARMACOLOGICAL ACTION

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Abstract. Cannabis fructus is rich in chemical components, mainly fatty acids, lignan amides, cannabinoids, flavonoids, alkaloids and so on. Based on the summary of chemical components and pharmacological effects of cannabis fructus, the prediction analysis was carried out according to the concept of traditional Chinese medicine quality marker (Q-Marker). The major components were fatty acids, cannabinoids and lignan amides as quality markers, and single components such as linoleic acid, linolenic acid, tetrahydrocannabinol and cannabinol as alternative substances.It provides some reference for clarifying Q-Marker of cannabis fructus and formulating scientific quality standard.

Keywords: Cannabis fructus ,Q-Marker, chemical composition, pharmacological action

Cannabis fructus is the dried, ripe fruit of the Cannabis sativa L. plant in the mulberry family.With a history of at least 3,000 years, it has the effects of anti-aging, preventing constipation, promoting cardiovascular health and regulating the body's immunity.With the deepening of clinical research on cannabis fructus plants, more studies on effective ingredients have been paid attention to.The chemical components and main pharmacological activities of cannabis fructus were summarized, and based on the scientific connotation of Chinese medicine quality markers, the quality markers of Chinese medicine cannabis fructus were predicted and analyzed, and the basis for systematic quality control research was put forward.

Objective

To analyze and predicte the quality markers of hemp seed as a whole, and provided scientific basis for establishing the quality control method system of hemp seed.

Materials and methods

Based on the summary of chemical components and pharmacological effects of hemp seed, the quality markers of hemp seed were predicted and analyzed according to the concept of Q-Marker.

Results and discussions

Hemp seed is a kind of traditional Chinese medicine, its nature is smooth, sweet taste.Spleen channel, large intestine channel.In the theory of the four qi and five tastes of traditional Chinese medicine, sweet taste can replenish energy and slow down, and has the function of nourishing stomach and relieving pain.Hemp seed has the function of moistening intestine and defecating, which is often used for blood deficiency and fluid deficiency, intestinal dryness and constipation. Modern chemical research shows that Ganping medicine mainly contains carbohydrate, fatty acid, amino acid and glycosides and other nutrients required for body metabolism.In modern chemistry, some studies have established a method for the determination of the content of 3 quality markers such as oleic acid, linoleic acid and α-linolenic acid in sesame seed, with 70% of the average value as the minimum content limit, and the total amount of oleic acid, linoleic acid and linolenic acid shall not be less than 2.40%.Hemp seed is rich in chemical components, mainly fatty acids, fatty acid esters, lignan amides, flavonoids, alkaloids, steroids and terpenoids, cannabinoids and so on.Up to 70 compounds have been isolated and identified from hemp seeds.Fatty acids and their esters accounted for 30% of all components, saturated fatty acids and unsaturated fatty acids accounted for 4.5-9.5% and 70-80% of the total fat oil, respectively.Lignan amides are the most reported chemical constituents of hemp seed.The above ingredients can produce synergistic efficacy, and can be used as an indicator of the quality of hemp seed.Second, from the point of view of efficacy.The high unsaturated fatty acids in hemp seed have good antioxidant effect.It was found that sesame seed oil could significantly improve the antioxidant capacity of rat serum, the activity of SOD and GSH-Px in serum was significantly increased ($P<0.05$), and the content of MDA was significantly decreased ($P<0.05$).The unsaturated fatty acids are mainly palmitoleic acid, oleic acid, linoleic acid, α-linolenic acid, γ-linolenic acid and so on. In addition, as a folk medicine, hemp

seed has nearly 30 patents in recent years to treat constipation, and its good effect of moistening bowel is also due to its high content of unsaturated fatty acids.In addition, hemp seed extract also has good analgesia, sedation, improve learning and memory function.Experimental studies have confirmed that hemp seed extract can effectively improve learning and memory dysfunction caused by scopolamine, sodium nitrite or ethanol, and further studies have confirmed that learning and memory can be improved by activating calcineurin.Based on its main effects and functions, linoleic acid, linolenic acid, cannabinol and tetrahydrocannabinol are well represented, and controlling the content of its active ingredients can better reflect the efficacy of hemp seed.

As a result, The major components were fatty acids, cannabinoids, lignan amides as quality markers, and linoleic acid, linolenic acid, tetrahydrocannabinol, cannabinol and other single components as alternative substances.

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RESEARCH STATUS OF SCREENING LIPASE ACTIVE SUBSTANCES BASED ON THIN LAYER CHROMATOGRAPHY-BIOAUTOGRAPHY

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Abstract. Thin layer chromatography (TLC)-bioautography technology is a method that combines thin layer chromatography separation with biological activity determination. It is a method of rapid targeted tracking separation and screening of active ingredients under the guidance of activity. This method is simple, time-saving, sensitive and specific, and can be used for the screening and evaluation of active substances of lipase inhibitors. In addition, high lipase levels may lead to elevated cholesterol levels, especially cholesterol esters. It also increases the risk of cardiovascular disease. This article reviews the purpose, methods, results and discussions of TLC-bioautography in lipase inhibitors. This technology can quickly screen compounds with good activity and lay a foundation for the development and utilization of subsequent lipase inhibitors. It is also hoped that it can provide an effective reference for the development of new lipase inhibitors in China and Russia.

Keywords: TLC-bioautography; Lipase; Inhibitor; Activity screening; Application

TLC-bioautography technology is a combination of modern chromatography and biotechnology, which originated in the 1960 s. This technology can quickly find natural active compounds and display active ingredients directly on a thin layer plate through visible spots. Up to now, as far as I know, TLC-bioautography technology is one of the widely used biochemical analysis methods in Russia, China and around the world. Lipase is an important enzyme that participates in lipolysis in organisms and decomposes fat into free fatty acids and glycerol, thereby providing energy and nutrients for the body. The regulation of lipase activity is closely related to human obesity and metabolic diseases. Therefore, it is of great biological and pharmaceutical value to find compounds that can interfere with lipase activity. TLC-bioautography is a commonly used screening method. Through this technology, the effect of compounds on lipase activity can be evaluated efficiently and quickly. Studies have shown that high lipase activity may be related to the occurrence of cardiovascular diseases such as hyperlipidemia and obesity. Excessive lipase activity may lead to excessive release of fatty acids, which in turn leads to dyslipidemia. Lipase inhibitors can reduce fat absorption and blood lipid levels, thereby reducing the risk of cardiovascular disease. Therefore, the development of new lipase inhibitors plays an important role in the treatment of cardiovascular diseases, especially hyperlipidemia.

Objective

The purpose of this paper is to review the research status of TLC-bioautography technology in the screening of lipase active substances. By exploring the potential value of this technology, we hope to provide an effective reference for the development of new anti-cardiovascular disease drugs in Russia and China.

Materials and methods

By summarizing the previous studies, the plant extract samples were applied to the silica gel thin layer chromatography plate, and the ethyl acetate: methanol: water (60: 30: 10 v / v / v) was used as the mobile phase for development. After drying, α-naphthyl acetate and enzyme solution were sprayed on the plate. Then the TLC plate was incubated at 37 °C for 20 min. Finally, the Fast Blue B salt was sprayed on the thin layer chromatography plate. The inhibited lipase dots appeared white on a purple background.

Results and discussion

Lipase inhibitors were visualised as white spots on the TLC plates. Orlistat (a known lipase inhibitor) inhibited lipase down to 0.01 mg. In this paper, the activity of lipase was screened by TLC-bioautography, and compounds with potential inhibitory or activating effects were found. These results indicate that this technology has high sensitivity and feasibility in the screening of lipase active substances, and can provide strong support for the development of therapeutic drugs for lipase-related diseases such as anti-cardiovascular diseases. Because of its simple, economical and sensitive characteristics, TLC-bioautography technology has broad application prospects in Russia and China. However, the activity and safety of the screened compounds in cells and animal models need to be further verified, laying a solid foundation for their innovative diagnosis and treatment methods in traditional medicine or clinical applications.

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EFFECT OF TETRANDRINE HYDROGEL ON RHEUMATOID ARTHRITIS

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Abstract. It is recorded that tetrandrine has anti-inflammatory, analgesic and anti-rheumatic effects. As a non-toxic and degradable three-dimensional network gel, hydrogel can be used as a drug delivery carrier. This experiment will develop an ideal local drug sustained-release system and functional hydrogel dressing. Tetrandrine is loaded into it to achieve local administration and controlled release of the drug. When the temperature is raised to body temperature, it will become a gel. The morphology, properties and crystal structure of the obtained gel were analyzed, and the hydrogel was analyzed by swelling measurement. It is proved that it is non-toxic and has biological activity. The in vitro drug release, cytotoxicity and effect on rheumatoid arthritis of the hydrogel were evaluated in vitro studies. It further provides a new idea and treatment for the clinical treatment of rheumatoid arthritis.

Keywords: Tetrandrine, Hydrogel, Rheumatoid arthritis, Characterization,Cytotoxicity

Objective

The hydrogel loaded with tetrandrine was characterized and the effect of relieving rheumatoid arthritis was alleviated.

Materials and methods

Chitosan, polyvinyl alcohol and sodium bicarbonate were used as the main materials to prepare hydrogels loaded with tetrandrine 0.5 mg/mL, 1 mg/mL and 2 mg/mL by physical crosslinking method. The structure and properties of tetrandrine hydrogels loaded with 0.5 mg/mL, 1 mg/mL and 2 mg/mL were characterized and investigated in vitro.

Results and discussion

The formation of gel was judged by tube inversion method. The loaded tetrandrine hydrogel was placed in a constant temperature water bath at 37 °C, inverted, and did not flow every 30 s, indicating the formation of the gel. Tetrandrine loaded 0.5 mg/mL, 1mg/mL, 2 mg/mL hydrogels were prepared, which were liquid at 4 °C and solid at 37 °C, realizing the transition from sol state to gel state. Through the infrared detection of the loaded tetrandrine hydrogel, it was found that the absorption peak of O-H at 3437 disappeared, and the peak moved from 3437 to 3417, indicating that hydrogen bonds may be involved in the gel process. The performance characterization of the loaded tetrandrine hydrogel showed that the hydrogel had good needle penetration and could be used as an injection. At the same time, the loaded tetrandrine hydrogel swelled in 5 mL buffer solution, and was taken out every 2 h. The water on the surface was removed by filter paper, weighed, and the swelling rate was calculated. It was found that the swelling rate of the hydrogel loaded with tetrandrine was as high as 400 % in the first 4 h. With the increase of time, the swelling rate of the loaded tetrandrine hydrogel gradually increased until the swelling equilibrium was reached at 24 h. The in vitro results showed that the hydrogels loaded with tetrandrine hydrogel had no obvious toxicity to human fibroblast synovial cells. Loading tetrandrine has the effect of alleviating rheumatoid arthritis. The treatment of rheumatoid arthritis mainly includes physical therapy and oral drug therapy. It is very important to develop a new dosage form that can be used for injection and increase drug release time. Tetrandrine has anti-inflammatory, analgesic and anti-rheumatic effects. Hydrogel, as a carrier, enables the slow release of tetrandrine to prolong the efficacy while also increasing the lubrication of the joint. This will play a greater role in the role of tetrandrine, so as to achieve a better treatment of rheumatoid arthritis.

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RESEARCH PROGRESS ON ANTI-PROSTATE CANCER AND ITS MECHANISM OF ACTION OF PHELLODENDRI AMURENSIS CORTEX

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Abstract. With the aging population and serious yoga, the incidence of prostate cancer is increasing year by year.Traditional Chinese medicine has good curative effect and advantages in the treatment of prostate cancer. Twelve biomarkers were found to be the core biomarkers of Phellodendri amurensis cortex extract in the treatment of prostatitis, and the target metabolic pathway of Phellodendri amurensis cortex extract in the treatment of prostatitis was determined, and the multi-target and multi-channel therapeutic effects of Phellodendri amurensis cortex on prostatitis were explained from the level of endogenous metabolite changes.

Keywords: Phellodendri amurensis cortex,prostatic cancer,mechanism of action

Prostate cancer (PCa) is one of the most common malignant tumors in the genitourinary system of elderly men. In recent years, with the aging of the population, the incidence of prostate cancer has increased year by year. Therefore, the research on the treatment of prostate cancer is worthy of further development and has certain theoretical and practical significance.

Phellodendri is the dried bark of Phellodendron amurense Rupr. Of Rutaceae. Cold in nature and bitter in taste, entering kidney and bladder meridian. Has the effects of clearing away heat, eliminating dampness, purging fire and detoxicating. Clinically, it is often used to treat damp-heat diarrhea, yin deficiency and excessive fire. Studies have shown that Phellodendri amurensis cortex

has a good effect in the treatment of prostate cancer, gastric cancer, pancreatic cancer, osteosarcoma and other cancers [1]. In this paper, the latest research progress of anti-prostate cancer and its mechanism of action of Phellodendri amurensis cortex was reviewed.

Objective

To summarize the research progress on anti-prostate cancer and its mechanism of action of Phellodendri amurensis cortex.

Materials and methods

Related keywords including «Phellodendri amurensis cortex against prostate cancer», «Prostate cancer treatment» and «Effective components of Phellodendri amurensis cortex» have been consulted on HowNet, Pubmed, Google Academic and other websites to see the mechanism of Phellodendri amurensis cortexin treating prostate cancer

Results and discussion

Phellodendri amurensis cortex mainly contains alkaloids, phenolic acids, limonoids, phenylpropanoids, terpenoids, sterols and volatile components.Swanson et al.[2] showed that the expression of prostate-specific antigen (PSA) in patients with prostate cancer was significantly reduced after one to two months of oral administration of Nexuridine, and the extract was well tolerated and had few toxic and side effects.AddankiP.Kumar et al.[3]used transgenic prostate cancer mouse model (TRAMP) to explore the anti-prostate cancer effect of Cortex Phellodendri extract (Nexrutine) on TRAMP mice. The results showed that prostate cancer extract could significantly inhibit the growth of tumor and delay the development of prostate cancer in TRAMP mouse model.

Sun Hui et al.[4]' s research shows that 12 biomarkers are the core biomarkers of Phellodendri amurensis cortex extract in treating prostatitis, including uric acid, 2- furoic acid, citric acid, prostaglandin A1, prostaglandin A2, retinoic acid, PGF2a ethanolamide, ceramide, 5'-deoxyadenosine, phospholipid, arachidonic acid, sphingomyelin and so on.The target metabolic pathways of Phellodendri amurensis cortex extract in the treatment of prostatitis include starch and sucrose metabolism, riboflavin metabolism, pentose and so on. The results of comprehensive histopathological and metabonomic studies show that the high-dose group of Phellodendri amurensis cortex extract has a strong anti-prostatitis effect.

Traditional Chinese medicine (TCM) has a long history of understanding tumors. However, due to the characteristics of TCM, it is very difficult for TCM to treat tumors worldwide. Therefore, it is of great significance to study and promote the treatment of prostate cancer with integrated traditional Chinese and western medicine and deeply explore the mechanism of Guanhuangbai's anti-prostate cancer.

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THE THERAPY OF TRADITIONAL CHINESE MEDICINE FOR TREATING DRY EYE

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Abstract. Dry eye is a common eye surface disease in ophthalmology, which has become a global public health problem because of its high prevalence rate, high economic cost and great impact on patients' quality of life. At present, Western medicine has some limitations in the treatment of dry eye, such as short duration, long-term use and easy to cause adverse reactions, while traditional Chinese medicine has achieved obvious therapeutic effects through syndrome differentiation, acupuncture and massage, atomization and fumigation of eyes. This article will focus on the progress of treatment of dry eye with traditional Chinese medicine, and affirm the curative effect of traditional Chinese medicine in the treatment of dry eye combined with the clinical observation of professor Yao Jing for many years.

Keywords: dry eye, traditional Chinese medicine, syndrome differentiation

Dry eye is a chronic ocular surface disease caused by a variety of factors, which leads to the instability of tear film or the imbalance of ocular surface microenvironment [1]. The incidence of dry eyes in China is more than 6.1%, and is increasing year by year[2]. The prevalence rate of dry eye is high, the economic cost is high, and it has a great impact on the quality of life of patients. TCM has unique advantages in improving the symptoms, signs and quality of life of patients with dry eye, and has achieved a certain clinical effect. Therefore, traditional Chinese medicine therapy has increasingly become a hot topic for researchers, which is summarized as follows.

Objective

To explore the syndrome differentiation and treatment methods of TCM, so as to bring theoretical basis for improving the therapeutic effect of dry eye.

Materials and Methods

By summarizing professor Yao Jing's characteristic TCM treatment methods for dry eye patients, cooperating with literature review, we summarized the characteristic treatment methods of other famous TCM doctors, and made a preliminary analysis on the methods, results and advantages of TCM treatment for dry eye.

Results and discussion

I Treatment based on syndrome differentiation Syndrome differentiation and treatment is the living soul of TCM, using the overall concept, syndrome differentiation and treatment can often achieve a good effect. TCM has a long history of understanding dry eye. As early as in the ancient book Zhengzhi Zhunsheng, it was mentioned that: «The protective liquid outside the eyeball is dry but not moist.» In TCM theory, the liver transports blood nutrients to the eye, the kidney controls the body fluid, while the lungs is mainly responsible for raising and lowering water. If the lung, liver, and kidney's function normally, water can be transported upwards to the eyes and nourishing them. By summarizing the experience of many experts, dry eye can be divided into four TCM syndrome types: lung yin deficiency syndrome, liver and kidney deficiency syndrome, liver depression and qi stagnation syndrome, yin deficiency and damp-heat syndrome. Professor Lin Yuan gave Yangyin Runfei decoction to treat dry eye of lung yin deficiency syndrome. Clinical trials showed that the total effective rate of the treatment group was 83.9%, which was higher than that of sodium hyaluronate eye drops by 54% [3]. In addition, Qiju Dihuang pills were used to treat dry eye of liver and kidney deficiency; Jiawei Xiaoyao Powder was used to treat liver depression and qi stagnation, and Yangyin Qingzhong decoction was used to treat Yin deficiency and damp-heat ,which all achieved good results.

II Acupuncture and massage Acupuncture is used to treat dry eye, selecting acupoints such

as Renzhong, Jingming, Cuanzhu, Chengqi, Taiyang, Yuyao, Hegu, Guangming, Xingjian, Ganshu, Shenshu, etc, once a day for 40 minutes. Moxibustion can also be used at acupoints around the eyes., A recent meta analysis of acupuncture in the treatment of dry eyes was included in 11 articles and 996 patients[4]. It shows that simple acupuncture treatment of dry eye can improve the total effective rate, tear secretion, tear film rupture time and subjective symptom score, all the results are better than the simple western medicine treatment group.

III Atomization fumigation of eyes The atomized fumigation of traditional Chinese medicine uses the warm effect of steam to dilate the capillaries of the skin and enhance the transdermal absorption of the drug. In addition, warm steam can improve blood circulation, improve eye metabolism. This treatment increases drug penetration and absorption through the dual effects of heat and drugs, and then improves symptoms such as dryness and itching.

As a result, TCM has unique advantages in the treatment of dry eyes, and the clinical effect is remarkable. From these discussions, it is not difficult to see that the description of xerophthalmia in TCM is very comprehensive, from disease name to clinical symptoms, etiology and pathogenesis, treatment based on syndrome differentiation and characteristic treatment. It provides a theoretical basis for our doctors to apply internal and external treatment of TCM in clinical work. In the process of future research, Chinese medicine researchers should devote more energy to experimental research, combined with advanced science, technology and methods. Continue to explore and clarify the therapeutic mechanism of traditional Chinese medicine in the treatment of dry eyes, so as to open up a broader space for the treatment of dry eyes.

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META-ANALYSIS OF ACUPOINT-RELATED THERAPIES IN THE TREATMENT OF PERIMENOPAUSAL INSOMNIA

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Abstract. Objective This study systematically evaluated the efficacy of acupoint-related therapies in the treatment of perimenopausal insomnia to provide a reference for clinical medication. Methods We searched Cochrane Library, PubMed, Chinese National Knowledge Infrastructure (CNKI), Chinese Science and Technology Journal Full-text Database (VIP), China Biology Medicine disc (CBM), Wanfang Medical Journal Full-text Database from the establishment of these databases to December 31st, 2022 for the randomized controlled trials of acupoint-related therapies and conventional western medicine in the treatment of perimenopausal insomnia. Data extraction and quality evaluation of the included literature were conducted for meta-analysis by using RevMan5.4 software. Results 23 RCTs with a total of 1619 patients were included, and the clinical total effective rate, Pittsburgh Sleep Quality Index (PSQI) score, Anxiety Scale score, Depression Scale score, and clinical efficacy score were evaluated. Conclusions Acupoint-related therapies have great advantages and potential in improving the efficacy of perimenopausal insomnia treatment, which improves sleep quality and decrease anxiety, depressive and clinical symptoms. However, the number of RCTs and patients was limited in this systematic review, and there were selective bias and publication bias in the included studies, so More large-sample, multi-center, high-quality randomized double-blind controlled trials are needed to provide more valid evidence.

Keywords: acupoint-related therapy; perimenopausal insomnia; quality evaluation; meta-analysis

Introduction

Perimenopause is a special physiological period that women must go through. During this period, women's ovarian function declines, hormone secretion is disordered,and the (hypothalamic-pituitary-ovarian axis is dysfunctional, resulting in a series of symptoms which are known as a perimenopausal syndrome (PMS), of which

perimenopausal insomnia (PMI) is the most typical symptom, and its current incidence is increasing year by year [1]. PMI refers to the sleep disorders that occur before and after menopause in women, mainly characterized by having trouble falling asleep, insufficient sleep time, and poor sleep quality, and can be accompanied by anxiety and vexation, resulting in various physical and mental discomforts. Therefore, this meta-analysis aimed to evaluate the clinical efficacy of acupoint-related therapy in the treatment of perimenopausal insomnia, in order to provide a reference for the clinical application of acupoint-related therapy in perimenopausal insomnia.

Materials and Methods

The search databases included: Cochrane Library, PubMed, Chinese National Knowledge Infrastructure (CNKI), Chinese Science and Technology Journal Full-text Database (VIP), China Biology Medicine disc (CBM), and Wanfang Medical Journal Full-text Database. The Chinese search term included «perimenopausal insomnia, randomized controlled trial, acupoint catgut embedding, acupuncture,acupoint application, acupoint injection», etc., and the English search term included «perimenopausal insomnia, randomized controlled trials, acupuncture, moxibustion, acupoint sticking and acupoint injection". The search strategy was subject words combined with free words. The publication time of the literature ranged from the establishment of the database to December 31, 2022. Grey literature such as conferences and dissertations was also searched.

Results

Over 200 articles in Chinese articles and over 100 articles in English were initially searched. More than 200 articles were left after screening by reading titles and abstracts. Further full-text reading was carried out to exclude literature with duplicates and studies which did not meet the inclusion criteria, and finally, twenty-three left, of which twenty were in Chinese, and three in English.

Discussion

Acupoint-related therapy is currently widely used in PMI treatment, mostly from the perspective of regulating the yin and yang imbalance of the internal organs, through the acupuncture point laxative method to achieve more depletion and make up for the deficiency, and then to achieve a state of yin and yang balance. The regular-selected acupuncture points mainly are in the heart meridian, liver meridian, and kidney meridian, and the specific acupoints are chosen according to the condition of different patients.

The results of this study showed that acupoint-related therapy had no significant effect on serum hormone levels in patients with PMI. Menopause is a normal physiological change. During perimenopause, due to ovarian failure, sex hormone levels fluctuate, and eventually, estrogen levels decline. It is irreversible, and an increase in estrogen levels in the short term does not represent the restoration of ovarian function. The correlation between changes in hormone levels and sleep quality is unclear, and further research is needed.

Conclusion

The application of acupuncture point-related therapy can improve sleep quality and anxiety and depression in PMI patients, but due to the insufficient quality of high-quality RCT and the publication and selection bias, its effectiveness still needs to be further verified, so more multi-center, large-sample, and high-quality clinical trial data are needed. At the same time, its effect mechanism needs to be further elucidated.

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THE BEST TECHNOLOGICAL PARAMETERS OF EVODIA RUTAECARPA FOR HOT WATER NET PROCESSING METHOD: BASED ON RAW264.7, L-02 CYTOTOXIC AND ANTI-INFLAMMATORY TWO-WAY EFFECTS

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Abstract. Evodia (ED) is a renowned Chinese traditional medicine widely used in clinical practice. However, it possesses certain toxicity that must be properly addressed to prevent poisoning or weakened therapeutic effects. But there are varying opinions and lack of consensus among various records regarding the technological parameters of hot water washing for ED. It is worth noting that to date, no thorough research has been conducted on the specific soup washing technology for ED. We investigated the cytotoxic and anti-inflammatory effects of ED decoction on RAW264.7 and L-02 cells and optimized the ED decoction preparation parameters using single factor study and response surface analysis with water addition, stirring speed, and washing time as parameters. The results of the single-factor test on RAW264.7 cells and L-02 cells demonstrated that the toxicity of ED was significantly influenced by washing time, the amount of water and stirring speed.

Keywords: Evodia, hot water washing, washing technology, decoction, cell

Traditional Chinese medicine in China is often processed before use. According to TCM theory, processing can alter the properties of medicinal materials, enhancing their benefits and reducing potential toxicity. These processing methods, developed over a long history, are considered simple and effective. For example, Evodia (ED) is recommended to be processed through "hot water washing" to optimize its effects and ensure safety. However, despite the consistent mention in medical books across past dynasties that ED should be washed with hot water, the specific processing conditions vary that troubled the modern processing of ED. ED has a variety of pharmacological activities, of which the anti-inflammatory activity is very prominent, and it has a good therapeutic effect on gastritis [1], enteritis [2], and other inflammatory diseases. With the deepening of people's understanding of ED, its toxicity is also known by people. Improper processing of ED may lead to poisoning. Research has indicated that ED possesses potential hepatotoxicity [3], and cardiotoxicity, with hepatotoxicity being the most apparent. This research aimed to explore the modern scientific understanding of the ancient method of ED decoction washing from the perspective of toxicity and efficacy, while also standardizing the washing process parameters for ED.

Objective

The study aimed to optimize the processing technology of ED by reducing its toxicity while retaining its efficacy.

Materials and methods

The cytotoxicity of ED decoction on RAW264.7 cells and L-02 cells, as well as the decoction's anti-inflammatory effects, were assessed. The amount of water, wash times, wash temperature, stirring speed, and wash time were considered as parameters, and the preparation parameters of the ED decoction were optimized through single-factor investigation and response surface methodology.

Results and discussion

First of all, a single factor investigation is carried out, and the results show that wash times, soup to wash the stirring speed, temperature, soup with water and wash time and amount of water of ED soup washed by five factors such as retention effect has significant effect, However, due to the continuous nature of variables such as wash times and drying methods after washing the soup, the investigation proceeded only using a single factor investigation method. Specifically, the soup was washed three times and dried between each wash. Since the maximum temperature of water was 100□, it was not possible to investigate temperatures above this optimal threshold after the single factor investigation. Therefore, a temperature of 100□ was selected for the soup washing process. Then, the Star design experiment method was employed to optimize the stirring speed, water used for washing the soup, and soup washing time. In this experiment, the stirring speed, wash water, and wash time were denoted as independent factors A, B, and C, respectively. These factors were tested at five levels, which included the center point, factorial design point, and extreme value points (0, 1, -1, 2, -2). Two response parameters, namely the cell survival rate (Y1, %) and NO inhibition rate (Y2, %), were measured using the central point experimental design method.

According to maximizing cell survival rate and NO inhibition rate, the optimal soup washing conditions were predicted by the central design as follows: A=379 rpm/min, B= 8.29 ml /g, C=1.64 min. Combining the above results, slight adjustments were made to these values for the sake of

convenience and practicality. As a result, the final recommended settings are as follows: adding eight times the amount of boiling water at 100°C and performing three rapid washes with a duration of 1.6 minutes each These modifications ensure ease of implementation while still retaining the overall effectiveness of the optimized decoction washing process.

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RESEARCH PROGRESS OF ACUPUNCTURE IN RUSSIA

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Abstract. Traditional Russian medicine has been influenced by Chinese culture and formed its own unique medical system. This study reviews the development and clinical application of acupuncture in Russia. Russia's contact with Chinese acupuncture can be traced back to the Song Dynasty, and through the continuous development and cooperation between China and Russia, acupuncture has been deepened and developed in the research and application of Russia, accumulating a wealth of acupuncture clinical diagnosis and treatment cases. In the 21st century, China and Russia have friendly exchanges, and acupuncture has also become an important clinical means in Russia.

Keywords: traditional medicine; China and Russia; Acupuncture; clinical application; Reflexology

Traditional Russian medicine has been influenced by cultures such as Persia, Mongolia and China, forming its own unique medical system. Especially in the history of medical exchanges with China, which can be traced back to the Song Dynasty, about 960-1127 AD, traditional Chinese medicine and acupuncture and other traditional medicine treatments have been introduced into Russia, after the founding of New China, the Soviet Union sent experts, doctors, etc. to China to investigate, and the exchange and cooperation of acupuncture and moxibustion continued to increase. In 1973, medical research institutes throughout the Soviet Union continuously established research institutes for acupuncture therapy. In July 2016, the first TCM hospital recognized by Russian law – the St. Petersburg Center for Traditional Chinese Medicine of Beijing University of Chinese Medicine, was established, and the cooperation in acupuncture between China and Russia has been continuously strengthened [1].

Clinical application of Russian acupuncture

For a long time, Russia and other countries have referred to Chinese acupuncture as reflexology. According to the available literature, acupuncture has been found to have been fully integrated into the Russian traditional medicine system and has become an important medical specialty. For the therapeutic mechanism of acupuncture, they believe that acupuncture releases certain chemical chemicals to make the acupuncture points act as a regulator to improve microcirculation. The Soviet Union used this method to balance the acid-base balance of astronauts, and it was observed that this method had a good efficacy [2]. According to reports, acupuncture is used in Russia for the treatment of lumbar disc herniation, and the clinical cure plus improvement rate reaches 73.5% [3]; In Russia, patients with simple piriformis syndrome were treated through acupuncture, manipulation, and Hezhichuan injection therapy, and the healing rate of the traditional Chinese medicine group reached 82%, which was significantly higher than that of the Russian medical group, indicating that the combination of traditional Chinese medicine and Western medicine was better in the treatment of this syndrome [4]; In addition, acupuncture therapy has also been used in the treatment of

frozen shoulder, brain diseases, peripheral nerve diseases, psychiatric diseases and other diseases [1].

Russian Writings on Acupuncture

In 1854, Татаринов А.А, the first Chinese doctor of Chinese medicine to study Chinese acupuncture, completed a manuscript «Chinese Acupuncture and Tuina», and his representative work is «A Review of Chinese Anesthesia and Hydrotherapy» [5]. In 1858, Bazilevsky (Базилевский С.И) brought back more than 400 pages of Chinese medical manuscripts, including translations of the Compendium of Materia Medica, Chinese medicine, acupuncture and other medical treatises [6]. In the library of the Oriental Department of St. Petersburg University in Russia, there are 9 categories of Chinese medicine classics, of which there are three different versions of «Acupuncture and Moxibustion Dacheng» in the general theory of acupuncture, and the acupuncture method is «Taiyi Shen Needle» [7]. In addition, more than 40 journals in Russia now publish papers on acupuncture, such as Principles of Acupuncture Reflexology, Acupuncture Therapy, Anesthesiology and Resuscitation [8].

Epilogue

In summary, acupuncture therapy has been widely used by clinicians in Russia and has accumulated a large number of cases, but at present, there are insufficient acupuncture education and clinical medical activities in Russia, and the understanding of acupuncture is not comprehensive enough, which can be continuously improved and perfected in future exchanges and cooperation between China and Russia.

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THE DEVELOPMENT OF TRADITIONAL CHINESE MEDICINE IN RUSSIA

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Abstract. In China, traditional Chinese medicine, as a part of the mainstream healthcare system, is used daily to treat and prevent various diseases. Typical Chinese medicine therapies mainly include Chinese herbal medicine, acupuncture and moxibustion, massage, etc. With the development and contribution of traditional Chinese medicine in the world, this paper summarizes the development of acupuncture and moxibustion and traditional Chinese medicine in China and Russia.

Keywords: Traditional Chinese Medicine; Acupuncture and moxibustion; China and Russia; Traditional Chinese medicine products; develop

Development of acupuncture and moxibustion

The history of medical exchanges between China and Russia can be traced back to the Song Dynasty. Traditional Chinese medicine, acupuncture and moxibustion and other traditional medical treatment methods were introduced into Russia through folk exchanges [1]. The research and application of acupuncture and moxibustion in Russia has been quite extensive, and a wealth of acupuncture and moxibustion clinical diagnosis and treatment cases have been accumulated [2-5]. In the 21st century, with the deepening of scientific and technological exchanges and cooperation between China and Russia, acupuncture and moxibustion

has been fully integrated into the Russian medical system and has become an important means of clinical diagnosis and treatment.

Development of drugs

Chinese herbal medicine mainly includes single medicine, prescription and traditional Chinese patent medicines and simple preparations. As an important medical resource, traditional Chinese patent medicines and simple preparations has been widely accepted and applied in clinical practice in China due to its easy use, easy storage and high cost efficiency. In recent years, with the development and acceptance of traditional Chinese medicine around the world, many traditional Chinese patent medicines and simple preparations companies have gained access to the international market, and successfully registered several Over-the-counter drug or prescription drugs in Russia, the European Union, Singapore and other regions and countries that mainly use western medicine.

Although the spread of traditional Chinese medicine in Russia has led to the emergence of a large number of professional and popular literary works. However, through the analysis of these papers and publications, it can be found that doctors' interests are mainly focused on acupuncture and moxibustion, and books on traditional Chinese medicine and pharmacology have been scarce for a long time [6], leading to academic debate. The registration process of traditional Chinese medicine products in Russia is complex and difficult [6]. Traditional Chinese medicine preparations and diagnosis and treatment cannot be guaranteed, and the effectiveness of traditional Chinese medicine cannot be fully realized.

With the growing voice of Traditional medicine in Russia, the government attaches great importance to the legislation of traditional Chinese medicine. In terms of promoting traditional Chinese medicine, the Russian Ministry of Health and the Ministry of Education are collaborating with Chinese traditional Chinese medicine management departments, universities, and traditional Chinese medicine institutions in Russia to facilitate the certification of traditional Chinese medicine practitioners in Russia in terms of academic qualifications and broader medical qualifications [7]. In Chinese medicine clinics and Chinese medicine stores in Russia, people can accept the diagnosis and treatment of Chinese medicine practitioners, and buy Chinese medicine and traditional Chinese patent medicines and simple preparations.

Conclusion

Today, when the western medical system is dominant, the value and advantages of Traditional medicine are constantly reevaluated and explored. At the same time, with the promotion of the «the Belt and Road» initiative, the cooperation between China and Russia in various fields has been continuously strengthened. It can be said that the development of Russian traditional Chinese medicine has ushered in new opportunities.

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CLINICAL EFFICACY OF MODIFIED HUANGLIAN WENDAN DECOCTION IN TREATING H-TYPE HYPERTENSION AND ITS INFLUENCE ON COGNITIVE FUNCTION

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Abstract. Objective: To study the clinical efficacy of modified Huanglian Wendan Decoction in the treatment of H-type hypertension and its influence on cognitive function. Methods: Seventy-two patients with H-type hypertension combined with mild cognitive impairment (MCI) were divided into two groups by random number table method. The control group was treated with conventional Western medicine, and the observation group was combined with supplemented Huanglian Wendan Decoction on this basis. Four weeks after treatment, TCM syndrome scores, homocysteine (Hcy), blood pressure (BP), fasting blood glucose (FPG), serum insulin (FINS), insulin resistance index (HOMA-IR), Montreal Cognitive Assessment Scale (MoCA) scores and the occurrence of adverse reactions were compared between the two groups before and after treatment. Results: After treatment, the levels of TCM syndrome scores, Hcy, BP, FPG, FINS and HOMA-IR in 2 groups were lower than before, while the MoCA score was significantly increased, and the observation group was better than the control group, the difference was statistically significant ($P < 0.05$). No adverse reactions occurred in the two groups. Conclusion: Modified Huanglian Wendan Decoction combined with conventional western medicine can effectively improve the clinical symptoms of hypertensive patients with MCI, reduce Hcy, improve insulin resistance (IR), and enhance cognitive function, without any adverse reactions.

Keywords: Modified Huanglian Wendan Decoction; H-type hypertension; Cognitive function

Hypertension, as one of the most common cardiovascular diseases, has a high incidence and prevalence. Homocysteine is a metabolite of the body. Studies have shown that hyperhomocysteinemia (HHcy) is an independent risk factor for cardiovascular and cerebrovascular diseases. Hypertension with HHcy is H-type hypertension, which is more closely related to cognitive function impairment than simple hypertension [1]. Huanglian Wendan Decoction, which is composed of Wendan Decoction and Coptis chinensis, has the effect of clearing heat and drying dampness, expelling phlegm and removing blood stasis. Modern pharmacological studies have shown that Huanglian Wendan Decoction has anti-inflammatory effects, lowering blood pressure, regulating glucose and lipid metabolism, and has been widely used in the prevention and treatment of cardiovascular and cerebrovascular diseases [2].

Objective

To observe the clinical efficacy of modified Huanglian Wendan Decoction in treating H-type hypertension with excessive phlegm-dampness and its influence on cognitive function, and to provide a new therapeutic idea for the treatment of hypertension complicated with MCI.

Materials and methods

72 subjects who met the inclusion criteria were randomly divided into 2 groups. The control group was given 10 mg enalapril maleate folic acid tablet orally once every morning; the treatment group was given supplemented supplemented with modified Huanglian Wendan Decoction, 150 mL each time, twice a day, and divided into morning and evening. The course of treatment was 4 weeks.

Results and discussion

Epidemiological studies have shown that the incidence of cardiovascular and cerebrovascular events in patients with H-type hypertension is significantly higher than that in patients with simple hypertension, and hypertension and HHcy have a significant synergistic effect on events leading to cognitive function impairment [3]. CI is one of the serious clinical complications of hypertension caused by cerebral microvascular disease. IR is its core mechanism. Studies have shown that HHcy and hypertension can both promote the progression of IR, and in patients with H-type hypertension, they have a synergistic effect on IR. However, hyperinsulinemia caused by IR inhibits the activity of Hcy metabolic enzymes, resulting in an increase in Hcy concentration [4].

Previous studies have confirmed that Huanglian Wendan Decoction can improve insulin resistance and reduce Hcy level [5]. Pharmacological studies have shown that Chinese medicine in Huanglian Wendan Decoction can improve cognitive function [6].

In summary, compared with the symptomatic treatment of western medicine alone, Huanglian Wendan Decoction has a significant effect in the treatment of H-type hypertension complicated with CI without any adverse reactions, providing a new idea for the treatment of hypertension complicated with CI and worthy of clinical promotion.

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THE INHERITANCE AND DEVELOPMENT OF DIALECTICAL DIAGNOSIS OF SIGHT TO TRADITIONAL CHINESE MEDICINE EYE DIAGNOSIS

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Abstract. This paper introduces Professor Wang Jinjue of the Chinese Academy of Traditional Chinese Medicine Sciences on the research and innovative development of eye diagnosis in traditional Chinese medicine observation. Taking the patients in Beijing Yong'an Pharmacy and Guang'anmen Hospital of Traditional Chinese Medicine as samples, a digital diagnosis system of eye syndrome differentiation was established. We have innovatively developed and applied traditional Chinese medicine visual diagnosis from theoretical, clinical, and experimental perspectives.

Keywords: dialectical diagnosis of sight

Traditional Chinese medicine (TCM) diagnosis differs from Western medicine's use of instrumental tests and data analysis. TCM relies on four diagnostic methods: observation, listening and smelling, questioning, and palpation. Observation, which includes visual examination, holds significant importance and is placed as the first method among the four. In TCM, observation refers to a purposeful examination by the doctor of a patient's specific body parts or the entire body. By gathering information through observation, the doctor comprehensively evaluates the patient's physical and mental health or disease status, thus providing a treatment plan.In the classic TCM text «Huangdi Neijing,» it has been mentioned that the eyes are closely related to the internal organs and meridians throughout the body. Professor Wang Jinjue, based on classical TCM theory and aided by modern scientific technology, has proposed the method of diagnosis through eye examination. Professor Wang focuses on observing the white part of the eyes to diagnose internal organ diseases.

Objective

By using visual diagnosis to diagnose illnesses and establishing a digitalized system for visual pattern identification, we aim to promote objectivity in TCM diagnosis.

Materials and methods

In the initial stage, eye images were captured at various clinics and wards. In the later stage, the focus shifted to selecting cases from Beijing Yong'an Pharmacy and Guang'anmen Traditional Chinese Medicine Hospital. Electronic technology and computer techniques were employed to propose several methods for image analysis and enhancement. These methods included a color correction approach based on von Kries color adaptation, an automatic tracking method for locating the white part of the eyes and blood vessels based on adaptive edge tracing, and a fast iterative method for shape reconstruction from shading problems. As a result, a «Wangmu Bianzheng» (Observation and Differentiation) digital diagnostic experimental system was established, integrating these techniques to aid in the diagnosis process.

Results and discussion

Through theoretical research and clinical validation, it has been demonstrated that observation of the eyes can discern the etiology, progression of

diseases, and disorders of the internal organs. In a study focusing on the syndrome of epigastric pain, 89 cases were selected for digital experimental analysis. The experimental system achieved a diagnostic accuracy rate of 80%, with partial accuracy rates of around 10%. Additionally, 385 cases without epigastric pain were selected, and the experimental system achieved an accuracy rate of close to 75%, with partial accuracy rates greater than 10%. These results confirm the feasibility of digitizing the «Wangmu Bianzheng» (Observation and Differentiation) diagnosis method.

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RESEARCH PROGRESS ON MECHANISM OF TRADITIONAL CHINESE MEDICINE TREAMENT OF TIC DISORDER

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Abstract. In recent years, Tic disorder, as a common disease in children, has received more and more attention from the society. If it is not treated in time, there will be sequelae in adulthood, depression, anxiety and other emotions, which will seriously affect the daily life of children and cause serious social impact; At present, traditional Chinese medicine has the advantages of safety and effectiveness in treating TD. Here is a summary of the existing mechanisms of traditional Chinese medicine in treating TD.

Keywords: Tic Disorder,Traditional Chinese Medical science,mechanism

TicDisorderinchildrenisakindofneuropsychiatric disorder.It is more common in children aged 3-15 years old, with clinical manifestations of involuntary muscle movement in one or more areas, such as eyebrow squeezing, shoulder shrugging, nose wrinkling, etc., accompanied or not accompanied by vocal tic behavior such as clear throat and obscene language.At present, traditional Chinese medicine mostly uses Chinese medicine decoction, acupuncture and moxibustion, massage, ear points pressing beans and other methods to treat, which has achieved good clinical effects.The research on the mechanism of traditional Chinese medicine for treating TD is still small-scale, and the existing mechanisms of traditional Chinese medicine for treating TD are summarized as follows.

Objective

By describing Research progress on mechanism of Traditional Chinese medicine treatment of Tic disorder in recent years, with a view to providing reference and new horizons for clinical workers in the treatment of depression.

Materials and methods

We searched and analyzed the literature with the keywords "Tic Disorder", "Traditional Chinese Medical science", "mechanism"on China Knowledge Network and PubMed during the period of 2023-2019.

Results and discussion

A total of 30 pieces of related literature were searched, and 13 pieces of literature unrelated to the present study were excluded, resulting in a total of 17 valid pieces of literature, including 12pieces of literature in Chinese (accounting for 70.58% of the total literature) and 5 pieces of literature in English (accounting for 29.41% of the total literature). In recent years, many studies have confirmed that the regulation of the level of Monoamine neurotransmitter affects the occurrence of a variety of neuropsychiatric diseases.

The pathogenesis of TD is not clear. A large number of studies believe that if the cortical basal ganglia thalamo cortical (CBGTC) network and the connections in the cortex are not mature, the synthesis, transport and release of dopamine(DA) will be blocked at a certain link, causing the excitation or disinhibition of the motor area of the Cerebral cortex, the imbalance of neurotransmitters, and the body twitch phenomenon.Cheng Shen [3] found that Tianma Gouteng Yin can improve the tic behavior of rats and promote its pathway phosphorylation

to exert neuroprotective effects.The study[4] found that after acupuncture treatment, Catecholamine catabolism in the brain of rats was active, which reduced the contents of amine neurotransmitters DA, NE, etc., which may be one of the molecular mechanisms of acupuncture treatment to reduce the twitch behavior of Tic disorder rat models.

The 5-HT system is involved in the balance regulation of the nervous system in the body and may play an important role in the pathogenesis of Tourette syndrome in children.The research[5] shows that , compared with normal people, the serum 5-HT level of children with tic syndrome is significantly reduced. The systematic treatment of Gastrodin tablet can significantly inhibit the stereotyped movement of the model rats with tic syndrome, and significantly increase the IDPN induced reduced Striatum Extracellular fluid 5-HT concentration. Zhang Yan [6] believes that acupuncture combined with Haloperidol can effectively improve the levels of DA and 5-HT in children with tic, and effectively treat Tic disorder.

Neurotransmitters and immune factors participate in the pathogenesis of Tic disorder, and the causal relationship between various transmission pathways and Tic disorder needs to be clarified. At present, Chinese medicine treatment has a good effect on Tic disorder in clinical treatment, which has the advantages of small side effects, safety, and high patient compliance.However, the clinical research on the abnormal secretion of neurotransmitters and the influence of immune disorders by traditional Chinese medicine on Tic disorder has some shortcomings, such as small sample size and lack of Data deficient.Therefore, the research on the mechanism of TCM treatment of Tic disorder needs to be deepened.

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A STUDY ON ACUPUNCTURE AND CHINESE MEDICINE ADJUSTMENT TREATMENT OF POSTPARTUM DEPRESSION

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Abstract. Postpartum depression is a serious mental illness and the most common complication of childbirth. In recent years, the incidence has increased year by year, and maternal postpartum depression has a negative impact on the behavioral, emotional and cognitive development of infants. Western medicine mainly treats this disease with antidepressant drugs, but there are problems such as unsafe medication during lactation, many adverse reactions, and narrow antidepressant spectrum. Due to the special physiological factors of women and many obstacles to postpartum medication, the unique advantages of TCM treatment have gradually emerged, including a variety of prevention and treatment programs combining internal and external treatment such as traditional Chinese medicine, acupuncture and traditional Chinese medicine.

Keywords: postpartum depression, Chinese medicine; Acupuncture; Postpartum adjustment

Postpartum depression is a serious mental illness, is the most common complication of childbirth, in recent years the incidence of the disease has shown a trend of increasing year by year, epidemiological survey shows: foreign incidence of 10%-15%.Postpartum depression also adversely affects the baby's behavioral, emotional and cognitive development. Therefore, determining the best treatment is essential for social stability, family harmony and the health of offspring. Western medicine mainly treats this disease with antidepressant drugs, and the efficacy is certain, but there are disadvantages such as unsafe lactation, many adverse reactions, and narrow antidepressant spectrum. Due to the special physiological factors of mothers and many obstacles to postpartum medication, the application of alternative therapy is becoming more and more widely used clinically,

and TCM has unique advantages in the treatment of postpartum depression, including a variety of prevention and treatment programs combining internal and external treatment such as traditional Chinese medicine, acupuncture and traditional Chinese medicine.

Acupuncture is a unique treatment method of «internal and external treatment» in China, which selects acupuncture points such as Xinyu, Spleen Yu, Guan Yuan, Blood Sea, Zusanli, Sanyin Jiao, Shenmen and Baihui, unclogging paths, supporting the right and dispelling evil, harmonizing yin and yang, and treating postpartum depression has the effect of nourishing blood and nourishing the heart, opening up the mind and awakening the spirit.

Adjustment refers to the use of non-drug methods, such as diet, living environment, emotional and other ways to promote the effect of drugs and the recovery of patients as the ultimate goal of treatment, is an important part of TCM diagnosis and treatment of diseases. «The Golden Mirror of Medicine: Concise Comprehension of Pediatrics in Verse» said:After the woman gave birth, she was weak in blood, weak in spirit, and cowardly, so she was prone to be afraid and trances", Based on this understanding, modern Chinese medicine mostly causes mental denourishment caused by postpartum qi and blood damage, resulting in the occurrence of postpartum depression, so modern doctors pay attention to postpartum depression regulation on the basis of restoring internal organs qi and blood, and pay more attention to the harmony of qi machine to soften the mind. In the treatment of postpartum depression, emotional counseling, music counseling, and tuina depressant relief have all been applied to clinical practice. In postpartum depression, attention is paid to harmonizing qi machines, and emotional adjustment is mostly used to relieve depression by various liver thinning methods; Music channeling is mainly music with soothing rhythm and soft sound quality; Tuina treatment focuses on promoting the movement of qi and blood throughout the body, taking into account the gentle soothing techniques, although the methods are different, but they all use the method of harmonizing the qi machine so that it can nourish the blood and calm the mind.

Traditional Chinese medicine has a long history of understanding of the diagnosis and treatment of postpartum diseases. Postpartum depression predisposes to adverse maternal and infant outcomes and should be taken seriously. The potential benefits and harms of the drug should be weighed in the treatment of traditional Chinese medicine, and the impact on the patient's sleep and lactation and the baby's weight should be considered. There are many TCM treatment programs for postpartum depression, including a variety of prevention and treatment programs combining internal and external treatment such as traditional Chinese medicine, acupuncture and traditional Chinese medicine conditioning, all of which have achieved good clinical efficacy, but there are few research on combination therapy, and it is hoped that drug therapy combined with non-drug treatment regimen can be used in future studies to obtain better compliance and more satisfactory clinical efficacy.

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ANALYSIS OF THE MEDICATION PATTERN OF TRADITIONAL CHINESE MEDICINE FOR POST-STROKE INSOMNIA BASED ON DATA MINING

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Abstract. In this study, China Knowledge, Wanfang, and Wipro were used as data sources to screen the clinical journal literature related to the treatment of post-stroke insomnia with Chinese medicine in the past two decades, to establish a database of post-stroke insomnia prescriptions, and to analyze the frequency of medication frequency analysis, statistical analysis of sex and flavor attribution, analysis of association rules, and systematic clustering analysis of the Chinese medicines that were included in the prescriptions. To explore the prescription and medication rules of TCM for post-stroke insomnia, and to provide reference for standardizing and guiding clinical medication. A total of 165 papers were included, involving 170 prescriptions, 172 Chinese herbal medicines, 5 groups of high-frequency pair combinations, and 6 new prescriptions.

Keywords: Insomnia after stroke; medication patterns; database; Chinese medicine; analysis

Stroke, also known as «cerebrovascular accident» and «stroke» in modern medicine, is characterized by sudden fainting, unconsciousness, numbness of the limbs, hemiplegia, and speechlessness. This disease is characterized by high morbidity, high mortality and high disability [1]. Insomnia is one of the most common complications after stroke, and studies [2] have shown that the percentage of people with different degrees of sleep disorders after stroke has reached 57.3% to 81.3%. Post-stroke insomnia not only seriously affects the quality of life of patients, but also may aggravate the underlying diseases such as hypertension and dyslipidemia, and increase the risk of recurrence of stroke [3], so it is important to improve sleep for the recovery of neurological function after stroke [4]. Traditional Chinese medicine (TCM) has fewer adverse effects and lower drug resistance than Western medicine in the treatment of post-stroke insomnia. The aim of this study is to explore the database of Chinese herbal prescriptions for post-stroke insomnia, analyze their core composition and the pattern of drug combinations, in order to provide reference for the research and development of new drugs for post-stroke insomnia and their clinical application.

Objective

On the basis of data mining, traditional Chinese medicines for the treatment of post-stroke insomnia were analyzed to explore the pattern of their formulae and medications.

Materials and methods

Using the China Knowledge Resources Database (CNKI), Wanfang Data Knowledge Service Platform (Wanfang Data), and Chinese Science and Technology Journal Database (Wipu.com) as data sources, the search terms included «stroke» or «stroke» or «cerebral hemorrhage» or «cerebral infarction», and «insomnia» or «sleep disorder» or «insomnia». cerebral hemorrhage» or «cerebral infarction», and «insomnia» or «sleep disorder» or «insomnia» and «Chinese medicine». «and «Chinese medicine» or «herbal medicine». Randomized controlled trials of Chinese herbal medicines for post-stroke insomnia were searched in the journal literature in the past two decades, and a prescription database for post-stroke insomnia was established, and the Chinese herbal medicines included in the prescriptions were subjected to frequency analysis of medication use, statistical analysis of flavors and tastes, analysis of association rules, and systematic clustering analysis.

Results and discussion

This study finally included 165 articles and 170 prescriptions, involving 172 flavors of traditional Chinese medicine, which were used 1,889 times. The frequency statistics of the 165 prescriptions entered into the database showed that 38 flavors were used more than 20 times, and the top five were: Semen Ziziphi Spinosae (98 times, accounting for 5.19%), Poria (85 times, accounting for 4.50%), Angelica Sinensis (77 times, accounting for 4.08%), Chuanxiong Rhizoma (69 times, accounting for 3.65%), and licorice (65 times, accounting for 3.44%). The results showed that the properties of the 172 Chinese medicines were mainly flat, warm and cold; the flavors were mainly sweet, bitter and pungent; and the meridians were mainly the heart meridian and liver meridian. The analysis of the association pattern of Chinese medicines resulted in five groups of commonly used pair combinations, of which the top two combinations were: Os Draconis-Concha Ostreae; Poria-Semen Ziziphi Spinosae. The most frequently used drug categories were deficiency tonics and tranquilizers.

On the basis of the extraction of high-frequency use of Chinese medicine, systematic cluster analysis can be regrouped into six categories.

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CLINICAL OBSERVATION ON THE TREATMENT OF TEMPOROMANDIBULAR JOINT DISORDERS BY MENTAL-ADJUSTING ACUPUNCTURE METHOD

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Abstract. To evaluate the therapeutic effect of TMD treated by mental-adjusting acupuncture method, 30 patients with TMD were randomly divided into the treatment group and the control group, 15 cases each. The treatment group was treated with the method of tuning the spirit, and the control group was treated with the conventional acupuncture method, mainly observing the change of FPS-R score. After the treatment, all the indexes of both groups were improved, but the degree of improvement of the treatment group was better than that of the control group, and the difference was statistically significant. The difference was statistically significant. It indicated that the method of mental-adjusting method could significantly improve the pain symptoms of TMD patients, and the effective rate was better than that of the conventional acupuncture method.

Keywords: Temporomandibular joint disorders; Mental-adjusting acupuncture method; Clinical observation

Temporomandibular Joint Disorders (TMD) is a general term for a group of common oral and maxillofacial disorders [1], and the most important symptom is pain and limitation of movement in the joint area. According to epidemiologic surveys, the prevalence of this disease ranges from 13% to 26% in developing countries and 18% to 31% in developed countries [2], and it is generally recognized that the etiology of TMD is related to maxillofacial occlusion, psychiatric, psychological, trauma, and other factors [3]. This disease has a long course, is difficult to treat, and is prone to recurrent episodes, so many patients are accompanied by negative emotions. In addition, in recent years, studies have found that emotional problems are one of the important causes of this disease [4]. Acupuncture, as a traditional Chinese medicine treatment method, has few side effects and is highly accepted by patients, so this observation focuses on mental-adjusting acupuncture method to treat TMD.

Objective

To observe the improvement of pain symptoms in patients with TMD treated with the mental-adjusting acupuncture method.

Materials and Methods

Thirty patients who visited the First Hospital Affiliated to Heilongjiang University of Traditional Chinese Medicine from January to May 2022 were randomly divided into the mental-adjusting group (Treatment group) and the conventional group (Control group) according to the order of their visits to the hospital, with 15 patients in each group. In the control group, conventional acupuncture was used by selecting Xia Guan, Guan Gong, Jia Che and bilateral He Gu for treatment, while in the treatment group, on the basis of the conventional treatment, some acupuncture points that can mediate the mind like bilateral Shen Men, Nei Guan and Bai Hui were added for acupuncture, and the treatment of each group was conducted once a day for 40 minutes each time for 6 times for one course of treatment, and a total of 2 courses of treatment. The efficacy of the 2 groups was evaluated by the visual analog scale scores of each group before and after treatment, and the efficacy of the two groups was evaluated according to the scores of each group. Patients whose pain disappeared or whose FPS-R scores were relieved by ≥90% were considered cured, those whose FPS-R scores changed between 61% and 90% were considered

improved, those whose FPS-R scores changed between 20% and 60% were considered effective and those whose FPS-R scores were less than 20% were considered ineffective, and the effective rate was calculated by adding the number of cured, improved and effective patients and dividing it by the total number of patients.

Results and Discussion

Three patients were dislodged at the end, and the statistics showed that there was no difference(P>0.05) between the two groups in age (Year,TG:45.46±3.84,CG:44.71±3.17), gender (F/M ,TG:6/7,CG:6/8) and the FPS-R scores (Sc ore,TG:5.85±0.69,CG:5.71±0.83) ,and there was a significant remission of FPS-R scores between the two groups of patients after treatment (Score ,TG:1.62±1.04,CG:3.07±1.59), which was also statistically significant in the comparison of the two groups (P<0.01). The effectiveness was 100% in the treatment group and 85.71% in the control group, which after the chi-square test (x2=8.40, P<0.05) indicated variability between the two groups.

«Huang Di Nei Jing» mentioned: «All pain and itchy sores belong to the heart», indicating that the generation of pain is associated with the heart and mind, modern people live in a fast-paced, stressful life, and psychological mood fluctuations inevitably lead to the generation of pain diseases similar to TMD, coupled with the fact that previous treatment of such diseases usually takes a long time, the symptoms inevitably recur, aggravating the negative mood. By using these mental-adjusting point can accelerate the dissolution of negative emotions, so a better clinical effect has been achieved.

Therefore, we concluded that the mental-adjusting acupuncture method was superior to the conventional acupuncture method in terms of FPS-R scores as well as overall effectiveness.

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RESEARCH PROGRESS OF ACUPUNCTURE TREATMENT OF POST-STROKE COGNITIVE IMPAIRMENT

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Abstract. This paper describes the efficacy of various acupuncture therapy in the treatment of post-stroke cognitive impairment, and summarizes the shortcomings of the literature, in order to provide ideas and reference for follow-up research.

Keywords: Acupuncture; Post-stroke cognitive impairment; The research progress;Scalp acupuncture;mind regulation

Post-stroke cognitive impairment(PSCI) is a disease with cognitive impairment that occurs and persists for 6 months. Cognitive impairment will reduce the quality of life of patients, and the survival time will also be seriously affected. It has become the focus of international stroke research and the focus of clinical intervention. Acupuncture, as a non-drug therapy, can reduce drug side effects in patients with cognitive impairment after stroke, and acupuncture has a certain effect on improving cognitive function in patients with PSCI. The author read the relevant literature on acupuncture treatment of patients with PSCI, and described as follows.

1.Scalp acupuncture

The acupoints of the head are closely related to the operation of the meridians and collaterals. The disease position of PSCI patients is in the brain, and the head acupoints are the parts of meridians and collaterals. Acupuncture at the acupoints of the head can regulate the movement of meridians and collaterals, which can play the role of proximal treatment of acupoints and play a certain role

in regulating local brain injury.Zhan Jie[1] were treated with acupuncture at Baihui and Shenting acupoints on the basis of the control group. After 4 weeks of treatment, the scores of mini mental state examination (MMSE) and Montreal cognitive assessment scale (MoCA) were significantly improved, and the degree of improvement was better than that of the control group.

At present, the development of scalp acupuncture therapy, in addition to the basic theory of traditional Chinese medicine of head acupoints, combined with the functional localization theory of cerebral cortex as the theoretical basis for the location of acupoints, this scalp acupuncture therapy holds that acupuncture in the treatment area of the head can stimulate the corresponding cerebral cortex and exert its therapeutic effect. Xie Dongling[2] treated 80 patients with PSCI, adding scalp acupuncture therapy on the basis of routine treatment and rehabilitation training in the department of neurology. The middle frontal line, parietal midline, anterior temporal line (diseased side) and posterior temporal line (diseased side) were taken. After 3 months of treatment, the P300 examination and neuropsychological scale test showed that the improvement of the scalp acupuncture group was significantly better than that of the control group [2].

2. Electroacupuncture

Instead of manual acupuncture, electroacupuncture can not only stimulate acupuncture continuously, but also make the amount of stimulation quantifiable, which can better control the variables in the experiment. Feng Qi [3] used electroacupuncture at Baihui and Zusanli points in rats with vascular cognitive impairment and found that it may improve the learning and memory ability of rats by reducing the contents of TNF- α, IL-6 and IL-1 β in the cerebral cortex of VCI rats.

3. Other acupuncture methods

Academician Shi Xuemin pointed out that the pathogenesis of PSCI is «emptiness of the brain and failure of the mind», and the disease is located in the brain.After treating PSCI patients with Xingnao Kaiqiao acupuncture combined with repetitive transcranial magnetic stimulation for 4 weeks, Danzhaojun found that Xingnao Kaiqiao acupuncture combined with repeated transcranial magnetic stimulation could significantly improve the MMSE and MoCA scores of the patients, which was better than that of repeated transcranial magnetic stimulation alone [4].

Discussion

In the next step, we should focus on the mechanism of the development of the disease, further carry out animal trials, provide clinical basis, early detection of the disease, early intervention, slow down the process of cognitive decline and improve the quality of life.

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THE PATHOGENESIS OF LIVER FIBROSIS AND RELATED TRADITIONAL CHINESE MEDICINE SCREENING WERE EXPLORED THROUGH MITOCHONDRIA

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Abstract. Human organ fibrosis is characteristic of the progression of chronic inflammatory diseases, accounting for 45% of global all-cause mortality [1].Liver fibrosis is a key step in the development of various chronic liver diseases to cirrhosis, which seriously affects the early treatment and prognosis of patients with chronic liver disease [2].Early liver fibrosis can repair acute liver damage, but persistent chronic liver damage will cause liver tissue cells to be damaged and produce dysfunction .Without intervention after liver fibrosis, it may further develop into cirrhosis and will lead to many serious complications, including varicose veins, bleeding, ascites, spontaneous bacterial peritonitis, hepatic encephalopathy, Liver cancer and even death.

Keywords: liver fibrosis, bioinformatics

At present, in clinical terms, modern medicine does not have clear drugs for early intervention in liver fibrosis, while traditional Chinese medicine has the advantages of multi-component, multi-target and small side effects. According to previous studies, ginsenoside Rh2, a component in ginseng, can reduce liver fibrosis by improving the composition of intestinal microorganisms and regulating autophagy; Salviin can attenuate hepatic stellate cell activation by regulating ferrozois; In vivo and in vitro experimental studies, the traditional Chinese medicine compound Guizhi Zhuo Ling Pill inhibited TGF-β1/Smad2/3 and activated IFN-γ/Smad7 signaling pathway, alleviating liver fibrosis. However, there are few studies on the screening of natural active ingredients from bioinformatics.

Objective

This study will further explore the mechanism of reversing liver fibrosis through mitochondria at the genetic level and screen related traditional Chinese medicines, in order to provide more prevention and treatment ideas for clinical practice.

Materials and methods

Through the GEO database,Liver fibrosis-related datasets were searched with «hepatic fibrosis» as the keyword, the GSE162694 dataset was selected, which was all human samples, including 112 liver fibrosis samples and 31 normal samples. The dataset GSE162694 dataset was defined and grouped, and the GEO online analysis tool GEO2R (https:// www.ncbi.nlm.nih.gov/geo/geo2r/) was used for analysis, and the differential genes were screened with |log2FC|≥0.5 and P < 0.05 as the criteria. Mitocarta3.0 database (https://www.broadinstitute.org/mitocarta/) was searched to download mitochondrial function regulation related genes.The intersection analysis of mitochondria-related genes and liver fibrosis genes was performed to obtain common genes between mitochondria and liver fibrosis. Using the Connectivity map association map CMap clue platform (https://clue.io/), the differential genes and the mitochondrial associated genes collected were intersected to obtain common key genes, and the key genes were divided into up-regulated genes and down-regulated genes, and uploaded to the CMap clue platform, after calculation, the natural active ingredients that reversed liver fibrosis through mitochondria were obtained, and the component compounds were sorted by fraction after sorting.

All eligible natural active ingredients were searched through the Herb database (http://herb.ac.cn/) to obtain TCM that reverses liver fibrosis through mitochondria.

Results and discussion

After screening the GSE162694 dataset with |log2FC|≥0.5 and P < 0.05 as the criteria, 4046 differential genes were obtained, including 3419 up-regulated differential genes and 627 down-regulated differential genes. The search of Mitocarta3.0 database collected 1136 mitochondria-related genes, and 118 intersecting genes were shared with the differential genes analyzed by the liver fibrosis dataset GSE162694, which were genes that reversed liver fibrosis through mitochondria.

The intersection genes were divided into 109 upregulated genes and 9 downregulated genes, and the upregulated genes and downregulated genes were entered into the CMap clue platform, and the components were screened through the herb database to screen traditional Chinese medicines that reversed liver fibrosis through mitochondria.

The results showed that protomarine onion A, Chinese toadoxin, tubular dartoxine, purple rivet, anthracene, trichocyanin, burdock glycogen, ergometrin, kaempamine and daidzein were the natural active ingredients most likely to reverse liver fibrosis through mitochondria. These ingredients are mainly derived from 60 flavors of Chinese medicine such as goji berries, ergoth horns, and swirling flowers.

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STUDY ON ANTITUSSIVE AND EXPECTORANT EFFECTS OF QIANGLI LOQUAT DEW AND ITS MECHANISM OF ANTI-INFLAMMATORY AND OXIDATIVE STRESS

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Abstract. Cough, as the most common reason for patients to seek medical care, accounts for about one third of the specialist clinics. It is often accompanied by other physical and psychological complications, which seriously damages the interpersonal relationship, working status, social life and overall quality of life of patients, and also brings huge burdens to patients and health care system. Qiangli loquat dew has remarkable clinical effect as a cough medicine. Through the comparison and efficacy verification of Qiangli loquat dew and other proprietary Chinese medicines, it provides support for its clinical application.

Keywords: strong loquat dew ; haze ; relieving cough; expectorant

The main and only symptom of chronic cough is cough, which usually lasts for more than 8 weeks, even bothers patients for months or years, and there is no obvious abnormality in X-ray examination[1]. In China, antitussive Cold medicine accounted for 76.2% of the retail pharmacy market, accounting for 51.62 billion yuan[2]. As the most common reason for patients to seek medical care, cough accounts for more than one third of specialized clinics. It is often accompanied by other physical and psychological complications, which seriously damages patients' interpersonal relationships, working conditions, social life and overall quality of life, and also brings huge burden to patients and medical care system.

Qiangli Loquat Dew has been listed in Volume II of the Drug Standards of the Ministry of Health of the People's Republic of China for Formulated Chinese Medicines. The anti-inflammatory and immune regulatory mechanisms of this drug are particularly complex, which needs further research.

Objective

To investigate the pharmacodynamics and airway inflammation of the guinea pig model of cough induced by smog and smoke, and its effect on the secretion function of the respiratory tract of mice, to provide experimental data support for the in-depth study of the mechanism of action of the strong loquat syrup and its clinical application.

Materials and methods

The 70 Hartley guinea pigs were randomly divided into 7 groups:blank group, model group, Suhuang Zhike Capsules group, Feilike mixture group, Strong loquat syrup low-dose group, Strong loquat syrup medium-dose group, and Strong loquat syrup high-dose group. Except for the blank group, the other groups placed guinea pigs in a haze particulate matter inhalation box for 3 hours a day for 27 days. On the 1st and 7th days, each guinea pig was given subcutaneous injection of a total of 0.2ml of sensitization solution on both thighs. The sensitization solution contains 20μg OVA and 20mg AL(OH)3, on the 14th and 21st days, ultrasonic atomization was used to inhale 5% OVA, once a day for 40 minutes each time, until the guinea pigs developed rapid breathing, coughing and standing instability, etc. The performance indicates that the model was built successfully. In the blank group, normal saline was used instead of the sensitizing solution, and the injection site and dose were the same as those in the other groups, and normal saline was used instead of OVA for aerosol challenge. After the model was successfully established, drug intervention was given.The general state of the guinea pigs was observed, the number of coughs was recorded, the pathological changes of the lung tissue and trachea were observed by HE staining, and the levels of IL-8, TNF-α, SP, and Muc5AC in the lung tissue of the guinea pigs were detected by ELISA. content, and analyze its antitussive effect and mechanism.

The excretion of phenol red in mouse trachea was used to study its expectorant effect. 60 SPF-

grade male healthy mice were randomly divided into 6 groups: model group, Suhuang Zhike capsule group, Feilike mixture group, Strong loquat syrup low-dose group, Strong loquat syrup medium-dose group, and Strong loquat syrup high-dose group. These guinea pigs were administered with 1% phenol red solution by intraperitoneal injection for 7 days, the OD value was measured by spectrophotometer, and the concentration of phenol red was calculated.

Results and discussion

Strong loquat syrup can improve the pathological damage of guinea pigs model with chronic cough and reduce cough symptoms;Strong loquat syrup may reduce the levels of IL-8, TNF-α, SP and inhibit the expression of Muc5AC protein, thereby improving airway inflammation, reducing mucus hypersecretion, and achieving the purpose of treating cough;Strong loquat syrup can enhance the secretion function of the respiratory tract and has an expectorant effect.

In summary, Strong loquat syrup has better expectorant, antiasthmatic, antitussive, anti-inflammatory and anti-oxidative stress effects than Suhuang Zhike Capsule and Feilike Mixture. It is a promising Chinese medicine preparation with good clinical application value.

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RESEARCH PROGRESS IN THE INTERVENTION OF TRADITIONAL CHINESE MEDICINE ON THE FUNCTION OF IL-21 IN PSORIASIS

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Abstract. Psoriasis is one of the most important diseases in dermatology. Research has found that IL-21 (interleukin 21) participates in the pathogenesis of psoriasis by promoting T cell proliferation, inducing differentiation of Th17 and enhancing the functionality of Th17 [1], some Traditional Chinese Medicines and active ingredient of Traditional Chinese Medicines regulate the function of IL-21. Therefore, this review aims to summarize the relationship between IL-21 and psoriasis, and to show the intervention of Traditional Chinese Medicine on IL-21 function and its signal pathway, and to explore the pathogenesis and therapeutic effect of IL-21 in psoriasis, in order to provide potential diagnostic, medication, and treatment strategies for clinical practice.

Keywords: Psoriasis; IL-21; Traditional Chinese Medicine; Research Progress; Intervention

1 Psoriasis

Psoriasis is a common and easily relapsed autoimmune disease, as well as a chronic inflammatory skin disease. It has unclear pathogenesis and the relationship with endothelial cells, keratinocytes and immune cells (such as T lymphocytes and macrophages). Because it has a high incidence rate and multiple degrees of itching, the disease process has lasted for a long time, and the troubled time forpsoriasisis longer than that of most other skin diseases. After phased treatment, the psoriasis is easy to aggravate and relapse, focusing on making Young adult difficult to get rid of, It is mainly characterized by red patches, physical damage higher than the skin, surrounding wetting, stimulating the epidermis to produce scales and other symptoms of inflammation.It is a common chronic immune disease with complex Genetic structure, mainly affecting joints and skin .Therefore, it greatly affects the skin comfort and mental health of patients. So it is one of the diseases focused on dermatology at present.

2 IL-21

IL-21 was identified as a multifunctional cytokine and mainly produced by follicular T helper cell (Tfh cells), T helper cell 17 (Th17) and natural killer cell (NK). In the past decade, researchers have conducted in-depth research on the mechanism by which IL-21 affects the immune system. Numerous studies have shown that IL-21 plays a crucial role in the development of autoimmune diseases and has multiple biological effects.IL-21 is a multifunctional immune regulatory factor that regulates and activates mononuclear macrophages, NK cells, as well as T and B cells . It can participate in the immunity of the body and regulate the response of B lymphocytes antibody[9]. In fact, more research is needed to uncover potential mechanisms.

3 IL-21 and psoriasis

Studies have found that psoriasis is related to

the high expression of IL-21 . The concentration of IL-21 in patient's skin lesions and in patient's serum significantly increases.There are a lot of cytokines in skin lesions that can induce the initial T cells to produce IL-21 . After blocking IL-21, epidermal hyperplasia and skin inflammation [1] , the concentration of IL-21 in patient's serum can assist in evaluating the development of psoriasis. This provides some important references for the immune treatment of psoriasis in the future .

4 Intervention of Traditional Chinese Medicine on IL-21 Function in Psoriasis

4.1 Tripterygium wilfordii polyglycosides

Tripterygium wilfordii polyglycosides can reduce the number of cytokines and inflammatory reactions in various parts, and it can maintain the immune balance of the body . Tripterygium wilfordii polyglycosides can reduce the level of IL-21 and transforming growth factor significantly and increase the concentration of IL-21, maintain a balance between IL-21 and TGF- β 1 .So it can provide new medical insights for the diagnosis and treatment of psoriasis in clinical practice.

4.2 Paeonol

Guo Lin et al. shows that Paeonol can improve a variety of immune indicators significantly , which is inseparable from the anti-inflammatory effect and immune effect of paeonol. Paeonol injection also can enhance the immune function for immune cells significantly .

4.3 Shikonin

Wang Xun found that Shikonin may be related to inhibiting IL-21. Shikonin can reduce the area of skin lesionsand and severity of erythema in psoriasis and inhibit the development of psoriasis [25], which helps to treat psoriasis.

5 Conclusion and Prospect

In many experiments, it has been found that IL-21 plays a central role in the pathogenesis of psoriasis . To a certain extent,the intervention of various Traditional Chinese Medicines on the function of IL-21 in psoriasis can reduce the incidence rate of psoriasis,and prevent the occurrence of psoriasis.IL-21 plays an important role in many diseases, such as cancer, autoimmune diseases and infectious diseases. However, the specific mechanism is still unclear when the IL-21 partake the process of other diseases,so we need to conduct a further and intensive study.

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THE EFFECT OF VESTIBULAR FUNCTION TRAINING DURATION ON BALANCE AND MOTOR FUNCTION IN HEALTHY RATS

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Abstract. The vestibular system is an important part of the body's homeostatic system, which has special receptors capable of receiving appropriate stimuli ,The vestibular system provides information about the strength of gravity to the visual system to form sensory integration. The Vestibular system cooperates with the proprioception system to make balanced movement. The effect of vestibular training is to increase motor balance and ability. Different training cycles and durations produce varying degrees of stimulation to the vestibule. This article verifies the effects of different vestibular training durations on balance and motor function in rats, in order to find suitable training therapy doses.

Keywords: vestibular training, balancing function, motor function

The Vestibular system is always performing tasks, In other words, the Vestibular system is closely related to the operation of other systems. When staring, one needs to have a stable head and neck; When tracking a moving target, it is necessary to move the head and neck steadily in order to capture a clear image. The vestibular system provides information about the strength of gravity to the visual system[1], which is called «spatial visual perception». This is the sensory integration

of the vestibular system and the visual system. The information of vestibular Sense of balance sense and proprioception is integrated to form meaningful body perception. vestibular training can improve symptoms of imbalance, falls, fear of falling, dizziness, vertigo, motion sensitivity and secondary symptoms such as nausea and anxiety[2].

Objective

Through experiments, more suitable training duration and amount were found in order to find the optimal training amount for improving balance and athletic ability.

Materials and methods

The rats were divided into blank, 10min, 15min and 20min groups of 6 rats each by random number table method. Conduct behavioral assessments on the 3rd, 5th, and 7th days after the start of training. Place the rat in the experimental environment for 20 minutes and then adapt to the open field environment for 30 minutes, After completed the balance beam timing test assessment then performed the open field experiment was for 3 min. Vestibular training: self-made vestibular training device, simulating a children's slide, with adjustable slope and a length of 1.3m, Place the rat in a fixed device, without applying external force, and rely on the rat's own gravity to slide uniformly, with a buffer pad placed at the bottom. Trapezoidal Balance beam test: the Balance beam is 2m long, narrow at the top and wide at the bottom. Observe the passage time of rats, balance beam adaptability training should be carried out for 2 days before the training, so that the rats can pass through the narrow wooden strip without slipping. Open field experiment: Before training, adapt to the open field environment for 30 minutes. Place the trained rats in the open field and observe their movement distance in the open field.

Results and discussion

1.Comparison of test results of Balance beam in each group

Before training (0d), there was no statistically significant difference between each group and the blank group (P>0.05). There was a statistically significant difference of P<0.05 on the 3rd day, and a very significant difference of P<0.01 on the 5th and 7th days.

	0d	3d	5d	7d
sham	21.30±6.90	19.05±6.67	16.13±3.53	12.40±1.20
10min	12.48±2.64	9.41±2.26	8.72±0.16	8.16±1.05
15min	12.27±1.11	8.73±0.81	8.67±0.58	7.76±0.82
20min	11.95±5.64	9.64±4.67	9.61±0.97	7.67±1.87
P	0.103	0.046	0.001	0.005

2. Open field movement distance

There was no statistically significant difference, P<0.05 on the 3rd day showed statistically significant differences, and P<0.01 on the 5th and 7th days showed extremely significant statistical differences

	3d	5d	7d
sham	186.58±80.11	387.80±119.66	186.62±31.58
10min	822.90±161.84	685.43±83.59	842.05±142.35
15min	669.90±63.48	942.90±28.28	1060.79±385.98
20min	1294.22±178.80	1012.41±159.21	1325.03±344.34
P	0.000	0.000	0.003

Conclusion

1. Vestibular training can improve the balance function of rats, and rats can pass through the Balance beam faster;2. Vestibular training can improve the motor function of rats, making them more active,and faster in the open field;3. There is a significant difference between the training group and the blank group. On the seventh day of training, there is a significant difference between the two groups after 20 minutes.

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STUDY ON THE MECHANISM AND APPLICATION OF TRADITIONAL CHINESE MEDICINE ENTEROTHERAPY IN THE TREATMENT OF CHRONIC KIDNEY DISEASE

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Abstract. This paper describes the theoretical basis of traditional Chinese medicine (TCM) for the treatment of chronic kidney disease (CKD) with Chinese herbal enterotherapy, and analyzes and demonstrates the mechanism and clinical efficacy of a variety of TCM enterotherapy for the treatment of CKD. It is found that Chinese herbal enterotherapy can improve intestinal flora dysbiosis, reduce uremic toxin accumulation and improve microinflammatory state.

Keywords: herbal enterotherapy; chronic kidney disease; review

Chronic Kidney Disease (CKD) is a chronic progressive disease with multi-system complications occurring as the disease progresses and eventually develops into End Stage Renal Disease (ESRD), which requires reliance on renal replacement therapy. Previous studies have confirmed that ancestral medicine has achieved remarkable results in early intervention in the progression of CKD, improving clinical symptoms, correcting abnormal relevant laboratory indicators, and delaying the deterioration of the disease [1].

Theoretical basis of traditional Chinese medicine in the treatment of chronic kidney disease by Chinese medicine enterotherapy.

CKD can be categorized as «edema», «deficiency labor», «kidney labor» and «lumbago» in Chinese medicine. The pathogenesis of this disease is complex, but mostly belongs to the underlying deficiency. Traditional Chinese medicine intestinal therapy has a long history, which was first recorded in Zhang Zhongjing's «Treatise on Typhoid Miscellaneous Diseases» as «honey decoction guide method» and «pig bile guide method». Intestinal therapy is one of the common methods of treating internal diseases externally, in which medicines are retained in the intestines through the anus and absorbed by the intestines to reach the place of disease and produce therapeutic effects.

The Su Wen - five Tibetan theory of the physiological function of the large intestine clearly pointed out that the conduction of dross, discharge of metabolic waste, said the large intestine, «this is subject to the turbid gas of the five organs, the name of the House of Transfusion, which can not be retained for a long time, the loss of diarrhea, too. CKD dampness and turbidity within the viscera, viscera gas is not a situation, often through the viscera leakage method, from the intestinal detoxification of turbidity, ascending Qing Yang, drop turbid yin, restoring the lift function of the spleen and stomach qi, and then regulate the human body qi and blood, yin and yang, the evil to go to the positive security.

Mechanism and application of Chinese herbal enterotherapy in the treatment of chronic kidney disease

Reduce the accumulation of uremic toxins

Due to dietary restriction and gastrointestinal dysfunction, the microbial metabolic shift pattern of CKD is mainly protein hydrolysis and fermentation, and the end products of its fermentation are indole phenol sulfate (IS) and p-cresyl sulfate (PCS).Concentrations of IS and PCS increase with the decline of renal function, and they are easily combined with albumin, and hemodialysis cannot remove them effectively removed by hemodialysis. These toxins can cause renal tubular cell damage, coagulation dysfunction, endothelial function impairment, cardiac fibrosis and insulin resistance . Wang[2] and others observed that the oral administration of Yi Kidney Drainage Formula combined with Chinese medicine retention enema treatment for patients with CKD stage 3-4, the serum levels of IS and endotoxin in the patients were significantly reduced after the treatment, which indicated that this treatment could reduce endotoxemia and slow down the progress of CKD.

Improvement of the microinflammatory state

A mild, slow and persistent immune-inflammatory response centered on activation of the monocyte macrophage system, caused by infection by non-pathogenic microorganisms, is prevalent in patients with CKD. Tumor necrosis factor-α (TNF-α), interleukin-1 (IL-1), interleukin-6 (,IL-6), and C-reactive protein (CRP) are the major inflammatory factors in the body.The NF-κB transcription factor, first identified in B-lymphocyte nuclei, is involved in the progression of renal inflammation and injury, and can elicit metabolic reorganization of the body's immune cells, triggering the secretion of inflammatory mediators, and activated NF-κB can control the expression of more than 500 genes, and when the expression is dysregulated, it can be harmful to the human

body, leading to irreversible tissue damage. Liu [3] and others used the treatment protocol of rectal drip of Chinese herbal enema solution and found that the levels of TNF-α, IL-1, IL-6, and CRP were significantly reduced after the administration of the drug, which proved that the Chinese herbal enema solution was effective in improving the renal function indexes and correcting the microinflammatory state in the body.

Conclusion

TCM enterotherapy fully demonstrates the characteristics of TCM and plays a unique role in actively participating in the intervention and adjuvant treatment of CKD, which not only can effectively improve the clinical symptoms of patients, but also delay the progression to ESRD as much as possible, which is an effective way to treat CKD.

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INNOVATIVE DIAGNOSTIC AND THERAPEUTIC METHODS IN RUSSIAN AND CHINESE TRADITIONAL MEDICINE

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Abstract Russian traditional medicine includes both local and imported traditional medicine treatments, such as acupuncture and moxibustion in Chinese medicine, traditional Chinese medicine and Tibetan medicine. Chinese medicine is a vast system of medicine in the same lineage as Chinese thought and culture, acupuncture therapy is the most used Chinese medicine therapy in the world. This paper takes the development of acupuncture as a starting point to discuss the innovative diagnostic and therapeutic methods of Russian and Chinese traditional medicine.

Keywords: Russia, China, Traditional Medicine, Innovative Diagnostic and Therapeutic Methods, Acupuncture

Russian traditional medicine is divided into two main categories: first, local traditional medicine treatments; and second, imported traditional medicine treatments, such as Chinese acupuncture, Chinese medicine and Tibetan medicine treatments

Chinese medicine is a vast medical system inherited from Chinese thought and culture,acupuncture is the most widely used TCM therapy in the world .

Objective

To explore innovative diagnostic and therapeutic methods in Russian and Chinese traditional medicine using the development of acupuncture as an entry point.

Materials and Methods

We reviewed the relevant literature on the Internet, and took the hospital affiliated to Heilongjiang University of Traditional Chinese Medicine as the actual investigation site to study the innovative diagnostic and therapeutic methods of Russian and Chinese traditional medicine.

Results and Discussion

Acupoint therapeutic instruments have been widely used among the Russian population in recent years. At present, Russian acupuncturists often apply three main types of acupuncture: body acupuncture, ear acupuncture, and hand acupuncture .

«Korean electro-acupuncture instrument» is now in the clinic has been widely used in china [1]. The «auriculo-vagus nerve stimulation device» has achieved good clinical efficacy in the treatment of epilepsy [2], depression [3], and insomnia [4], which can be used in the home. In the current research of Chinese medicine diagnostics, the data mining theory of computer technology is utilized to mine and integrate the four clinical diagnostic information of Chinese medicine.

Du Yuanhao's team [5-6] studied the dominant diseases of acupuncture in China, and by summarizing the diseases with more than three Meta-analysis evaluations, acupuncture has a therapeutic advantage for the following

five categories of diseases (in order of efficacy): painful diseases, neurological dysfunctional diseases, psycho-cognitive and affective disorders, immunoendocrine dysfunctional diseases, and some internal organ diseases.

Unlike the common clinical research in China, Russian reflexology disease research is more refined, but the concept of evidence-based is weaker.

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CLINICAL OBSERVATION OF ELECTRO-NAPE ACUPUNCTURE IN THE TREATMENT OF HEMIFACIAL SPASM

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Abstract. Background : Nowadays, the etiology and mechanism of hemifacial spasm are still unclear, and the treatment methods are still not systematic. Therefore, facial spasm is still a clinically refractory and refractory disease. As a traditional Chinese medicine treatment method, acupuncture has the advantages of safety and effectiveness in the treatment of hemifacial spasm, but it still has the current situation of long treatment course and unsystematic acupuncture treatment methods, which cannot be ignored. Objective : This article will observe the clinical effect of electro-nape acupuncture in the treatment of hemifacial spasm, and further provide a more effective acupuncture method for the treatment of hemifacial spasm.

Keywords: hemifacial Spasm; acupuncture; electro-nape acupuncture; rarefaction wave; clinical observation

Hemifacial Spasm (HFS) is a kind of peripheral nerve disease, which is characterized by paroxysmal and irregular twitching of unilateral or bilateral facial muscles. Western medicine mostly uses drug injection, microvascular surgery and so on. Although it has the advantages of rapid onset and small pain, the problems of short duration of treatment and many adverse reactions emerge in endlessly [1]. Acupuncture treatment of facial spasm has the advantages of excellent therapeutic effect, high cost performance, no side effects and so on [2]. 'Gao 's nape acupuncture ' is a treatment method first created by Professor Gao Weibin. Nowadays, this method is widely used in brain nerve diseases, cerebrovascular diseases, spinal cord diseases and other fields, with remarkable curative effect [3]. The nape is an important channel for nerve conduction and blood circulation. As the main acupoints of Gao 's nape acupuncture, «Fengchi»(GB20) and «Gongxue» are located in the posterior nape. Electroacupuncture can promote the expression of NGF and the regeneration of vascular endothelium. The density wave can increase the content of neurotrophic factor-3(NT-3) [4]. Therefore, Gao 's nape has certain theoretical support for the treatment of hemifacial spasm.

Objective

To observe the clinical effect of electro-nape acupuncture in the treatment of facial spasm.

Materials and methods

The clinical data of 60 patients with hemifacial spasm admitted to the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine from January 2022 to March 2023 were selected. The patients were divided into control

group (30 cases) and treatment group (30 cases) according to the random number table method. There was no significant difference in general data between the two groups (P > 0.05), which was comparable. The control group was given routine acupuncture treatment, and the acupoints were selected using the «acupuncture therapy» of «facial paralysis»in the «13th five year plan»general high ereducationplanningtextbook:»Cuanzhu»(BL2), »Fengchi»(GB20),»Fengfu»(DU16),»Taichong»(LR3), healthy side «Hegub»(L14). On the basis of the control group, the treatment group added the new acupoint»Gongxue» supply acupoint created by Professor Gao Weibin. Operation : The patient was in the sitting position or lateral position, and the skin was routinely disinfected with a 0.30 × 40mm Andy filiform needle. After acupuncture, the Great Wall kwd-808I electro-acupuncture instrument was used. After the acupuncture of the wind pool and the blood supply, the electroacupuncture was performed up and down respectively, and the wave was sparse (1.2Hz). The intensity was based on the patient 's tolerance. After 3 weeks of treatment, the facial muscle spasm intensity classification, facial muscle spasm frequency classification and overall efficacy were observed and compared between the two groups before and after treatment.

Results and discussion

Compared with the control group, the intensity and frequency of hemifacial spasm in the treatment group were significantly improved after treatment, and the difference was statistically significant (P < 0.05). The total effective rate of the control group was 76.8 %, and the total effective rate of the treatment group was 96.6 %. The total effective rate of the treatment group was higher than that of the control group, and the difference was statistically significant (P < 0.05). Conclusion : Electro-nape acupuncture can improve the clinical symptoms of patients with hemifacial spasm. The frequency and intensity of facial spasm in patients decreased significantly, which was worthy of promotion.

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CLINICAL EFFECT OF THUMBTACK NEEDLE COMBINED WITH WESTERN MEDICINE IN THE TREATMENT OF TINNITUS

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Abstract. In recent years, tinnitus has become one of the refractory diseases in the department of ophthalmology and otorhinolaryngology all over the world. At present, there is still no specific drug and treatment method to make tinnitus disappear, and the treatment mechanism is not clear. As a traditional Chinese medicine acupuncture method, thumbtack needle has the advantages of safety, high efficiency, light pain, simple operation and prolonging the time of acupuncture effect. This paper will explore a new traditional Chinese medicine treatment of tinnitus by observing the clinical effect of thumbtack needle in the treatment of tinnitus.

Keywords: acupuncture; thumbtack needle; tinnitus; clinical observation; intradermal needle

Tinnitus refers to the abnormal sound perception of patients without external sound stimulation, which will seriously affect the quality of life of patients [1]. At present, the treatment of tinnitus in Western medicine includes drug therapy, hyperbaric oxygen therapy, etc., and there are adverse reactions such as dizziness, nausea, vomiting, and hypertension. Acupuncture has a good effect in the treatment of tinnitus and no adverse reactions [2]. Thumbtack needle, also known as intradermal needle, is an extension of traditional Chinese acupuncture. It can enable patients to obtain a sense of needle by appropriate pressing to reduce the number of medical visits. In modern society, it is a therapeutic

acupuncture method that improves efficacy and reduces costs. It will provide new treatment methods for tinnitus patients [3].

Objective

To observe the clinical effect of thumb-tag needle combined with western medicine in the treatment of tinnitus.

Materials and methods

From May 2022 to January 2023, 60 patients admitted to the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine were randomly divided into two groups, 30 cases in the observation group and 30 cases in the treatment group. There was no significant difference in general data between the two groups (P > 0.05), which was comparable.

The observation group was treated with Mecobalamin, and the patients were injected with Mecobalamin Injection (H20044740) 0.5 mg, once a day. On the basis of the observation group, the treatment group increased the treatment of thumbtack needle, and the acupoints were selected using the acupuncture therapy of ' tinnitus and deafness ' in the ' 13th Five-Year ' general higher education planning textbook : ' Tinggong ' (SI19), ' Tinghui ' (GB2), ' Yifeng ' (SJ17). Take 0.22 × 0.5 mm Huatuo brand disposable sterile needle, routine disinfection of the skin, paste on the surface of the acupoint, ask the patient to press moderately, the intensity is based on the patient 's tolerance. After 5 weeks of treatment, the THI scale index and PSQI score of the two groups before and after treatment were observed and compared.

Results and discussion

PSQI score and THI scale index showed that the curative effect of the treatment group was better than that of the observation group, and the difference was statistically significant (P < 0.05). Conclusion : Both thumb-tack needle and mecobalamin injection can improve the tinnitus symptoms of patients. The effect of thumb-tack needle combined with mecobalamin injection in the treatment of tinnitus is better than that of simple medication, and its therapeutic effect is more excellent. Therefore, thumb-tack needle alone can improve the symptoms of tinnitus.

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CLINICAL OBSERVATION OF THUMBTACK NEEDLE COMBINED WITH ELECTROACUPUNCTURE IN THE TREATMENT OF INSOMNIA

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Abstract. In modern society, with the rapid pace of life and the increasing pressure of work, insomnia has gradually become one of the diseases of common concern to the people of the world. Traditional Chinese medicine has a long history of treating insomnia, and its therapeutic effect is superior. Compared with western medicine, it is more safe. Therefore, this paper will observe the clinical efficacy of acupuncture combined with electroacupuncture in the treatment of insomnia, and provide a new method for the treatment of insomnia in traditional Chinese medicine.

Keywords: acupuncture; thumbtack needle; electroacupuncture; insomnia; clinical observation

Insomnia, first seen in the ' Neijing ', is called ' insomnia ', ' eyes do not sleep ' and so on in traditional Chinese medicine. Its etiology and pathogenesis are complex and diverse. Nowadays, it is mainly considered to be caused by improper diet, feeling external evil, emotional disorders and body deficiency. Western medicine defines insomnia as a subjective experience that is not satisfied with sleep

time and / or quality even if you have the right sleep opportunities and sleep environment, and affects the social function of the day. In 2017, the ' Chinese Adult Loss Diagnosis and Treatment Guide ' pointed out 5 ways to treat insomnia : psychotherapy, drug therapy, physical therapy, and traditional Chinese medicine treatment [1]. Western medicine is often treated with drugs. Although it has a rapid onset, it has adverse reactions such as strong dependence [2]. As a traditional Chinese medicine treatment method, acupuncture has the advantages of simple operation, no side effects, and simultaneous treatment of specimens. It can also circulate meridians and collaterals, communicate heart and kidney, thereby alleviating insomnia symptoms [3]. As a more effective acupuncture method for the treatment of insomnia, electroacupuncture has become a common method for the treatment of insomnia. In order to improve the efficiency and effectiveness of acupuncture and moxibustion in the treatment of insomnia, this paper uses thumbtack needle combined with electroacupuncture to treat insomnia.

Objective

To observe the clinical efficacy of acupuncture combined with electroacupuncture in the treatment of insomnia.

Materials and methods

A total of 96 patients with insomnia admitted to the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine from April 2022 to February 2023 were randomly divided into treatment group (n = 48) and control group (n = 48). The control group was treated with electroacupuncture. The acupoints were selected to treat the traditional insomnia acupoints ' Sishencong ' (EX-HN1). The 0.30 × 40mm Andy brand acupuncture needles were used for routine disinfection. On the basis of the observation group, the treatment group was treated with thumbtack needle. The acupoints were selected with ' Sanyinjiao ' (SP6), ' Neiguan ' (PC6), ' Yintang ' (DU29), and the 0.22 × 0.5mm Huatuo brand disposable sterile thumbtack needle was used. The skin was routinely disinfected and attached to the surface of the acupoint. The patient was instructed to press moderately and the intensity was based on the patient 's tolerance. After 2 weeks of treatment, the HAMA scale score and PSQI score of the two groups before and after treatment were observed and compared.

Results and discussion

There were significant differences in PSQI total score, sleep quality, time, efficiency and obstacle factor scores between the treatment group and the control group after treatment ($p < 0.01$). HAMA scale scores were statistically significant ($p < 0.05$). There was no significant difference in sleep time and daytime dysfunction scores ($p > 0.05$). Conclusion : The effect of acupuncture combined with electroacupuncture in the treatment of insomnia is more excellent.

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THE TLC-BIOAUTOGRAPHY AS A TOOL FOR RAPID NEURAMINIDASE INHIBITORS DETECTION

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Abstract. The identification of neuraminidase inhibitors from natural products is a promising strategy in the field of anti-influenza research. In this study, a new thin-layer chromatography (TLC) bioautographic assay for the screening of neuraminidase inhibitors from natural products was developed. This TLC bioassay is based on the one-step reaction of neuraminidase with the sodium salt of 5-bromo-4-chloro-3-indolyl-α-D-N-acetylneuraminic acid (substrate) and the subsequent formation of blue coloured products. Neuraminidase inhibitory activity was shown by the development of white spots against the blue TLC background. The key factors affecting the assay were investigated and optimised by a combination of a one-factor-at-a-time design and a Box-Behnken design/response surface method.

Keywords: TLC-bioautography, neuraminidase Inhibitors, rapid detection, anti-influenza, 5-bromo-4-chloro-3-indolyl-α-D-N-acetylneuraminic acid

Neuraminidase is a glycoprotein present in the outermost envelope of influenza viruses, and the inhibition of neuraminidase can prevent viruses from infecting host cells, and it is, thus, considered to be an important target for the treatment and prevention of influenza. Natural sources, including bacteria, yeasts, fungi and plants, are rich reservoirs of compounds with significant enzymeinhibiting properties. Natural enzyme inhibitors of disease treatment are characterized by structural diversity, low toxicity, a wide range of sources and are safer than chemically synthesized compounds. However, the screening of neuraminidase inhibitors from complex natural products is cumbersome; thus, there is a need for a simple, rapid, and effective screening method.

Thin-layer chromatography (TLC) is an effective planar separation technique for the separation of natural compounds from various mixtures. TLC-bioautography is a hyphenated technique that couples TLC separation with in situ estimation of biological activity. This method is particularly suitable for the bioanalysis of complex natural products because component separation, location, and bio-evaluation are carried out simultaneously. TLC-bioautography offers rapid separation of individual components from complex matrices associated with the identification of their biological activity, and when used properly, it can become a tool for drug discovery.

Objective

To develop a TLC-Bioautographic assay for screening neuraminidase inhibitors and find suitable substrate and derivatisation reagent

Materials and methods

A successful development strategy for an enzyme assay on TLC plates requires a suitable substrate and derivatisation reagent.the sodium salt of 5-bromo-4-chloro-3-indolyl-α-D-N-acetylneuraminic acid, was successfully found to be hydrolysed by neuraminidase, affording a colourless hydrolysed product that is spontaneously oxidised and polymerised in air to blue dimers. The use of this substrate enabled a convenient one-step bioautographic reaction without the need for any derivatisation reagent, thus avoiding the secondary diffusion active spots. The TLC bioautographic method was optimised using a Box-Behnken design method.

Results and discussions

In this study, a TLC-Bioautographic neuraminidase inhibitory method was developed. The experimental conditions were optimised by a combination of a one-factor-at-a-time design and Box-Behnken design using oseltamivir acid as a positive control. This enzyme inhibition assay on TLC plates involves a one-step reaction with a commercially available colourless substrate (sodium salt of 5-bromo-4-chloro-3-indolyl-α-D-N-acetylneuraminic acid) that is hydrolysed into a stable blue product by neuraminidase. Unlike most previous enzyme assays on TLC, our assay does not require a derivatisation reagent to be reacted with the enzyme-hydrolysed product, thus avoiding potential secondary diffusion of the active spots. Spots indicating neuraminidase inhibitory activity were observed as white spots on a blue background.

This TLC-Bioautographic method is rapid, simple, efficient, and particularly suitable for screening natural compounds for neuraminidase inhibitory activity. However, further purification of these compounds to confirm their structures and to explore their implications in cell or animal models is required.

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REVIEW OF TRADITIONAL CHINESE MEDICINE TREATMENT OF CERVICAL RADICULOPATHY

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Abstract. Cervical spondylosis of nerve root type is a common clinical disease. Massage, acupuncture and moxibustion and traditional Chinese medicine are the main treatments of traditional Chinese medicine. Through treatment, muscle spasms can be relieved, achieving anti-inflammatory and analgesic effects. Traditional Chinese medicine has the advantages of less toxic side effects, significant clinical efficacy, and low recurrence rate, and should be promoted and applied.

Keywords: cervical spondylotic radiculopathy, traditional Chinese medicine, literature review

Cervical spondylosis refers to degenerative changes and secondary pathological changes of cervical intervertebral disc, cervical spine bone joints, etc., which damage spinal cord, nerves and other tissues, such as compression, dislocation, etc., resulting in a series of clinical symptoms, of which nerve root type incidence rate is the highest (50.60%) [1]. Traditional Chinese medicine has made certain progress in treating cervical spondylotic radiculopathy, as summarized below.

1. Needle knife treatment

The Dynamic equilibrium imbalance of the neck soft tissue is the fundamental cause of cervical spondylosis. Needle scalpel can peel adhesion, cut scar, loosen contracture, dredge meridians, correct dislocation, and correct curvature in all directions, thus restoring the Dynamic equilibrium and biomechanical balance of the neck to cure cervical spondylosis. Needle knife closed surgery can release the muscle starting and ending points of muscular cervical spondylosis and provide local decompression to reduce nerve root compression, release the posterior membrane of the occipital ring and corresponding muscles to reduce compression on the vertebral artery, and thus eliminate the symptoms of various types of cervical spondylosis.

2. Acupuncture and moxibustion treatment

It is believed that the curative effect of acupuncture and moxibustion on cervical spondylosis has nothing to do with the number of acupoints [2]. On the basis of correct syndrome differentiation and meridian differentiation based on the patient's actual condition, scientific acupoint selection is necessary. As long as the acupoint selection is accurate and the operation is appropriate, needling one or two acupoints can stimulate the entire meridian and regulate the meridian. For example, Zhu Xiaoping et al. used the Canggui acupoint probing acupuncture method to treat soreness and pain in the shoulder and neck by taking Bailao (bilateral), Shajing (bilateral), and Ashi acupoints.

3. Massage therapy

Bailao, Shangbailao, Fengchi, Fengfu, Jianjing, Jianzhongshu, and Jianwaishu acupoints are first

treated with massage through techniques such as one finger Zen pushing, rolling, kneading, kneading, pressing, bouncing, shaking, pulling, and stretching. Finally, combined with cupping, good therapeutic effects can be achieved.

4. Traditional Chinese Medicine Treatment

Traditional Chinese medicine has developed a self formulated formula for cervical spondylosis, which includes 20g of kudzu root, 10g of chuanxiong, 10g of chuanduan, 10g of fangfeng, 10g of papaya, 10g of mulberry branch, 10g of caulis spatholobi, 10g of caulis spatholobi, 5g of ephedra, 10g of cassia branch, and 10g of turmeric. Pain around the body, stiffness of the neck and back, 12g of Qianghuo, 12g of Duhuo, 3g of Asarum, 10g of Acanthopanax giraldii, and 10g of Grass Xie. Fengyang Upward Disturbance, dizziness and tinnitus: remove Chuanxiong, add 10g Gastrodia elata, and 10g Nacre. Severe wind cold and dampness, numbness in limbs, plus 5g of Qi snake, two centipedes, and 10g of scorpio [3].

5. Drug application

The application of Wulongweiling ointment can treat various types of cervical spondylosis. The method is to use 30 g each of clematis, Pangolin, pangolin, wind fairy grass, extensor, frankincense, wuyue, gentiana macrophylla, 20 g each of monkshood, kusnezoff, notopterygium, and angelica, 60 g each of hawthorn, 40 g Schisandra chinensis, 25 g dragon's blood, 10 g musk, and appropriate amount of huangdan [4]. Boil it into a paste and apply it to the affected area. Apply it for 10 days each, with 3 patches as a treatment course, which can basically eliminate the symptoms of neck, shoulder, and arm pain. Drug application improves local microcirculation, strengthens the nutritional supply of intervertebral discs, and slows down or improves the degenerative changes of intervertebral discs, ligaments, and joints through the penetration of local medication.

Conclusion

Nerve root type cervical spondylosis accounts for about 60% of the total number of cervical spondylosis patients, and its mechanism is relatively complex. Combined drug therapy can effectively and effectively eliminate positive reaction points in the neck, and compared to surgical therapy, it is easy to operate, less painful, and easy for patients to accept.

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REVIEW OF DIAGNOSIS AND TRADITIONAL CHINESE MEDICINE TREATMENT OF LUMBAR INTERVERTEBRAL DISC HERNIATION

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Abstract. The treatment of lumbar disc herniation includes western medicine and traditional Chinese medicine. In recent years, due to the in-depth study of the mechanism of TCM therapy and the combination with modern science and technology, it has been further recognized internationally. Now, the clinical research of TCM treatment of lumbar disc herniation is summarized as follows, with a view to providing a reference for better clinical application of traditional Chinese medicine treatment methods and further improvement.

Keywords: lumbar disc herniation; diagnosis;literature review

Lumbar disc herniation is mainly caused by long-term heavy physical labor or sitting work, which leads to degenerative changes in the intervertebral disc. Traditional Chinese medicine treatments such as acupuncture and moxibustion, massage, oral administration and external use of traditional Chinese medicine have been regarded as the first choice for the treatment of lumbar disc herniation.

The following is a summary of the progress of TCM treatment of lumbar disc herniation.

1. Medication

The medical treatment of lumbar disc herniation is mainly Symptomatic treatment for pain symptoms and supportive treatment for neurological damage. Traditional Chinese medicine believes that lumbar disc herniation can be classified as «low back pain» and «arthralgia». Lin Xuejuan summarized the commonly used oral formulas for this disease from 30 doctors in 10 years of literature, including Duhuo Parasitic Tang, Buyang Huanwu Tang, Shentong Zhuyu Tang, Taohong Siwu Tang, Yanghe Tang, Tongdu Huoxue Tang, etc.Traditional Chinese medicine mainly plays a role in dispelling rheumatism, unblocking meridians, promoting blood circulation and alleviating pain in the treatment of this disease, which is basically consistent with the commonly used syndrome differentiation types of cold dampness, damp heat, and blood stasis.

2 Acupuncture and moxibustion treatment

Acupuncture and moxibustion and moxibustion treatment of lumbar disc herniation is based on the meridian theory of Traditional Chinese medicine. Traditional Chinese medicine believes that lumbar disc herniation is caused by wind, cold, dampness and siltation, resulting in blockage of the meridians in the waist and legs, stagnation of qi and blood, and no pain. Acupuncture and moxibustion can reduce the excitability of local Free nerve ending, improve the local microcirculation of nerve roots, improve muscle spasm, and eliminate inflammation and edema. It can also promote the release of opioid peptides and other substances from peripheral inflammatory tissues to achieve analgesic effects.

3 Exercise therapy

With the development of rehabilitation medicine, rehabilitation therapy has made significant progress in the treatment of LDH.The suspension along the meridian plucking method can improve the strength of the extensor muscles in the lower back and alleviate pain. According to the fitness exercise standards advocated by the World Health Organization, patients need one week to master the basic training mode. It can alleviate the dysfunction of the lower back, improve the muscle strength of the lower back muscles, and stabilize the strength of the core muscles, which is worthy of clinical application and promotion.

4. Massage and Bone Setting Techniques for Treatment

The reasonable application of TCM theory and massage treatment can promote the circulation of qi and blood in the meridians and regulate the body function of patients. It has been widely used in lumbar disc herniation. Lumbar disc herniation can be treated by spinal balance manipulation, which has a definite clinical effect and can reduce the pain of patients' waist and legs.

Conclusion

To sum up, there are many non-surgical treatment methods for lumbar disc herniation, which are safe, effective, convenient and effective. Therefore, they are widely used in clinical practice. The use of a single treatment method often lacks multiple treatment methods.

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SUMMARY OF CHINESE MEDICINE TREATMENT OF FEMORAL HEAD NECROSIS

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Abstract. TCM has a unique understanding of the treatment of femoral head necrosis. The basic ideas are the methods of promoting blood circulation, strengthening the spleen, and invigorating the liver and kidney. TCM on femoral head necrosis is not only effective, but also has less damage, highlighting the significant advantages of TCM.

Keywords: Femoral head necrosis; TCM medicine; Treatment; Summary

Osteonecrosis of the femoral head (ONFH) is a femoral joint disease characterized by a series of pathological changes such as avascular necrosis of the femoral head, bone destruction, and articular surface collapse caused by one or more reasons, often manifested as gradual aggravation of hip pain, limitation or even loss of hip function, etc. High rate of deformity. According to statistics, there are about 8.12 million adult ONFH cases in China, and the incidence rate is increasing year by year, and non-traumatic ONFH is the most common clinical condition. At present, the main pathogenic factors of non-traumatic ONFH are hormones and alcohol

The specific pathogenesis is not clear, and it may be related to abnorma lipid metabolism, coagulation dysfunction and other factors. [1]

1. Traditional Chinese medicine etiology of femoral head necrosis

The etiology of ONFH can be divided into internal causes and external causes in traditional Chinese medicine. The internal causes include deficiency of liver, spleen and kidney, weakness of Qi and blood, and the external causes are mostly trauma and evil invasion. The pathogenesis of ONFH is mainly in liver, kidney and spleen. «Plain question • Flaccidity on article» said: «Kidney qi heat, then lumbar spine does not lift, bone withered and marrow reduction, hair for bone flaccidity.» «Plain Question •

2. Traditional Chinese Medicine Treatment for Femoral Head Necrosis

Traditional Chinese medicine treatment of the disease, the treatment method to promote blood, spleen, tonifying liver and kidney as the basic idea, according to different stages, different factors and different situations apply different treatment, that is, syndrome differentiation of treatment, highlighting the advantages of traditional Chinese medicine syndrome differentiation. The early traumatic necrosis of the femoral head is mostly syndrome of qi stagnation and blood stasis.[2] .

3. Traditional Chinese Medicine Treatment Measures for Femoral Head Necrosis

3.1 Internal Treatment Methods of Traditional Chinese Medicine

With the further integration and development of Chinese and Western medicine, scholars have gradually deepened their cognition of NONFH, and more pharmacological effects and active ingredients of traditional Chinese medicine have been discovered, which provides a new idea for the treatment of various types of NONFH with traditional Chinese medicine.

3.2 External Treatment of Traditional Chinese Medicine

External application of traditional Chinese medicine is based on the basic theory of traditional Chinese medicine, and takes the syndrome differentiation and treatment of traditional Chinese medicine as the core guidance. According to the theory of traditional Chinese medicine, the traditional Chinese medicine with the effects of dispelling wind and dispelling cold, promoting blood circulation and removing blood stasis, breaking blood and promoting Qi, clearing collaments and relieving pain, tonifying kidney and strengthening bones is made into ointment, powder and other dosage forms. [3]

In the theory of meridians and collaterals of traditional Chinese medicine, acupuncture and moxibustion has the effect of dredging meridians and regulating qi and blood, which can effectively stimulate the human body's resistance to disease and effectively promote bone repair and growth. Select the corresponding main points, matching points, through acupuncture treatment, direct action on the local necrosis of the femoral head, to promote local blood circulation and stimulate bone regeneration, which can be very good fundamentally and effectively alleviate the disease. Dialectical selection of different main points and traditional Chinese medicine prescriptions, so that the clinical treatment effect is better. [4]

4. Summary

ONFH, as one of the refractory orthopedic diseases, causes serious harm to the physical and mental health of patients. In recent years, the conservative treatment of traditional Chinese medicine has been increasing, and it has played an important role in the treatment of ONFH in the early and middle stages. It has the characteristics of significant curative effect, economic and practical,

less adverse reactions and high patient acceptance. As an auxiliary treatment for hip treatment in Western Medical Insurance, it can effectively delay the development of the disease and reduce the economic burden of patients and society.

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ACUPUNCTURE REGULATES TM9SF1 AND LC3 LEVELS TO ENHANCE MITOCHONDRIAL AUTOPHAGY IN VASCULAR DEMENTIA RATS

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Abstract. This study aimed to observe the therapeutic effects of twisting needle acupuncture and electroacupuncture on bilateral Baihui (GV20) and Sishencong (EX-HN1) points in the treatment of vascular dementia (VD), as well as their impact on the levels of transmembrane 9 superfamily protein 1 (TM9SF1) and microtubule-associated protein 1 light chain 3 (LC3). It revealed the regulatory mechanism of acupuncture in treating VD. Using proteomic methods, an upregulation of TM9SF1 was detected in the hippocampus of VD model rats. Immunoblotting and immunohistochemical analysis showed a significant decrease in TM9SF1 and LC3 levels in the model group rats, while the acupuncture group rats exhibited a significant increase in TM9SF1 and LC3 levels. These findings demonstrate that acupuncture can improve cognitive function and daily activities in VD patients, possibly by regulating TM9SF1 and LC3 levels in the hippocampus and enhancing neuronal mitochondrial autophagy.

Keywords: Acupuncture,Vascular dementia,TM9SF1,LC3

Vascular dementia (VD) is characterized by cerebral vascular lesions, including hemorrhagic or ischemic changes in brain tissue, with ischemic changes being more common. Acupuncture has unique advantages in the prevention and treatment of VD.

Objective

This study aimed to explore the mechanism by which acupuncture promotes mitochondrial autophagy in neurons and improves cognitive dysfunction, providing new insights and evidence for the prevention and treatment of VD.

Materials and Methods

1.1 Experimental Animals and Grouping: Sixty healthy SD rats weighing (230±20)g were randomly divided into the sham surgery group, model group, acupuncture group, and electroacupuncture group, with 6 rats in each group.

1.2 Model Preparation: The VD rat model was prepared using the four-vessel occlusion (4VO) method, wherein bilateral vertebral arteries were electrocoagulated and the carotid arteries were repeatedly clamped and released three times.

1.3 Intervention Method: Bilateral Baihui (GV20) and Sishencong (EX-HN1) points were stimulated. The treatment frequency for both groups was 30 minutes per day.

Results and Discussion

2.1 Behavioral Testing: Compared to the sham surgery group, the escape latency of the model group rats was prolonged at each time point ($P<0.01$). Compared to the model group, the acupuncture group rats showed a significant reduction in escape latency at each time point($P<0.01$).

2.2 Western blotting analysis showed that compared to the sham surgery group, the levels of TM9SF1 and LC3 in the hippocampus of the model group rats were decreased ($P<0.01$), as well as the ratio of LC3-II to LC3-I ($P<0.01$). Compared to the model group, the acupuncture group rats exhibited increased levels of TM9SF1 and LC3 in the hippocampus ($P<0.05$), as well as an elevated ratio of LC3-II to LC3-I ($P<0.01$).

2.3 Immunohistochemical analysis showed that compared to the sham surgery group, the levels of TM9SF1 and LC3 in the hippocampus of the model

group rats were decreased (P<0.05). Compared to the model group, the acupuncture group rats exhibited increased levels of TM9SF1 and LC3 in the hippocampus (P<0.05).

2.4 Discussion: Autophagy is a conserved intracellular degradation process involved in the breakdown of cytoplasmic macromolecules, aggregated proteins, damaged organelles, or pathogens. These components are delivered to lysosomes and digested by lysosomal hydrolases, generating nucleotides, amino acids, fatty acids, sugars, and ATP, which are then recycled back into the cytoplasm. In cells experiencing prolonged hypoxia, mitochondrial autophagy is an adaptive metabolic response that is necessary to prevent an increase in reactive oxygen species levels and cell death. Under the acetylation modification of autophagy proteins such as ATG3 and ATG7, TM9SF1 and phosphatidylethanolamine work together to convert soluble LC3-I into lipidated LC3-II. Some studies have shown that overexpression of TM9SF1 in HeLa cells significantly increases the number of GFP-LC3 dots, inducing autophagy in these cells. In 293T cells, overexpression of TM9SF1 leads to a significant upregulation of LC3-II expression and an increased LC3-II to LC3-I ratio, indicating that TM9SF1 can induce autophagy in these cells. The results of this study demonstrate that acupuncture intervention leads to an increase in the LC3-II to LC3-I ratio, an elevation in autophagy levels, and an increase in neuronal survival, consistent with previous research findings.

Acupuncture can improve cognitive function and alleviate neuroinflammatory responses in VD rats, possibly through upregulation of TM9SF1 and LC3 levels in the hippocampus, an increase in the LC3II/LC3I ratio, and enhanced mitochondrial autophagy in neurons.

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CLINICAL EXPERIENCE OF THE «HE TIAO DU REN AN SHEN ACUPUCTURE» IN THE TREATMENT OF POST-STROKE INSOMNIA WITH ANXIETY

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Abstract. Stroke patients are often accompanied by insomnia in the acute phase, and anxiety is the most common accompanying symptom in post-stroke insomnia patients with difficulty in falling asleep and sleep disruption as the main clinical manifestations, and the two have a malignant effect on each other, which can induce a second stroke to a certain extent. Acupuncture has proven effective for mental disorders, representing a unique and advantageous therapeutic method. Professor Chen Yinghua has used the «He Tiao Du Ren An Shen Acupuncture» to treat post-stroke insomnia accompanied by anxiety, achieving significant clinical results without any adverse reactions.

Keywords: Post-stroke insomnia, Anxiety, He Tiao Du Ren An Shen Acupuncture, Acupuncture, Clinical experience

Stroke is characterized by high mortality, high disability, and high morbidity rates, often accompanied by many complications and sequelae, making it a major global public health issue. Insomnia is one of the common complications after a stroke, with a stroke-related insomnia incidence rate of 57%, mainly manifested as difficulty falling asleep and maintaining sleep. Post stroke anxiety also often occurs in conjunction with post stroke insomnia, and prolonged insomnia can also lead to anxiety in patients. Supervisor Prof. Yinghua Chen studied with Prof. Sun Shentian, the 4th National Medical Master, and based on years of experience in acupuncture treatment, he applied the «He Tiao Du Ren An Shen Acupuncture» to treat post-stroke insomnia with anxiety and obtained good clinical efficacy, which is reported as follows.

Objective

In order to enrich the therapeutic methods of acupuncture treatment for post-stroke insomnia with anxiety, the clinical efficacy of «He Tiao Du Ren An Shen Acupuncture» was investigated.

Materials and methods

All 36 cases were patients with post-stroke insomnia and anxiety who visited the acupuncture outpatient clinic of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine from March 2021 to December 2022. The diagnosis of stroke meets the «Key Points for the Diagnosis of Various Cerebrovascular Diseases»[1], and also meets the diagnostic criteria for chronic insomnia in ICD-11 [2], with accompanying anxiety. The Hamilton Anxiety Scale (HAMA) score is 7 to 14 points. The «He Tiao Du Ren An Shen Acupuncture» selects Sun's abdominal acupuncture «abdominal one area», Zhongwan(RN12), Danzhong(RN17), Yintang(EX-HN3), Ningshen, Shenting(DU24), Baihui(DU20), Naohu(DU17), and Dazhui(DU14) on the basis of regular stroke disease acupuncture treatment. Operation Method: After routine disinfection, a 0.30mm×40mm disposable acupuncture needle is used to puncture along the direction of the Ren Meridian, up to the head and face, and then puncture in reverse along the direction of the Du Meridian, stimulating the energy of the Ren and Du Meridians, and forming a circulation of energy and blood between the Ren and Du Meridians, allowing Yin and Yang to intersect. Sun's abdominal acupuncture «Abdominal Zone 1» (the three intersections formed by three vertical lines 5mm apart from the anterior midline and a horizontal line 5mm below the xiphoid process) is punctured horizontally downwards 15 mm; the Zhongwan is obliquely punctured downwards 15-20mm; the Danzhong is punctured horizontally downwards 15mm; the Yintang acupoint is pinched and punctured horizontally downwards 15 mm; the Ningshen acupoint (located at the lower end of the forehead midline, with one acupoint on each side parallel to the inner canthus) is punctured horizontally upwards 38mm; the Shenting along the Du Meridian is punctured horizontally towards the Baihui direction, about 15mm; the Baihui is punctured horizontally backwards 20mm; the Naohu along the Du Meridian is punctured horizontally downwards 20mm; the Dazhui is obliquely punctured upwards at a 45° angle along the skin 15-20mm. The Du meridian acupoint adopts the twisting and tonifying method, the Ren meridian acupoint adopts the twisting and tonifying method, and the remaining acupoints use the leveling and tonifying method. Treatment is given once a day, 6 days a week, with a break of 1 day, and 7 days as a course of treatment, for a total of 4 courses of treatment. Pittsburgh sleep quality index (PSQI) and HAMA scores are compared before and after treatment. The efficacy was assessed by the PSQI efficacy index, i.e., (pre-treatment PSQI score - post-treatment PSQI score)/pre-treatment PSQI score × 100%), using the nimodipine method.

Results and discussion

The total effective rate was 91.7%, Cure: PSQI efficacy index ≥75%, 8 cases; Significant effect: 50%≤PSQI efficacy index <75%, 15 cases; Effective: 25%≤PSQI efficacy index <50%, 10 cases; Ineffective: PSQI efficacy index <25%, 3 cases. The post-treatment PSQI dimension scores and HAMA scores were significantly lower than before the intervention. From the perspective of traditional Chinese medicine, post-stroke insomnia should fall into the category of «insomnia due to illness», which is closely related to the pathogenesis of stroke. The fundamental pathogenesis of this disease lies in the imbalance of yin and yang, and the disorder of the operation of the viscera and blood. Therefore, treating insomnia is also beneficial to the retreat of anxiety symptoms and the recovery of stroke patients. This study adopts the «Harmony Regulation Governor Ren Anshen Method» to achieve the effect of «Yin Ping Yang Mi» by reconciling Yin and Yang.

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ULTRASOUND GUIDED INJECTION OF PLATELET-RICH PLASMA FOR THE TREATMENT OF CARPAL TUNNEL SYNDROME

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Abstract. Platelet-rich plasma (PRP) has been confirmed on various musculoskeletal diseases for its therapeutic potential both in vivo and in vitro for several decades. However, effect of PRP injection for Carpal Tunnel Syndrome has not been clearly elucidates until now. In this study, we measured Visual Analogue Scale (VAS) scores and evaluated changes of pain and numbness of upper limbs in patient after 20 months under ultrasound-guided PRP injection. The results unveiled PRP treatment ameliorated medical nerve compression and stiffness of upper limbs. In conclusion, our examination demonstrates treatment of PRP under ultrasound guided might be a promising technology for wound healing.

Keywords: Carpal Tunnel Syndrome, platelet-rich plasm, ultrasound, local injection, clinical trial

Approximately 2/3 adults suffer from serious musculoskeletal diseases, which extremely outweighed burdens of society and country1 for decades. In recent years , some of surgical strategies have already occurred but can't be widely applied to clinic due to its severely complications. 2Carpal tunnel syndrome (CTS), a kind of peripheral nerve lesion syndromes which mainly manifests severely pain, numbness and even activity limitation of upper limbs. The traditional treatment methods of Carpal tunnel syndrome mainly include conservative treatment, interventional treatment and surgical treatment, which can relieve pain, but cannot slow down or reverse the reduction of extracellular matrix and the loss of nucleus pulposus cells and cannot repair the intervertebral disc tissue of patients. In recent years, biological therapies based on regenerating intervertebral discs have provided new ideas for the treatment of Carpal tunnel syndrome. Biological therapy mainly includes stem cell therapy, platelet-rich plasma (PRP) therapy, etc. Among them, PRP has the advantages of strong regeneration ability, convenient sampling and preparation, less rejection and less adverse reactions. 3However, the effect of PRP injection for carpal tunnel syndrome has not been entirely elucidated. In this article, we will discuss a classically clinical case point who was treated during 20 months by applying intraneural injections of PRP4 and shed light on the promising prospect of applying of PRP.

Objective

The prior tests and articles have already been proved therapeutic potential of PRP injection of plenty of musculoskeletal disorders. In this article, we will discuss a classically clinical case point who was treated during 20 months by applying intraneural injections of PRP4 and shed light on the promising prospect of applying of PRP.

Materials and methods

20 ml of venous blood was extracted and put into a centrifuge (produced by Shandong Weigao Group Medical Polymer Products Co., LTD., model: WG-YLJ-I). After the first centrifugation, the lowest red blood cell layer in the tube was sucked, and then the second centrifugation was carried out. We recruited a healthy 30-year-old woman who was trapped by violent pain and activity limitation of right upper limb. 2 ml of platelet-rich plasma (PRP) was injected into the point along the median nerve of the right upper limb under ultrasound guidance, and then measured Visual Analogue Scale (VAS) score5.

Results and discussion

After 20 months treatment, Visual Analogue Scale (VAS) has gained increasingly growth. Simultaneously, sense of pain and numbness of patient ameliorated with no limitation of upper limbs. However, our study also has serious of limitations. For instance, small number of patients, no follow-up, no pro-treatment, or no controlled experiment. Absolutely, additional studied are needed urgently to illustrate the effect of PRP treatment on Carpal Tunnel Syndrome. We proposal the measure of a randomized double-blind controlled clinical trial based on our conclusion to confirm the possible favorable use of PRP in patients with mild to moderate CTS. Lastly, PRP derived from health human blood and proved no side effect, infection, and complaints for patient6. It should be recognized that PRP might be widely and promisingly applied in clinic in the future.

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EFFICACY OF ACUPUNCTURE ON ACUTE TONSILLITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Abstract. Acute tonsillitis were defined as discomfort, pain, or scratchiness in the throat due to various infectious causes. Acupuncture technique, a non-drug therapy, is precious in pain management with immediate effects and minimal adverse reactions. With the increasing application of acupuncture in clinical, it is widely used to treat acute tonsillitis. Many clinical reports have been on acupuncture for acute tonsillitis. But the efficacy and safety of acupuncture for treating acute tonsillitis are controversial.

Keywords: acupuncture, acupuncture analgesia, acute tonsillitis, systematic review, meta-analysis

The management of acute tonsillitis remains challenging. Clinical treatment of pharyngitis can be divided into symptomatic and antimicrobial therapy. Symptomatic treatments include non-steroidal anti-inflammatory drugs (NSAIDs) and paracetamol, laryngeal preparations (local anesthetics and NSAIDs), oral corticosteroids, etc. The primary antimicrobial treatment is the application of antibiotics, of which penicillin remains the first choice, with amoxicillin, cefadroxil, cephalexin, and azithromycin as alternatives for those who are intolerant to a penicillin. Nevertheless, some drugs used for symptomatic treatment can cause serious adverse effects in small probability, such as throat preparations and diclofenac, or have limited efficacy, such as oral corticosteroids and paracetamol. In addition, unnecessary antibiotic prescriptions represent an additional risk to patients and promote the development of drug resistance. Patient expectations are not for antibiotics but pain relief. Therefore, identifying an effective treatment for relieving the pain of acute pharyngitis with fewer side effects is crucial. Heterogeneity remains in the efficacy of acupuncture in the treatment of acute pharyngeal infections. To address the above inconsistencies, this meta-analysis evaluated RCTs of acupuncture objectively and comprehensively for acute tonsillitis, has provideding an evidence-based medical basis for acupuncture therapy for acute tonsillitis and guiding guided clinical decision-making.

Objective

To systematically assess the efficacy and safety of acupuncture in treating acute tonsillitis, providing a reference for clinical decision-making.

Materials and methods

We searched PubMed, CENTRAL, Embase, Web of Science, China National Knowledge Infrastructure, China Biomedical, clinical research registration platforms, grey literature, and the reference lists of the selected studies from inception to Oct. 30, 2022. The risk of bias assessment used RevMan. Meta-analysis was performed using STATA with Hedges' g value. In addition, we

performed subgroup analysis, meta-regression, and publication bias detection with Harbord's and Egger's tests.

Results and discussion

We included 19 randomized controlled trials comprising 1701 patients, of which 1 study was assessed high risk of bias. The primary outcome, the response rate, revealed that acupuncture was more effective than antibiotics. The secondary outcomes showed that the difference in the reduction of the VAS scores, sore throat time, and white blood cell counts was statistically significant with acupuncture compared to antibiotics. However, the difference in modulating neutrophil percentage and C-reactive protein was not statistically significant. Besides, acupuncture treatments showed a lower incidence of adverse events than antibiotics.

Conclusions

Acupuncture therapy on acute tonsillitis is safe, and the response rate is superior to antibiotics. For alleviating sore throat symptoms, shortening sore throat time, and improving immune inflammation index, acupuncture has positive significance. Nevertheless, because of the limitations of this study, our conclusions should be interpreted with caution. Future efforts still need more high-quality trials to improve the methodology and reporting quality.

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MECHANISM AND CLINICAL EFFICACY OF CHINESE HERBAL MEDICINE IN THE TREATMENT OF CHRONIC FATIGUE SYNDROME

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Abstract. Chinese herbal medicine (CHM) has made some positive achievements in the therapy of chronic fatigue syndrome. This article summarizes the clinical efficacy and mechanism of CHM in the treatment of CFS, in order to provide more strong evidence for the clinical practice of CFS.

Keywords: Chinese herbal medicine, Biejiajian Pill, treatment, mechanism, clinical efficacy

Chronic fatigue syndrome (CFS) is a medically unexplained and debilitating mental and physical condition characterized by persistent fatigue and several other symptoms, such as sleep disorders and lengthy malaise after exertion, which lead to severe disability and suffering in patients. Chinese herbal medicine (CHM) has been widely used to treat CFS and shown significant efficacy in the treatment of CFS. This article will This article summarize the mechanism and clinical efficacy of CHM in the treatment of CFS, in order to provide a theoretical basis for its clinical treatment.

1. Mechanisms of chronic fatigue syndrome

Popular hypotheses include triggers, microbiome disruption, dysregulated immune response, chronic low-grade inflammation, neuroendocrine abnormalities, oxidative stress, metabolic dysfunction, mitochondrial dysfunction, and genetic predisposition. These factors can also interact to promote the occurrence and development of CFS. In addition, the hypothalamic-pituitary-adrenal (HPA) axis is impaired in patients with CFS, which may result in neuroendocrine abnormalities as well as metabolic and inflammatory changes.

2. Mechanism of CHM in the treatment of CFS

The possible mechanisms of CHM for CFS are as follows: (1) Adjusting the immune dysfunction: a study found that Young Yum Pill, a proprietary herbal drug, could improve immune organ (thymus and spleen) indices, mitogenic response of lymphocytes, and numbers of T-cell subsets [1]. Buzhong Yiqi decoction, Kuibi decoction, and Danggui Buxue decoction inhibit tumor necrosis factor-a, IL-6, IL-10 and transforming growth factor-b1 in CFS patients [2, 3]. Furthermore, Renshen Yangrong decoction can ameliorate lower NK cell activity and extracts

of Ginseng can also boost natural killer cell function and the cellular immunity of patients with CFS [3, 4]. (2) Antioxidant effects: superoxide dismutase (SOD) and glutathione peroxidase (GSH-Px) are two major components of antioxidative system and their function is to detoxify reactive oxygen species. Danggui Buxue decoction, Ginsenoside and Jujube polysaccharide conjugate could improve SOD and GSH-Px activities and decrease MDA levels [4]. (3) Improving metabolic dysfunction: Chi's study confirmed that Schisandra Chinensis Polysaccharide treatment affects metabolic pathways, including the TCA cycle and alanine, aspartate and glutamate metabolism [5]. Danggui Buxue decoction might regulate serine, glycine, and threonine metabolism to improve energy supply and ameliorate the CFS-weakened immunity[3]. In addition, HEP2-a extracted from Epimedium brevicornu Maxim increased the creatine level to improve the arginine and proline metabolism. (4) Regulating the abnormal activity of the HPA axis: Chi inferred that HEP2-a indirectly affected the HPA axis abnormality of CFS by increasing noradrenaline level[6].

3.Clinical efficacy of CHM in the treatment of CFS

The Clinical efficacy of CHM for CFS are as follows: (1) CHM treatment increased the efficiency rate and reduced the clinical symptom scores [7]. (2)CHM reduced internationally recognized scales (FS-14 and FAI scores) used to quantitatively assess fatigue, indicating that it improved fatigue symptoms[8].(3)CHM reduced mental status assessment scales such as SCL-90, SAS, and SDS, showing that it improve negative emotions in patients with chronic fatigue[9]. (4)CHM can elevated immunological indicators (IGA, IGG, and IGM) levels [7].

Discussion

CHM, either as adjuvant therapy or monotherapy, can effectively reduce fatigue symptoms, improve immune function, and improve patients' physique. In addition, current studies did not report serious adverse events, suggesting that CHM is relatively safe in patients with CFS. To better understand the activity of Chinese herbal medicine for CFS, more validation studies, with high-quality evidence (both in vitro and in vivo), are still needed to systematically explore the underlying mechanisms.

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RESEARCH PROGRESS IN ACUPUNCTURE TREATMENT OF INSOMNIA

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Abstract. This paper discusses the acupoint selection rule and syndrome differentiation and treatment of insomnia by acupuncture. It is found that the acupoint selection is based on Baihui, Sishencong, and Sleeping. The head and neck acupoints are mostly used as the main acupoints, and the limbs acupoints are mostly used as the matching acupoints, so as to grasp its phased characteristics.

Keywords: insomnia;acupuncture ;Acupoint selection pattern

Insomnia refers to a subjective experience that cannot meet the normal physiological needs of the human body due to a decrease in sleep time, thereby affecting social life.Meta analysis shows that : acupuncture and moxibustion, as a green therapy with simple operation, is mostly used in insomnia, and patients benefit significantly [1]. This article summarizes and explores the literature on acupuncture treatment of insomnia in recent years from two aspects: acupuncture points and syndrome differentiation and treatment.

1.Selection rules

Wang Yan [2] explored the acupoint usage patterns of insomnia and found that the overall treatment follows the principle of «acupoint location, main treatment». The acupoints selected are mainly head acupoints such as Baihui, Shenting, Qiangjian, and Fengchi. The Foot Sun Bladder Meridian is closely related to the brain due to its circulation of «entering the collateral brain from the top, and also leaving other lower items», so it is recommended to acupuncture this meridian; The selection of acupoints for insomnia is mostly specific: the bladder meridian back shu point, the kidney shu point, the liver meridian original point, Taichong point, and the stomach meridian lower confluence point, Zusanli point, etc. At the same time, attention is paid to the three talent point matching method of heaven, earth, and human. The combination of the three can improve the therapeutic effect.

2 .Research on Baihui acupoint, Sishencong acupoint, and Anmian acupoint

Baihui acupoint has the effect of being able to move and calm down, and has good calming and calming effects on various hyperactive diseases, as well as calming the wind and calming the nerves.Wang Xuemei [3] found through animal experiments that acupuncture at Si Shen Cong can indeed increase the index of thymus and spleen, enhance brain tissue activity, delay immune system atrophy, restore normal sleep rhythm, and prolong sleep time.The Anmian acupoint does not belong to the scope of the Fourteen Meridians, but is located between Yifeng and Fengchi. It is a unique acupoint outside the meridian and has the function of communicating with Qiaomai and regulating the sleep rhythm of the human body.

3.Research on Abdominal Acupuncture, Wrist Ankle Acupuncture, and Ear Acupuncture

Abdominal acupuncture therapy belongs to the microneedle system, centered around the Shenque regulatory system, and treats systemic diseases by needling abdominal acupoints.Wrist ankle acupuncture is a summary of Professor Zhang Xinshu's long-term clinical practice based on the theory of traditional Chinese medicine specimens and the theory of the twelve skin regions. Through acupuncture in specific areas of the wrist and ankle, the overall functional state can be changed. Ear acupuncture therapy refers to a method of using short needles or other means to stimulate the auricle to diagnose and treat diseases under the guidance of acupuncture and moxibustion and anatomy theory, including ear point sticking and pressing, ear point acupuncture, etc., which can be traced back to the pre Qin period [4].

Discussion

By reviewing the literature on acupuncture treatment of insomnia, summarize the rules of acupuncture point selection and syndrome differentiation and treatment. Generally, basic acupoints such as the head, neck, and distal limbs are selected, and then acupoints are selected under the guidance of traditional Chinese medicine syndrome differentiation. The compatibility of acupoints varies depending on the type of syndrome. Additionally, abdominal acupuncture, ear acupuncture, and wrist ankle acupuncture can be used to form the best acupuncture treatment plan, achieving a dual effect of individualization and comprehensiveness.

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TO INVESTIGATE THE INTERVENTION MECHANISM OF DIHUANG YINZI ON BIOMARKERS OF ALZHEIMER'S DISEASE BASED ON URINE METABOLOMICS

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Abstract. This paper presents the results of a study on the early diagnosis biomarkers of Alzheimer's disease based on urine metabolomics and the intervention effect of the traditional Chinese medicine Dihuang Yinzi (DHYZ) : Amino acid metabolism may be an important biomarker for the diagnosis of early Alzheimer's disease, and Dihuang Yinzi may play a therapeutic role by interfering with amino acid metabolism. The urine samples of APP/PS1 mice were detected by UPLC-MS to screen and identify urine differential metabolites and metabolic pathways. A total of 150 differential metabolites were identified in the urine samples of APP/PS1 mice, and DHYZ was able to regulate 57 of them, which were mainly involved in 22 metabolic pathways.

Keywords: Alzheimer's disease, Dihuang Yinzi, urine metabolism

Traditional Chinese medicine believes that the incidence of Alzheimer's disease is mainly due to kidney essence deficiency, phlegm turidity and obstruction of the body, resulting in the reduction of the brain and the loss of the spirit machine. Therefore, this research group is based on the traditional Chinese medicine theory of «kidney storing essence, essence producing pulp, pulp filling brain», to tonifying kidney filling essence, eliminating phlegm and opening orificum as treatment.

In this study, metabolomics technology was used as the breakthrough point to explore the regulatory mechanism of DHYZ on metabolic markers of Alzheimer's disease brain tissue, and further enrich the types of metabolic markers of Alzheimer's disease, in order to improve the early diagnosis and early prevention and treatment level of Alzheimer's disease.

Objective

To explore the changes of urine differential metabolic markers and related metabolic pathways in APP/PS1 double transgenic dementia model mice, and to reveal the regulatory mechanism of DHYZ on urine differential metabolites.

Materials and methods

The studied samples were analyzed by UHPLC-MS after treatment by metabolomics technology, and terminal differential metabolites with molecular weights less than 1000 were selected and identified. By comparing upstream and downstream metabolite relationships and metabolic pathway networks, and fitting KEGG data, we can grasp the physiological activities of the body from the whole level, and speculate the possible pathogenesis of diseases and effective ways to intervene in diseases after medication.

Results and discussion

1. DHYZ can improve the non-spatial cognitive memory ability of APP/PS1 dementia model mice.

2. 89 different markers were detected in the urine tissue of APP/PS1 dementia model mice, involving 22 metabolic pathways. Through the induction and analysis of the pathway, it is concluded that DHYZ may play a role in preventing and treating AD by improving the stability of central nervous system, promoting the supply of energy metabolism, and enhancing the antioxidant capacity of the body.

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SUMMARY OF ATHEROSCLEROSIS IN TRADITIONAL CHINESE MEDICINE DIAGNOSIS AND TREATMENT

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Abstract. Atherosclerosis (atherosclerosis, AS) is the pathological basis of a variety of diseases, with a high mortality rate and disability rate. Traditional Chinese medicine treatment has certain characteristics and advantages, which is of great significance for the prevention and treatment of AS. This paper summarizes the syndrome differentiation, acupuncture therapy, acupuncture therapy, psychological counseling, and found that TCM syndrome differentiation mainly focuses on phlegm and blood stasis, lack of objective and unified evaluation criteria; the TCM treatment can effectively improve the symptoms of AS patients, and has proved effective in lipid lowering, anti-inflammatory, anti-immune, protect the vascular endothelium, but the current study sample size is small, the research scope is limited, large sample, multi-center, multi-angle, multi-level research is still very necessary

Keywords: Atherosclerosis; Traditional Chinese Medicine; Treatment based on syndrome differentiation

Atherosclerosis (atherosclerosis, AS) is a kind of common and frequently occurring diseases that mainly involve the large and medium arteries, with high mortality and high disability rate. worldwide, more than 20 million people die from AS related diseases every year, which is another high-risk disease after cerebrovascular disease and malignant tumors. TCM treatment has its own unique advantages, and it is of great strategic significance to explore its treatment from the perspective of TCM.

1 Differential differentiation and classification of atherosclerosis

At present, there is no unified standard for atherosclerosis syndrome differentiation in TCM, but in terms of its causes, mechanisms and corresponding clinical manifestations, it can be roughly divided into two aspects: deficiency and deficiency. Virtual mainly refers to qi deficiency, Yin deficiency, Yang deficiency. AS is often due to the deficiency, and more virtual because of the reality, forming the pathological syndrome of false and false mixed. Different doctors, the focus of syndrome differentiation is also different. Previous doctors summarized AS as deficiency, stasis, sputum and toxicity [1].

2 Treatment methods of atherosclerosis

2.1 Traditional Chinese medicine therapy

2.1.1Dispel phlegm and remove blood stasis. Experimental studies show that resolving phlegm and activating blood circulation prescription can effectively inhibit AS inflammatory response, improve vascular endothelial function [2], and can not only significantly resolve plaques in rats, but also effectively activate PPARγ and improve insulin resistance.

2.1.2 Clear away the heat and detoxify. Experimental studies show that the heat-clearing and detoxification method not only has the effect of anti-lipid peroxidation, but also can inhibit the infiltration of inflammatory cells, and realize the prevention and treatment of AS. Using the intervention treatment of high cholesterol rabbits, it was found that it has a significant improvement on blood rheological index, and can reduce the viscosity of blood, reduce the damage of AS [3].

2.1.3 Keep the wind down and promote blood circulation.AS is the pathological basis of cardiovascular and cerebrovascular diseases, with the pathological characteristics of collateral qi deficiency, vein stasis and anxiety [4]. Some scholars believe that, wind stasis is the key to the pathogenesis, «collaterals is used for» .

2.1.4 Sinvigorating spleen, tonifying kidney and regulating liver. Experimental studies also proved that kidney-based Chinese medicine has the effect of reducing blood lipid and protecting vascular endothelial cells. [5]; Chinese medicine can reduce TC / HDL-C level, reduce aortic cholesterol deposition, and significantly inhibit the occurrence and progression of AS.

2.2 Other Therapy. Acupuncture therapy has distinct characteristics in the treatment of traditional Chinese medicine. Experimental studies found that moxibustion could increase the content of LC3 particles in the cytoplasm of mouse macrophages, activate autophagy, and interfere with the autophagy-related mTOR / Akt pathway .

Discuss

Clinical studies have shown that TCM treatment can effectively improve patients' symptoms, and experimental studies have proved that TCM treatment is effective in lipid-lowering, anti-inflammatory, anti-immunity, and protection of vascular endothelium. However, the complexity of the pathological mechanism and the diversity of drug targets make the mechanism of drug action not

fully clarified, and it still needs to be further explored from the perspectives of protein, gene, metabolism, epigenetic modification.

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RESEARCH PROGRESS ON PHARMACOLOGICAL EFFECTS OF POLYGONATI RHIZOMA AND ITS EFFECTIVE COMPONENTS

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Abstract. Polygonati rhizoma is a Chinese herbal medicine with the same food and medicine, which has the functions of invigorating qi, nourishing yin, moistening lung, invigorating spleen and tonifying kidney, and mainly contains active ingredients such as polysaccharides, saponins and flavonoids. Modern pharmacological research shows that it has pharmacological effects such as regulating blood sugar, anti-free radical aging, anti-inflammatory, anti-fatigue, improving learning and memory, and anti-tumor. In this paper, the pharmacological effects of Polygonatum sibiricum and its effective components were reviewed, which provided the basis for its further application and development and new drug research.

Keywords: Polygonati rhizoma; anti-ageing; Regulate blood sugar; resist inflammation

Polygonati rhizoma Polygonatum multiflorum Thunb. or Polygonatum cyrtonema Hua, the dried rhizome of Liliaceae plants, was first recorded in the Records of Famous Doctors [1]. There are about 80 species of Polygonatum in the world, including 39 species in China, accounting for about 2/3 of the world's species, most of which are distributed in North China and Northwest China. «Famous Doctors Don't Record» Day «Polygonatum tastes sweet, flat and non-toxic. The main tonic qi, in addition to rheumatism, the five internal organs. Long-term service makes people fit, prolongs life, and is not hungry» [2]. Clinically, it is used to nourish and strengthen the body and treat kidney deficiency and essence deficiency, lung deficiency and dry cough, and spleen and stomach weakness. Polygonatum sibiricum is rich in various active components, including polysaccharides, steroidal saponins, flavonoids, anthraquinones, amino acids and inorganic salts, volatile oils, lignans and alkaloids, and has the functions of regulating blood sugar, enhancing immunity, resisting tumors, improving learning and memory, resisting inflammation and viruses, and resisting aging. In this paper, the research progress of pharmacological effects of Polygonatum sibiricum and its effective components was reviewed by summarizing the relevant literatures published in recent years.

Objective

Summarize the research progress of pharmacological effects of Polygonati rhizoma and its effective components, and provide reference for its research and development of new drugs.

Materials and methods

Related keywords include «active components of Polygonati rhizoma» and «pharmacological effects of Polygonati rhizoma» and have been consulted on HowNet, Pubmed, Google Academic and other websites to see the pharmacological effects of Polygonati rhizoma and its effective components.pharmacological action.

1. Studies have shown that [3] Polygonatum polysaccharide can interfere with diabetic mice induced by high-fat diet, and the results show that Polygonatum polysaccharide can reduce fasting blood glucose and fasting insulin levels in hyperglycemia mice.The research shows that [4], aging rats show obvious signs of aging than young rats, and Polygonati rhizoma can obviously

promote the functions of damaged bone marrow endothelial progenitor cells in aging rats and delay the aging process of cells.Studies have shown that [5]Polygonatum polysaccharide can inhibit Escherichia coli, Staphylococcus aureus and Garcinia. The results show that Polygonatum polysaccharide with 2.00% can inhibit Escherichia coli and Polygonatum polysaccharide with 1.00% can inhibit Staphylococcus aureus and Garcinia.

d ATP production, thus alleviating the fatigue of tired swimming mice.

2. Other pharmacological effects: Studies have shown that Polygonati rhizoma also has anti-fatigue improving learning and memory .

Results and discussion

Polygonati rhizoma has a long medicinal history, and is a commonly used dual-purpose Chinese medicine in China, which can invigorate qi, nourish yin, strengthen spleen, moisten lung and benefit kidney. In recent years, the scientific research on Polygonati rhizoma has gradually increased. The research on chemical constituents of Polygonati rhizoma mainly focuses on polysaccharides, saponins, flavonoids and other aspects, and its pharmacological effects mainly focus on the anti-aging, hypoglycemic, anti-tumor, immune regulation and fatigue relief of Polygonati rhizoma by regulating multiple targets and channels. At present, the modern pharmacological research on Polygonati rhizoma mainly focuses on Polygonati rhizoma polysaccharides and saponins, but the pharmacological effects of other components such as flavonoids, volatile oils and other compounds are few, especially the pharmacological effects of Polygonati rhizoma monomer compounds are few. Therefore, the pharmacological effects and mechanisms of other components and monomer compounds of Polygonati rhizoma should be further studied to provide theoretical basis for its subsequent development and utilization.

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TO EXPLORE PROTECTIVE MECHANISM OF ERZHI PILL ON LEARNING AND MEMORY IN D-GAL MODELMICE BASED ON SERUM METABOLOMICS

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Abstract. Erzhi pill has the effect of tonifying liver and kidney, is a classic prescription of nourishing Yin and tonifying kidney, known as «the first side of Qingshang Tonifying». The Erzhi pill is commonly used in TCM clinical treatment of AD. The experimental study shows that has anti-AD effect. Oleanolic acid, salidroside and ligustrine can improve the learning and memory ability of rats and play an anti-AD role. Although the effect of Erzhi pill on AD is obvious, the specific mechanism of action is still unclear. Metabolomics has the advantage of analyzing and exploring the relationship between endogenous metabolites and pathology. Therefore, this study was based on UPLC-Q-TOF-MS/MS technology to explore the differences in metabolic profiles between normal mice and D-gal induced aging mice. The mechanism of action of Erzhi pill against AD was analyzed comprehensively, to provide experimental basis for the treatment of AD with Chinese medicine.

Keywords: Erzhi pill; metabolomics; neuroprotective; AD; UPLC-Q-TOF-MS

Alzheimer's disease (AD) is a neurodegenerative disease associated with age-related cognitive decline. The onset of AD is slow, the course of the disease is slow, and patients will have memory loss and decreased ability to live [1]. At present, the theory of energy metabolic failure plays an important role in the theory of AD pathogenesis [2]. At present, acetylcholinesterase inhibitors are the main treatment for AD in modern medicine, but the therapeutic effect is limited, so it is of great significance to find targeted therapeutic drugs.

The kidney tonifying prescription Erzhi pill is commonly used in TCM clinical treatment of AD. The experimental study shows that Erzhi pill has anti-AD effect [3]. Although the effect of Erzhi pills on AD is obvious, the specific mechanism of action is still unclear. Therefore, this study was based on UPLC-Q-TOF-MS/MS technology, and adopted high-throughput metabolomics method combined with multivariate statistical analysis to explore the differences in metabolic profiles between normal mice and D-gal induced aging mice. The potential biomarkers and metabolic pathways of Erzhi pills after administration were observed, and the mechanism of action of Erzhi pills against AD was analyzed comprehensively, in order to provide experimental basis for the treatment of AD with Chinese medicine.

Objective

The present study study was based on UPLC-Q-TOF-MS/MS technique to investigate the effects of Erzhi pill on serum metabolic profile of D-gal model mice.

Materials and methods

Morris water maze and passive avoidance were used to evaluate the learning and memory ability of mice in each group. H&E and Nissl staining were used to observe the hippocampal neurons and Nissl bodies of mice in each group. UPLC-Q-TOF-MS technology was used to perform metabolomics analysis and multivariate statistical analysis of mouse serum to find potential biomarkers and analyze related metabolic pathways.

Results and discussion

Compared with the model group, the Erzhi pill group could significantly reverse the above learning and memory impairment ($P<0.01$), and restore the damaged neurons and Nissl bodies in the hippocampus. Metabolomics analysis found that Erzhi pill could callback 16 serum differential metabolites in D-gal model mice. The differential metabolites were involved in 10 metabolic pathways, including thiamine metabolism, vitamin B6 metabolism, arachidonic acid metabolism, Glycerophospholipid metabolism, which were all related to Alzheimer's disease. The neuroprotective effect of Erzhi pill on D-gal model mice may be closely related to altering neuroinflammation in mice and regulating energy metabolism in the brain, among other related pathways.

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EXPLORING THE OF RELATED FORMULAS BASED ON THE THEORY OF «ASENDING AND DESENDING IN AND OUT OF THE MIDDLE QI»

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Abstract. The concept of «ascending and descending in and out» is a vivid symbol of all things, and also one of the methods of dispensing medicine. Tracing its origin and flow, it can be explored through the regulation of the middle qi and qi mechanism. Zhongqi is the mechanism for transporting and transforming life. Zhongqi is the source of ascending and descending, and the spleen and stomach are the pivot of ascending and descending. The regulation of the internal organs, yin and yang, qi, blood, and body fluids is not solely dependent on its ascending and descending regulation. It is not a single visceral qi that can be generalized, but is actually the hub for the intersection of ascending and descending yin and yang, and there are no organs. The task of using prescriptions to regulate the flow of Qi and Qi is to master the physiological and pathological states of the ascending and descending movements of various organs, and to explore the characteristics of the ascending and descending movements of drugs and the compatibility of classic formulas, in order to fill their deficiencies, clear their excess, and clear their channels to eliminate their pathogenic factors.

Keywords: Huangdi Neijing; Lifting in and out; Middle Qi; Jianzhong Law; Rule of Formation

According to WHO criteria, antibiotic-associated diarrhea (AAD) means three or four episodes of liquid or watery stool during two or more days connected with antibacterial drugs intake. According to ICD-10 AAD refers to K 91.8 – «Some other disorders of the digestive organs

after medical procedures which are not classified in the other rubrics (including antibiotic-associated diarrhea)». Etiological cause of AAD development is Clostridium difficile.

One of the principles of antibacterial therapy is the principle of minimum sufficiency which is not always taken into account by physicians. Uncontrolled intake of antibacterial drugs by patients and prescription of such drugs which are not always necessary result in the development of antibiotic-associated diarrhea.

It is known that antibiotic-associated diarrhea develops very often during oral intake. The more intensively invasive methods of diagnostics and treatment are used the higher risk of its development is. The development of antibiotic-associated diarrhea may be connected with the disorder of qualitative and quantitative composition of gut organisms, pharmacological and toxic action of antibacterial drugs.

Objective

To explory its related formula formation methods has important guiding significance for clinical regulation of the true patency of the five visceral organs,based on the theory of «ascending and descending in and out» of Zhongqi,

Materials and methods

Using traditional Chinese medicine to adjust the excessive rise, fall, dispersion, and aggregation of Qi mechanism in the four ends of Zhongqi deficiency, Zhongqi stagnation, Zhongqi depression, and Zhongqi ascending and descending. Based on relevant literature from previous dynasties, the theoretical development of Zhongqi is sorted out, and according to the relevant formula rules of the theory of ascending and descending, the subtle and subtle aspects are elucidated, continuously inherited, and guided in the clinical treatment of various diseases.

Results and discussion

Zhongqi is the source of ascending and descending, and the spleen and stomach are the pivot of ascending and descending. The movement of all things in heaven and earth follows the law of ascending and descending in and out. The qi and blood of the organs circulate continuously, and the circulation of the middle qi is the mechanism for growth and development. When the temper rises, the qi of the liver and kidney also rises, and the water and wood are not stagnant; When the stomach qi decreases, the qi of the heart and lungs also decreases, ensuring that the golden fire does not stagnate. The same symptom in clinical practice can be caused by different causes.

Although the same is used to regulate the rise and fall of the middle qi, the specific treatment methods vary, and the prescriptions used also vary. It is still necessary for doctors to fully understand and comprehend the principles of promoting circulation.

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APPLICATION AND PROSPECT OF ARTIFICIAL INTELLIGENCE IN TCM DIAGNOSIS TECHNOLOGY

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Abstract. With the advent of the era of artificial intelligence (AI), the development of traditional Chinese medicine has ushered in an opportunity. Modern TCM diagnosis and treatment technology takes TCM syndrome differentiation and treatment theory as the core and modern TCM diagnosis technology as the support. With the help of artificial intelligence technology, the decision-making content of TCM diagnosis and treatment of literature data is informationalized and intelligentized.Artificial intelligence promotes the improvement and summary of the rules of TCM diagnosis and treatment, accelerates the leapfrog development of TCM diagnosis and treatment technology, solves the main problems of the modernization of TCM diagnosis and treatment mode, and promotes the modernization of TCM.

Keywords: artificial intelligence ; traditional Chinese medicine diagnosis and treatment technology

Artificial intelligence (AI) is a new technological science developed to simulate and extend human intelligence.In recent years, the integration of AI technology and medical health field has been deepening, and AI technology has been developing and maturing, which has become an important factor affecting the development of medical industry and improving the level of medical services [1]. With the advent of the era of big data, the rise of AI technology has provided strong technical support for the development of traditional Chinese medicine, brought new changes in the medical and health industry, and ushered in unprecedented opportunities for the development of traditional Chinese medicine.Traditional Chinese medicine has accumulated a huge amount of data and information for thousands of years, especially the experience of old Chinese medicine, clinical medical records and various Chinese medicine classics. Data mining helps researchers find potential associations between different data and discover rules that are difficult to find manually.Through AI technology, personalized and fragmented traditional Chinese medicine classics and clinical experience are converted into electronic data forms, so that the knowledge of traditional Chinese medicine over the years can be fully explored and expressed in a more scientific way.The diagnostic method of traditional Chinese medicine ' seeing, hearing, asking and cutting ' is the essence of traditional Chinese medicine diagnosis and treatment, and it is the bridge and basis for traditional Chinese medicine to understand diseases. The accuracy of the collection and judgment of the four diagnostic information is the key factor affecting the accuracy and efficacy of syndrome differentiation and treatment.In the field of auxiliary diagnosis of traditional Chinese medicine, with the support of AI technology, the objectification technology of four diagnostic methods represented by tongue diagnosis, pulse diagnosis and color diagnosis has gradually matured, forming a variety of auxiliary diagnosis and treatment instruments of traditional Chinese medicine such as tongue diagnosis instrument, pulse diagnosis instrument and color diagnosis instrument [2].

Although there have been many fruitful explorations in the application of artificial intelligence technology in the field of traditional Chinese medicine diagnosis and treatment, it is not difficult to find that previous studies mainly focus on the theoretical level, and computer systems are mainly used as storage data, fusion information and visualization tools, rather than truly intelligent decision support.The specific reasons are as follows : first, the standardization and datamation of the four diagnostic techniques, the support of the four diagnostic data is not enough, and the four diagnostic symptom information with too strong subjectivity has great problems in data stability, repeatability and purity, and has not realized the datamation in the true sense.Second, there is a lack of theoretical models that take into account clinical practice to guide ' decision support'. Thirdly, there is a lack of support for clinical large sample data with perfect design and combination of disease and syndrome .In summary, on the premise of the dataization of the four diagnostic information technology, combined with the clinical data of modern medicine, on the premise of the commonness of diseases and syndromes, based on data fusion and artificial intelligence technology, the data basis of TCM syndrome differentiation and treatment is effectively expanded, and it is expected to establish an intelligent syndrome differentiation and treatment method system integrating diagnosis, treatment and curative effect evaluation[3].The application of artificial intelligence technology to intelligently process a large number of data of traditional Chinese medicine and provide decision support for clinical diagnosis of traditional Chinese medicine can maximize the advantages of man-machine combination, further promote the improvement and summary of the law of diagnosis and treatment of traditional Chinese medicine, and promote the modernization of traditional Chinese medicine.

Conclusion

The development of science and technology is changing with each passing day. The new mode of AI combined with traditional Chinese medicine to assist the diagnosis and treatment of traditional Chinese medicine can promote the intelligence, informatization, standardization and modernization of traditional Chinese medicine, adapt to the trend of the development of the times, and is also the inevitable trend of the development of traditional Chinese medicine.

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CITESPACE – BASED BIBLIOMETRIC ANALYSIS OF TRADITIONAL CHINESE MEDICINE TREATMENT AFTER PCI IN THE LAST 20 YEARS

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Abstract. We searched the Chinese Network of Knowledge (CNKI) and Web of Science (WOS) databases for nearly 20 years of literature related to the treatment of percutaneous coronary intervention (PCI) with Traditional Chinese Medicine (TCM), and summarized and analyzed them with the help of CiteSpace software, in order to understand the current status of research in the field of TCM treatment of PCI, hot spots, and future development trends. A total of 1139 relevant literatures were included. The field of TCM treatment of after PCI is in a booming period, and a stable scientific research team has been formed, but the cooperation between different teams and institutions needs to be strengthened, and the research on the mechanism of nitric oxide, inflammatory response and other related mechanisms of TCM treatment of after PCI is a hot research topic of the field nowadays, and the «Data Mining Nitric oxide, inflammatory response and other related mechanisms of TCM treatment after PCI are the current research hotspots in this field, and «data mining», «clinical observation» and other research methods are the future research trends in this field.

Keywords: Percutaneous Coronary Intervention, Bibliometrics, Traditional Chinese Medicine

Coronary atherosclerotic heart disease has a high morbidity and mortality rate, which seriously jeopardizes the physical and mental health of human beings, and PCI is one of the main methods to treat acute myocardial infarction. In recent years, more and more clinical studies have confirmed the efficacy and unique advantages of TCM in the prevention and treatment of after PCI, and the number of related literature has also increased rapidly. With the help of CiteSpace software to systematically sort out the relevant literature, it helps scholars to quickly and comprehensively acquire the knowledge in the field.

Objective

To understand the current research status and research hotspots in the field of Chinese medicine for postoperative PCI in the past 20 years, and to explore the development trend of this field.

Materials and methods

CNKI and WOS databases were used as the sources of literature data acquisition, and the search period was from January 1, 2002 to July 7, 2022. Inclusion criteria were: journal papers and dissertations that were relevant to the field of TCM in the prevention and treatment of postoperative PCI. Exclusion criteria were: conference papers, research results, and secondary literature analysis. Data analysis: the included literature was processed using the visual analysis software CiteSpace 6.1.R2, with the time slice set to «1» and the node type set to authors, institutions, and keywords, respectively, to analyze and draw the corresponding knowledge graph.

Results and discussion

Finally, 1139 articles were included (CNKI 1087 articles, WOS 52 articles). The first Chinese-language article in the field of TCM for after PCI was published in 2003, and the number of articles published has been increasing year by year. The top three authors with the highest frequency were:

Gong Lihong, Ding Feng, and Shen Jianping. The institution with the largest number of articles was Beijing University of Traditional Chinese Medicine (BUTM) with 85 articles; the top three keywords with the highest frequency were: coronary heart disease, restenosis, and traditional Chinese medicine; the clustering results were: inflammatory response, cardiac function, angina pectoris, depression, nitric oxide, and internal movement of the wind; and the results of the timeline analysis showed that the field was roughly divided into 2 phases. The first phase, 2002-2008, mainly involves disease treatment methods and drug types; the second phase, 2009-2022, mainly involves mechanisms and basic research. The results of keyword emergence showed that the keyword with the highest intensity value was postmenopausal, with an intensity of 4.7; the keyword with the longest duration was combination of disease and evidence, with a duration from 2002 to 2010.

This paper summarizes the statistics of the relevant literature in the field of Chinese medicine for the treatment of after PCI. The results suggest a gradual increase in research scholars' attention to the field from 2003 to the present, but the amount of English literature published needs to be improved. There is close cooperation within each core author team, but there is a lack of connection between the teams. Most of the research institutions are TCM universities and affiliated hospitals, which is related to the fact that universities and affiliated hospitals gather a lot of academic resources and talents. However, there were fewer cooperative links between the institutions. It is suggested that cooperation and mutual benefit should be strengthened between research teams and research institutions to jointly promote the development of the field of TCM treatment of postoperative PCI. Keywords Summary Tip: The research in this field mainly includes clinical efficacy, mechanism research, real-world research, etc.; the treatment scope mainly involves coronary heart disease, myocardial infarction, restenosis, cardiac rehabilitation, etc.; the related mechanism research mainly focuses on lipids, inflammatory factors, endothelial function, etc., and the research on the mechanism of TCM in treating after PCI by regulating nitric oxide, inflammatory response, etc., is a research hotspot in this field.

Therefore, the current field of Chinese medicine in the treatment of postoperative PCI is in a period of booming development, and cooperation between various teams and institutions should be strengthened to accelerate the pace of internationalization of Chinese medicine.

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THEORETICAL STUDY ON TREATMENT OF URTICARIA WITH SUANZAOREN DECOCTION

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Abstract. Urticaria is a kind of localized edema reaction with skin wheals of different sizes accompanied with pruritus as clinical manifestation, which belongs to the category of «nettle-rash» and «rubella mass» in traditional Chinese medicine.Its occurrence is mostly related to «wind», and «wind matching liver», the internal pathogenesis is closely related to the liver. The Classic Suanzaoren Decoction can treat the deficiency of liver and blood, tonify the body of the liver and calm the movement of the liver. By regulating and nourishing the liver to strengthen the health and eliminate pathogenic factors,the wind can be eliminated and the the liver qi can be smooth,and the rash recovered.

Keywords: urticaria; Suanzaoren decoction; wind matching liver;pathogenesis

Urticaria is called «nettle-rash» and «rubella mass» in traditional Chinese medicine(TCM). Modern medicine believes that urticaria is a localized edema reaction due to dilation and increased permeability of small blood vessels of skin and mucosa, and clinical manifestations are wheals of different sizes accompanied with itching. Angioedema is present in approximately 20% of patients. Urticaria has no fixed place, sudden onset and sudden disappearance, and is easy to attack repeatedly,which belongs to the characteristics of «movable and changeable of the wind evil».This «wind evil» either from the external or from the internal.

With the change of natural social environment, living habits and mental psychology, the disease is

increasing day by day. At present, Western medicine mostly uses antihistamines, corticosteroids and other treatments, which are effective but have a high recurrence rate.However, Chinese medicine has the advantage of good efficacy and small side effects in supporting this disease.In clinical practice, Suanzaoren Decoction has a definite effect on urticaria, which is closely related to its ability to calm the liver and eliminate wind.

Objective

To explore the theory basis of the treatment of urticaria with Suanzaoren Decoction, further analysis of its etiology and pathogenesis, hoping to provide a new way for the clinical diagnosis and treatment of urticaria in TCM, in order to guide the practice of theory and improve the clinical efficacy of TCM.

Materials and Methods

The first author searched the related literatures in China Knowledge Net, Wanfang database and PubMed database with the key words of «Urticaria, Suanzaoren Decoction, etiology, pathogenesis, diagnosis and treatment».

Results and discussion

The occurrence, pathological characteristics and clinical manifestations of urticaria are closely related to «wind». Suwen •Yinyang Yingxiang Dalun said: «The east wind, wind wood, wood acid, acid liver, liver tendon.» Zhang Zhicong explained in the Huang Di Nei Jing Su Wen Ji Zhu: «The wind engenders the wood, the wood engenders the liver, and the internal and external air is connected», linking the wind, the wood and the liver closely, and there is a saying that «wind matching liver». Therefore, the incidence and performance of urticaria and liver also have intrinsic relationship.

Combined with the physiological characteristics of the liver, it is the viscera of wind and wood, the body yin is used with yang, and the liver contains blood. If the liver yin deficiency or the liver blood deficiency occurs in dysfunction, the skin will lose nourishment, and the blood deficiency generates wind, which will cause skin itching or aggravate the pathological changes. On the other hand, the occurrence of urticaria is also caused if the liver is not regulated smoothly, there is a lack of coordination and drainage, the movement of qi is not smooth, the function of zang-fu organs is out of balance, the yin and yang are out of balance, the health is out of harmony, and the external health is not solid.

Therefore, Suanzaoren Decoction can treat urticaria by regulating the liver function. In the prescription, Suanzaoren nourishes liver and blood, Chuanqiong regulates blood and nourishes liver, obtains Lingningxin and tranquilizes the mind, Zhimu nourishes yin and reduces fire,Gancao regulates the middle jiao and moderates liver.The combination of all drugs can regulate and nourish the liver to strengthen the health and eliminate pathogenic factors,so that the wind can be eliminated and the the liver qi can be smooth,and the rash recovered.

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THE INNOVATION OF TRADITIONAL CHINESE MEDICINE DIAGNOSIS

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Abstract. Traditional Chinese culture has survived for thousands of years of history, it is the development of The Times in progress at any time.But in the eyes of the public, the Chinese traditional medicine is hidebound.By analyzing the development status of modern TCM diagnosis, to discuss the progress of the innovation of traditional Chinese medicine diagnosis, will show the innovation of the traditional medicine in the eyes of the public, to promote the public to the diagnostic knowledge and understanding of innovation.

Keyword: traditional medicine, the diagnosis, innovation

As one of the four great ancient civilizations, China traditional Chinese medicine also has a history of several thousand years.Ten percent is not constant, but the traditional medicine with the development of the society and the progress of The Times, Chinese traditional medicine is also in constant updates.For in the traditional medical, want to adapt to the present society and era, will innovate.In the renewal of the traditional medicine iteration, the innovation of the diagnostic has become an indispensable part.

Objective

The purpose of this paper is to organize the Chinese traditional medicine in recent years the diagnostic methods and innovative methods, thus promotes our country academic understanding of innovative diagnostic methods, promote mutual understanding between China and traditional medicine, make the development of Chinese traditional medicine into more home health care system in China.

Materials and methods

Database statistics: Chinese literature through the National Knowledge Infrastructure (hereinafter referred to as China Knowledge network, China National Knowledge Infrastructure, CNKI), China academic journal Database (hereinafter referred to as a Database of ten thousand, China Science Periodi - CAL Database, CSPD), Chinese Science and technology periodical Database (hereinafter referred to as VIP information, Chinese Citation Database, CCD) three databases, with «traditional medicine» or diagnosis «innovation» for the search term.Retrieve published during the period of 2020 to 2023 in the literature.

Results and discussion

The process of the traditional doctors use inspection, auscultation and olfaction, inquiry, and pulse-taking and palpation, four diagnostic means, collect four diagnostic information on patients with symptoms and signs.Now many of the TCM diagnosis instrument has been applied to the research and the science of TCM clinical disease and continuous improvement and innovation. [1] Machine, and other instruments used in facial color image analysis software.Tongue diagnosis instrument from the original two-dimensional tongue image to subsequent three-dimensional color color of tongue body, from a single intelligence or local intelligence to fully automated analysis.Visits from Zhang Jiebin asked ten songs, the Ming dynasty to today's wisdom to interrogation system, artificial intelligence technology progress to improve the specific information collection efficiency and the accuracy of traditional Chinese medicine, green not only provides the convenience, but also ease the burden on the doctor of traditional Chinese medicine (TCM) for future visits standardization development provides new ideas and directions. Equipment of pulse is developing rapidly, and Polley invented the wearable bluetooth triage medical monitoring system, can pass a line connection for remote detection, detection at the same time the patient's pulse, temperature, and breathing.[2]. By complex detector by measuring the shaft hole of the twelve meridians and the contralateral laogong point between the relative conductance values, and define a set of deviation meter calculate method, with a total deviation to quantitatively measure the human body health, compared with healthy people have larger deviation.

Since the development of Chinese traditional medicine, has artificial changes from ancient to today's artificial intelligence and electronic devices, and these equipment also experienced the development, selection, development, has realized the unity of smart, modern and humane. With the development of the society and times, the environmental, social, cultural change, disease also is changing.Modern TCM diagnosis and treatment equipment should keep up with the pace of The Times, advancing with The Times, the traditional Chinese medicine diagnosis and treatment and the integration of modern medicine and science and technology, the use of western medicine inspection instrument as an extension of the four diagnosis in traditional Chinese medicine, make up for the deficiency of the «black box» theory of TCM, realize the data of Chinese and western huitong, for clinical diagnosis of traditional Chinese

medicine for intelligent decision aid support. Eventually establish a distinguishes the connotation of syndrome differentiation of TCM diagnosis and treatment equipment system, the formation and key technology involved in the medical, scientific research and production of traditional Chinese medicine specification, using modern technology to armed Chinese medicine, promote the development of modernization of traditional Chinese medicine.

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RESEARCH PROGRESS DF TCM CHARACTERISTIC THERAPY FOR CHRONIC RENAL FAILURE

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Abstract. There are some limitations in the treatment of chronic renal failure(CRF)by modern medicine.All kinds of traditional Chinese medicine characteristic therapies derived from traditional Chinese medicine thinking can delay renal failure,protect residual renal function,improve the excretion rate of metabolic waste and improve the"poisoning"state of the human body.The traditional Chinese medicine decoction,traditional Chinese medicine retention enema,colon dialysis and other therapies are commonly used in clinical treatment,and the related research is increasing.This article will briefly describe the traditional Chinese medicine characteristic therapies of CRF in recent years.

Keywords: chronic renal failure, characteristic therapy of TCM

In recent years,some progress has been made in the treatment of CRF with traditional Chinese medicine,integrated traditional Chinese and Western medicine,and various means.Many studies have also confirmed that the characteristic therapy of traditional Chinese medicine has advantages and characteristics in delaying the progression of CRF,delaying the time of starting dialysis,and improving the quality of life of patients.

Objective

To show the clinical application of traditional Chinese medicine in CRF,and to expand the treatment ideas of CRF for colleagues.

Materials and methods

The relevant literatures published over the years were sorted out and extracted, and the classification and elaboration mode was adopted. This review is based on the literature published on the Internet in China on the treatment of CRF with various traditional Chinese medicine characteristics.

Results and discussion

1.Acupoint injection therapy Jin Lixia et al.observed 60 CRF patients with spleen and kidney yang deficiency and blood stasis syndrome. The control group was treated with Bushen Xiezhuo Decoction,and the treatment group was treated with acupoint injection on the basis of it.After statistical analysis,the related observation indexes of the two groups were significantly improved,and the total clinical effective rate of the treatment group was better than that of the control group(93.3%>73.3%,P<0.05).

2.Point application therapy Chen Qixia et al.observed 60 patients with CRF nausea and vomiting. The results showed that clove cinnamon acupoint application had a curative effect on the reduction of nausea and vomiting in CRF patients, and significantly improved renal function.

3.Chinese medicine medicated bath therapy Zeng Mingyuan et al.used CRF patients as the research object. The control group was treated with western medicine. The observation group was treated with traditional Chinese medicine bath and acupoint application on the basis of the intervention of the control group. The study found that the total effective rate of the observation group (96.77 %) was much better than that of the control group (36.67 %).

4.Chinese medicine ironing therapy Liu Guoyong et al.studied 62 patients with refractory CRF. The control group was treated with conventional treatment, and the treatment group was treated with iontophoresis of Yiqi Huoxue Chinese medicine in the kidney area on the basis of the control group. Finally, the treatment group was more effective.

In view of the etiology and pathogenesis of CRF, doctors and researchers have explored many distinctive traditional Chinese medicine treatment techniques. Through a large number of clinical practices, it has been confirmed that the treatment of CRF with traditional Chinese medicine has a good clinical effect, and the reasonable configuration between various treatments will make the curative effect more impressive. As artificial intelligence technology continues to lead the comprehensive and in-depth objectification and information development of traditional Chinese medicine, the diagnosis of traditional Chinese medicine will be more comprehensive, objective and accurate, which will produce a characteristic treatment technology of traditional Chinese medicine that is more in line with the development of the times for the treatment of CRF, and then will further strengthen human understanding and thinking of CRF.

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DISCUSSION ON THE THEORY OF CHAIHU LONGGU MULI DECOCTION IN TREATING PALPITATION WITH ANXIETY AND DEPRESSION

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Abstract. Palpitations in clinical practice often occur repeatedly due to emotional fluctuations and overwork, making it difficult to heal.Chaihu Longgu Muli Decoction is a prescription from Zhang Zhongjing's « Treatise on Febrile Diseases «. Starting with the prescription mechanism, mechanism and efficacy compatibility of Chaihu Longgu Muli Decoction as well as the research application, combined with the etiology and pathogenesis of palpitation caused by anxiety and depression, the syndrome and treatment mechanism of this prescription is discussed in order to provide a theoretical basis for the treatment of palpitation by Chaihu Longgu Muli Decoction.It also provides ideas for the clinical application of traditional Chinese medicine to treat anxiety and depression.

Keywords: Palpitation ; Anxiety and depression; Theoretical discussion

Anxiety depression, also known as anxiety neurosis, with the gradual increase in the pressure of modern life and work, has become one of the most common diseases of neurosis, with emotional anxiety and depression as the main characteristics.

Palpitation refers to a disease in which the patient is conscious of heart throbbing, uneasy, and even unable to autonomic. Clinical episodes are often caused by emotional fluctuations and overwork, and are often accompanied by chest tightness,

shortness of breath, insomnia, forgetfulness, etc. In recent years, there are many studies on the use of traditional Chinese medicine to treat palpitations caused by anxiety and depression, and the effect is remarkable.

Objective

Anxiety and depression belong to emotional disease in Chinese medicine, the god hidden in the heart, including spirit, emotion, thinking, consciousness, etc., so it can be judged that emotional disease is in the heart. It can be seen that seven emotions, anxiety and depression all make the heart displaced, restless and palpitation.

Materials and methods

Chaihu Longgu Muli Decoction is based on small Chaihu Decoction, which is mainly based on reconciliation of exterior and interior, Fuzhengdispelling evil, and the pathogenic master is in Shaoyang, so as to get rid of phlegm fire, it is unnecessary to go licorice. According to the Shen Nong's Herbal Classics, keel is used to treat «convulsions» and oysters are used for «terrors», «vexation» and «anger». Keel, sweet astringent slightly cold, calming liver Yang and calming, oyster, salty cold, can restrain the mind and stop panic ; Rhubarb clear heat and stomach, cassia branch Tongxin Yang, Poria peace of mind, lead Dan sedation to help traffic heart kidney, but because of its toxic, so often to cast iron, the combination of drugs, a total of reconciliation of heat, shock and calm the work. The compatibility of Chaihu Longgu Muli Decoction is consistent with the syndrome treatment of no palpitation caused by liver depression and qi stagnation, phlegm heat disturbing the spirit and mental disturbance.

Results and discussion

To sum up, the fundamental pathogenesis of palpitation is the loss of mind, the mind is disturbed, and the disease is located in the heart, but the seven feelings are not complete, the five viscera and the six organs are abnormal, and the diet and daily living are inappropriate. Modern people have increased pressure in life and work, difficulty in emotional resolution, and anxiety and depression occur from time to time. Chaihu Longgu Muli Decoction has a solid theoretical basis and considerable clinical efficacy in the treatment of heart palpitation caused by mood failure, qi and blood disturbance, mental disequilibrium, phlegm and fire disturbance , which can effectively relieve anxiety and reduce the occurrence of heart palpitation. Modern people's demand for emotional relief is significantly increased, often due to emotional disorders, such as heart palpitations and other medical conditions, while western medicine treatment of anxiety and depression is often accompanied by other side effects, patients are often full of concerns in clinical application, while the use of traditional Chinese medicine treatment is safer and more effective. From the perspective of clinical application, the use of traditional Chinese medicine therapy to treat emotional diseases and accompanying symptoms is more acceptable to patients. Traditional Chinese medicine has a broad prospect in the treatment, improvement and prevention of emotional diseases and accompanying symptoms.

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APPLICATION PROGRESS OF ARTIFICIAL INTELLIGENCE TECHNOLOGY IN TCM

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Abstract. At present, with the progress of science and technology, the application range of artificial intelligence technology in the field of traditional Chinese medicine has also been gradually expanded. Artificial intelligence is applied to literature collation, health diagnosis and treatment, intelligent device research and development and personnel training by digitizing the ancient books of traditional Chinese medicine, the experience of physician diagnosis and treatment, and the body, and statistically analyzing and sorting the obtained data, analyzing the internal relationship, mining the core elements from multiple angles, from qualitative description to quantitative analysis. This paper discusses the integration and development of artificial intelligence technology and traditional Chinese medicine (TCM) model from three aspects: the application of TCM big data, the construction of data-based infrastructure, and the intelligent application of TCM, strengthens the inheritance of TCM culture, promotes the development of TCM diagnosis and treatment, and promotes the inheritance of TCM talents.

Keywords: artificial intelligence, TCM, application, data,technology

Artificial intelligence is a technology that uses computers to simulate some thinking processes and intelligent behaviors of people (such as learning, reasoning, thinking.planning, etc.), which is mainly used to manufacture computers similar to human brain intelligence in order to enable computers to achieve higher level applications. Scientists data the traditional medical books of traditional Chinese medicine, the practical experience of diagnosis and treatment of ancient and modern physicians and the human body (such as tongue, pulse), and enter the data into a computer. Artificial intelligence forms the brain of TCM through deep learning and analysis of algorithms. So as to achieve the purpose of assisting doctors in treatment and improving the efficacy in clinical practice.

Objective

To sort out the application progress of artificial intelligence technology in TCM diagnosis and treatment, in order to provide ideas and methods for the expanded application of artificial intelligence technology in the field of TCM.

Materials and Methods

The relevant literature published over the years was sorted out and extracted, and the mode of classification was adopted. This review is a partial overview based on the literature published on the Internet in China on the application progress of artificial intelligence technology in TCM diagnosis and treatment.

1. Qualitative description of tongue image characteristics of patients with cervical spondylosis Zhan Hongsheng[1] et al. collected tongue image pictures of 201 patients with cervical spondylosis, interpreted and discriminated the collected pictures through artificial intelligence tongue mirror technology, and analyzed tongue image characteristics. Statistical analysis showed that the tongue of the patients with cervical spondylosis had the characteristics of reddish tongue color, tooth markings, thin white and moist tongue coating, and normal sublingual collaterals, suggesting that the patients with cervical spondylosis had qi deficiency, wind-cold, phlegm dampness syndromes.

2. Data mining of the experience of famous TCM doctors Tao Zhu[2] et al. digitalized the prescriptions of famous doctors and used artificial intelligence technology to analyze the frequency of drug use, compatibility relationship, correlation strength and clustering characteristics of drugs in the prescriptions, so as to obtain the correlation between drugs and symptoms, drugs and drugs, and the results of drug pair compatibility rules. This kind of application is more scientific for the sorting of Chinese medical records, and convenient for doctors to summarize and learn the experience of famous doctors.

Results and Discussion

Practice has proved that artificial intelligence technology has a great role in promoting the development of traditional Chinese medicine. Artificial intelligence can store a large number of TCM classics for easy learning, extract the clinical diagnosis and treatment experience of famous and old TCM doctors to provide shortcuts, and clarify the pharmacology of TCM to reduce the input of resources. Even in the future, it is predicted that artificial intelligence can replace doctors in the diagnosis and treatment of patients, making human life more intelligent.

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INNOVATIVE DIAGNOSIS AND TREATMENT METHODS OF TRADITIONAL CHINESE AND WESTERN MEDICINE FOR MENOPAUSAL HYPERTENSION

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Abstract. Climacteric hypertension is a common clinical cardiovascular disease, morbidity is increasing year by year trend in recent years, clinical symptoms and easy repeatedly and difficult to cure, the serious influence of menopausal women body and the quality of life. The traditional Chinese medicine thinks this card belongs to the virtual to real, disease in liver, pathogenesis in kidney, strong disturbance is the key, and with mist, western medicine thinks its pathogenesis and ovarian function decline, a serious imbalance between endocrine function. .In this paper, from the Angle of the combination of Chinese and western medical study the etiology and pathogenesis, diagnosis and treatment, use medicine and disease prevention and control, etc. All above are as follows.

Keywords: Climacteric hypertension, Cardiovascular disease (CVD), Chinese and western medical combination, The empty mark, Ovarian function decline, High blood pressure

According to the latest ISH2022 guide to clarify the concept of climacteric hypertension.Are the inside not on the same day, repeatedly measuring blood pressure clinic systolic blood pressure 140 mmHg and (or) or clinic diastolic acuity 90 mmHg. Nearly 2 months to 2 years of menopause women appear menstrual disorders or menopause. A series of changes caused by endocrine and autonomic nerve dysfunction, leading to poor sleep, impetuous, irritability, etc., causing blood pressure fluctuations 1.

Modern medicine put forward that hypertension is a «by the interaction between genetic factor and environmental conditions of the complex polygenic diseases», think that genetic factors, living style, mental factors and endocrine disorders are associated with the onset of hypertension, the conclusion and corresponds to the overall concept of traditional Chinese medicine theory 2. And in view of traditional Chinese medicine, climacteric hypertension in liver and pathogenesis in the kidney, and rushed as a disorder is the key, and associated with mist 3. Liuli professor think that the root cause of perimenopausal women hypertension is the deficiency, namely «kidney deficient», «menstruation» failure, and found in the «modern» and «liver depression and qi» is the main cause of this virtual 4.

Menopausal women the main syndrome of hypertension patients is characterized by kidney liver depression syndrome, first establish the diagnosis and treatment method of invigorating the essence. Liver and kidney of the medicine, and in the five elements of kidney is the mother of the liver, the kidneys, Tibetan essence of life is the liver stores blood, JingXie alternate with each other.Water does not contain wood, kidney Yin deficiency can lead to liver Yang syndrone, then appeared dizziness. Women in menopause, because menstruation, kidney, and rushed as increasingly less failure, coupled with the phase of the work and life pressure is bigger, so will lead to liver storing blood and can support the work problems .

Objective

Domain.In this paper, starting from the overall concept, further analyzing the etiology and pathogenesis of TCM, western medicine of climacteric hypertension disease pathogenesis and therapeutic methods, in order to more in-depth understanding of the disease diagnosis and treatment, further guide clinical treatment and research.

Materials and methods

Diuretics: thiazide diuretics is still a big part of the patient's drug of choice. β receptors resistance lag agent: reduce the vascular tension and output, control the heart rate, and thus realize the drop in blood pressure. In terms of integrated Chinese and Western medicine treatment: XieYuPing liver soup with enalaprilat therapy can decrease the liver depression, fire type hypertension associated with anxiety disorder in patients with inflammatory indicators.

Results and discussion

In this background, through the joint of Chinese and western medicine treatment can be realized in the clinical the step-down to ease their physiological status of menopausal women is the hot topic in current medicine.

Due to the complexity of menopause women the pathological mechanism of high blood pressure, in the process of clinical diagnosis and treatment should be fully grasp the physiological characteristics of menopausal women, based on the insides, multiple factors distinguishes the certificate.

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PROGRESS IN THE APPLICATION OF TRADITIONAL CHINESE MEDICINE NURSING TECHNIQUES IN DIABETIC PERIPHERAL NEUROPATHY

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Abstract. Diabetic peripheral neuropathy (DPN) is one of the most common chronic complications of diabetes mellitus and the most common form of diabetic neurological damage,the number of incidence of diabetes mellitus can account for 40-60% of the total number of diabetes mellitus patients [1].The occurrence of DPN by a variety of factors together, very complex.Western medical treatment currently has no effective drugs,and the cost of medicine is expensive,and has certain adverse reactions.Chinese medicine has certain advantages in treating DPN.This paper provides an overview of the clinical application of TCM nursing techniques in diabetic peripheral neuropathy in recent years, summarized as follows.

Keywords: Diabetes mellitus; diabetic peripheral neuropathy; traditional Chinese medicine nursing techniques

More and more studies have shown that the implementation of various TCM nursing techniques for DPN patients and the combined use of multiple TCM nursing techniques have been noticed and recognized by patients,and the symptoms of numbness, contracture,and pain in the limbs of patients have been improved to different degrees [2].TCM nursing techniques mainly include herbal fumigation,acupoint application,acupoint injection, acupoint massage, acupuncture and moxibustion therapy, and exercise therapy.

Objective

In this study,we conducted a comprehensive and systematic search of the published literature on TCM nursing techniques for diabetic peripheral neuropathy at home and abroad, in order to provide a reference for nursing staff to select appropriate TCM nursing techniques to improve the symptoms of DPN patients.

Materials and Methods

Chinese medicine fumigation method is under the guidance of Chinese medicine theory,selecting suitable medicines to form a formula,and utilizing the steam produced by the decoction of medicines to fumigate the organism to achieve the therapeutic purpose.The fixed formula of Chinese medicine fumigation is mostly composed of medicines for activating blood circulation and removing blood stasis,medicines for dispelling wind-dampness,medicines for relieving epidemics and medicines for replenishing deficiency.It can achieve the purpose of treating DPN through the triple action of drug fumigation,immerson and heat.

Acupuncture point application is guided by the overall concept of Chinese medicine and meridian theory,through the penetration and absorption of drugs,the stimulating effect of drugs on acupoints, as well as the conduction effect of meridian points to achieve the therapeutic purpose.The medicines used in acupressure are mainly to activate blood circulation and remove blood stasis,dispel wind-dampness,and also commonly used to relieve the epidermis,tonic medicine and warming medicine.

Acupuncture point injection is a method that combines traditional acupuncture with medication under the guidance of Chinese medicine theory,and achieves therapeutic purposes by injecting medication into relevant acupoints or specific areas.

Acupressure is under the guidance of the basic theory of traditional Chinese medicine,the use of manipulation on the human body acupuncture points.Through local stimulation to achieve the treatment and prevention of disease.It has synergistic effect on DPN and is well tolerated,easy to operate and has few adverse reactions,which is worth to be widely used in the clinic.

Acupuncture is a general term for both needle and moxibustion.Acupuncture treatment,as a TCM nursing technique,can have beneficial effects on DPN patients and is safe and reliable,so it can be widely promoted and applied in the clinic.

Exercise therapy is a kind of training method that allows patients to gain whole body or local motor function unarmed,with the help of equipment or relying on their own strength,in a certain way,so as to achieve the recovery of sensory function. Exercise therapy can not only reduce the incidence of diabetes, but also improve the patient's sensitivity to insulin,so that the patient's metabolic indexes have been significantly improved,and improve the quality of patient survival [3].

Results and Discussion

TCM nursing techniques are widely used and effective in DPN patients.Nursing staff should strengthen the standardized operation of TCM nursing techniques,and continuously practice and accumulate and summarize them to ensure the safe implementation of TCM nursing techniques for DPN patients.Currently, relevant studies have problems such as small sample size,lack of long-term efficacy assessment,and lack of unified operation standardization,which limit its promotion in the clinic. Further prospective,multi-center, large-sample randomized controlled trials need to be carried out,and long-term efficacy assessment needs to be conducted to explore its mechanism of action,so as to provide scientific basis for the popularization and application of TCM nursing techniques.

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BASED ON THE CONSTITUTION OF TRADITIONAL CHINESE MEDICINE TO EXPLORE THE SUB-HEALTH STATE OF CHILDREN'S DIET

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Abstract. The biggest feature of traditional Chinese medicine diet is that it has the function of disease treatment, and takes into account many advantages of high safety. This paper summarizes the research status of sub-health state in children from the aspect of physical constitution by referring to the relevant literature of sub-health state in children.

Keywords: traditional Chinese medicine diet; TCM constitution; Sub-health in children; review

Sub-health: is a state between health and disease, usually called «predisease state». It is the result of the interaction of many factors such as low immunity, spleen and stomach disharmony. Studies show that children aged 0-18 account for about 16.6% of the total population in China, and 75.31% of them are in sub-health [1].

Objective

To sum up, the author summarized the research status of sub-health of different constitutions of medicinal diet.

Materials and methods

According to the basic theories of Yin and Yang, Qi and blood, Zang-fu organs, Professor Wang Shuchuan[2]divided the qi deficiency, blood deficiency, Yin deficiency, Yang deficiency, phlegm-dampness, Yang heat-quality, peaceful quality and special quality into eight types. Therefore, the implementation of «individualized» interventions to avoid the occurrence of childhood diseases. Traditional Chinese medicine believes that children's sub-health status is due to the lack of innate endowments and the acquired diet and

feeding and living disorders, which lead to the injury of healthy qi. Yu Chunquan [3]believes that bad life habits break the balance of Yin and Yang in the human body and cause disharmony between the spleen and stomach.Sensitive substance: Deng Yi [4]believes that the use of coriander rash drink: suitable for children with itchy skin, erythema papules or mild fever; Partial weakness: Deng Yi [5]pointed out that palpitation, dizziness, weakness and timidity should be stewed with Guizhen soup, which can supplement blood and qi; Yin deficiency: Song Yuanyuan [6] believed that tremella soup medicinal diet: nourishing Yin and moistening lung, suitable for children with dry oropharynx and cough; Yang heat: Deng Yi [7]proposed that bamboo leaf gypsum porridge: suitable for children with dry mouth and bitter mouth, upset and hot; Partial liver hyperactivity: improve children's temper, dry stool and other sub-health status. Deng Yi[8]pointed out that: lily stir-fried celery, bitter melon stir-fried dried incense effect is better; Partial deficiency of the spleen: Deng Yi[9]put forward that: Invigorating spleen and dampness tea has a good effect on children with abdominal fullness and thin body caused by low function of the spleen and stomach; Partial lung deficiency: Song Yuanyuan [10]put forward Chuanbei Qiu pear cream: It has significant effects on Yin deficiency, internal heat, dry cough with little sputum and other symptoms; Kidney deficiency: Deng Yi [11]put forward the medicinal diet for warming kidney and invigorating Yang, invigorating qi and invigorating spleen: Suoyang health tea, wolfberry sheep kidney porridge.

Results and discussion

To carry out the study of Chinese medicine on sub-health status of children can not only enrich the treatment theory of children's sub-health in our country, but also improve the treatment means of sub-health. It plays an important role in protecting children's physical and mental health and is worth inheriting and promoting.

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EXPLORING THE CHARACTERISTIC THERAPY OF HYPERLIPIDEMIA BASED ON THE THEORY OF HOMOLOGY OF MEDICINE AND FOOD

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Abstract. Hyperlipidemia is a pathological state of lipid metabolism disorder caused by various reasons, manifested by increased serum cholesterol,triglycerides, low-density lipoprotein cholesterol,levels and decreased serum high-density lipoprotein cholesterol .Under the rise of living standards, human life has changed greatly, so the number of hyperlipidemia is increasing rapidly and Become younger in average age. Hyperlipidemia is one of the most common risk for cardiovascular disease. People's health status are threatened by dyslipidemia seriously. So the point is how to safely and effectively treat hyperlipidemia is the focus of current research. The same origin of medicine and food is not only a major feature of traditional Chinese medicine, but also in China. Medicine and Food Homoeopathy is not only a major feature of traditional Chinese medicine , but also an vital part of diet and health care in China. Green, safe and free of toxic side effects are the advantages of homologation of food and medicine, which are closely watched and appreciated.

Keywords: hyperlipidemia, medicine and food homology, traditional Chinese medicine, treatment, diet health, medicine and food homologous products

With the improvement of people's living standard, the blood lipid level of Chinese is increasing continuously, and the prevalence rate of dyslipidemia in Chinese adults has reached 40.40% [1]. Since 1979, cardiovascular disease has become the leading cause of death in adults in China. Studies have shown that hypercholesterolemia will increase cardiovascular disease events by 14% [2] From 2010 to 2030, dyslipidemia seriously threatens people's health status and has attracted great attention from the social medical community in China. How to prevent and treat hyperlipidemia safely and effectively is the focus of scholars. Modern medicine believes that most diseases can be prevented and treated through diet. The same substances of medicine and food have the dual advantages of edible and medicinal use, and gain the advantages of green, safe and non-toxic side effects, which have been widely concerned and recognized by people. The characteristics of stable efficacy, small adverse reactions and more acceptance by patients in the regulation of blood lipid, it is the hot topic of current research [3].

Objective

The paper will introduce the concept, application of the homology of medicine food, the regulation of the blood lipid in patients with hyperlipidemia, promote the application of the prevention and treatment of hyperlipidemia and cardiovascular and cerebrovascular diseases, and provide some new ideas and methods for the treatment of hyperlipidemia with traditional Chinese medicine.

Materials and Methods

The homology of medicine and food means that food and medicine have the same source, which can be applied to practice under the guidance of traditional Chinese medicine theory.»Food and nourishing» diet «,» food therapy «and» medicated diet «are the concrete embodiment of Chinese traditional» medicine and food « thoughts, which are the daily health diet methods that people constantly summarize in production and life. People use «food health» health care, the application of «food therapy» to treat diseases, through «medicated diet» to achieve the dual purpose of diet health and treatment. At present, the ingredients used for hyperlipidemia mainly include burdock, red yeast, hawthorn, lotus leaf, cassia seed, cassia seed, multiflorum, Pu'er tea, etc. The ancient books of traditional Chinese medicine and reports in recent years have proved the exact curative effect [4]. In addition, traditional Chinese medicine food therapy not only regulates blood lipid, but also has a unique curative effect of improving patients' physical fitness [5].

Results and Discussion

At present, there are many reports of medicated diet therapy used in hyperlipidemia, which proves that medicated diet therapy has a powerful lipid-lowering effect. However, currently for food homologous formula research reported less, the future guided by the theory of traditional Chinese medicine, research and development has the effect of lipid food homologous formula, from the mechanism, clinical curative effect, in order to develop the curative effect, cheap, convenient food homologous dosage form, really make medicated diet to the public, serve the public.

As a resultJ¬the treatment of medicine and food homologous effect in hyperlipidemia is accurate, and the development of various kinds of drug and

food homologous products with antiblood lipid effect is the hot spot in the years to come.

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APPLICATION OF EVIDENCE-BASED NURSING IN PATIENTS WITH PSORIASIS VULGARIS

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Abstract. For patients with psoriasis vulgaris, the corresponding nursing work is also very important.The development of evidence-based nursing for patients with psoriasis vulgaris can provide patients with nursing services based on the latest, most reliable and effective scientific evidence, which is of great significance for the improvement of clinical status and treatment compliance of patients with psoriasis vulgaris.

Keywords: psoriasis vulgaris,Evidence-based nursing, summarize

Psoriasis, commonly known as «psoriasis», is a chronic inflammatory skin disease, which is more common and easy to relapse. [1] In recent years, due to the change of lifestyle and the increase of risk factors, the incidence of psoriasis has increased year by year, and relevant studies show that as of 2017, the global psoriasis patients have more than 60 million, ranking first in the number of various skin diseases. [2] The main treatment modalities for psoriasis include topical treatment mainly with glucocorticoids, vitamin D derivatives and calcineurin inhibitors, but there are many side effects. [3] As a chronic disease, psoriasis requires long-term care to prevent complications and improve quality of life.As a new nursing intervention, the application of evidence-based nursing in psoriasis vulgaris is summarized as follows.

Chen Limei et al. included 80 patients diagnosed with psoriasis from January 2019 to December 2019 as study samples, and were divided by random odd-even number method, 40 of which were given routine care as control group;[4]The other 40 patients in the experimental group were given evidence-based care. The results showed that the scores of disease cognition, SF-36 scores and satisfaction in the experimental group were higher than those in the control group, with significant differences, indicating that providing evidence-based care for psoriasis patients can improve their disease cognition and improve their quality of life. Shang Xiaomei et al. conducted an experimental study by collecting 28 patients with psoriasis from May 2018 to May 2019. All patients were evenly divided by digital table method, with 14 cases in the reference group and 14 cases in the research group, respectively. [5] The reference group was given routine nursing, and the study group was given evidence-based nursing. The results showed that the psychological function scores, physiological function scores and social function scores of the study group were significantly higher than those of the reference group, with statistical significance ($P < 0.05$).It indicates that the application of evidence-based nursing is beneficial to optimize the skin care management of patients with psoriasis.Liang Huiyi et al. collected 80 patients with psoriasis vulgare for research, including 40 patients in the control group and 40 patients in the observation group. The results showed that the QOL score and satisfaction rate of patients in the observation group after nursing were higher than those in the control group, while the PSAI score and recurrence rate were

lower than those in the control group, indicating that evidence-based nursing can effectively improve the symptoms and satisfaction of patients with psoriasis and reduce the recurrence rate. [6] Bai Meirong and other researchers conducted a questionnaire survey on 57 patients with psoriasis and implemented evidence-based nursing intervention, and the results showed that the level of anxiety and depression in patients was significantly reduced. [7] The results show that evidence-based nursing can control patients' anxiety and depression well and promote the improvement of the disease.

In summary, evidence-based nursing methods have significant effects in alleviating clinical symptoms, reducing recurrence rate and improving quality of life in patients with psoriasis vulgaris, reducing the severity of skin lesions, reducing the area of skin lesions, and playing a role in treating the disease and preventing recurrence.[8]

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RESEARCH PROGRESS OF EXERCISE REHABILITATION IN THE TREATMENT OF SENILE CHRONIC HEART FAILURE

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Abstract. Chronic heart failure is a syndrome with a variety of clinical symptoms and signs, which increases year by year with age. Chronic heart failure is the main reason for hospitalization of patients over 65 years old. Oral drugs are the main treatment. Long-term medication not only harms the liver and kidney function of patients, but also causes certain economic pressure. Cardiac exercise rehabilitation therapy has the advantages of low cost, high safety and easy tolerance, and can be accepted by most patients with chronic heart failure. This paper summarizes the research progress of cardiac exercise rehabilitation and elderly patients with chronic heart failure by means of literature retrieval, in order to provide reference for the exercise rehabilitation of elderly patients with chronic heart failure.

Keywords: chronic heart failure; elderly; exercise rehabilitation

With the aging of the population and changes in lifestyle, the global incidence of chronic heart failure is gradually increasing. Chronic heart failure (CHF) is a syndrome with many different clinical symptoms and signs caused by cardiac dysfunction. at present, the treatment of chronic heart failure is mainly oral drugs combined with controlling fluid intake, and the safety of exercise rehabilitation is high. it can improve the exercise tolerance of elderly patients with chronic heart failure, improve their living conditions, and reduce the rehospitalization rate and mortality of mild and moderate patients.

Objective

To summarize the research progress of cardiac

exercise rehabilitation in elderly patients with chronic heart failure in order to provide reference for clinical treatment.

Materials and methods

More than 30 articles on the relationship between senile exercise rehabilitation and chronic heart failure were searched, and cardiac rehabilitation was divided into traditional Chinese medicine exercise rehabilitation and modern medical rehabilitation, thus summing up the effect of exercise rehabilitation on senile chronic heart failure.

Results and discussion:

The exercise rehabilitation methods of traditional Chinese medicine include Taiji, Baduanjin and Qigong. Long-term practice of Taiji, Baduanjin and Qigong can significantly reduce oxygen consumption, improve exercise ability and improve quality of life of elderly patients. Modern medical exercise rehabilitation forms of aerobic exercise, resistance exercise and respiratory exercise can reduce ventricular remodeling in elderly patients, improve cardiopulmonary function, increase venous blood reflux, enhance cardiac output, and maintain stable blood pressure. slow down the heart rate at rest. Exercise rehabilitation can improve the living state of patients with chronic heart failure, reduce anxiety and depression, improve sleep quality and alleviate psychological disorders. It can be seen that exercise rehabilitation is an economical and effective treatment for elderly patients with chronic heart failure. Safe and effective treatment can significantly improve the quality of life of the patients.

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THE ROLE OF THE PROBIOTIC PREPARATIONS IN LIVER CIRRHOSIS TREATMENT

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Abstract. Liver cirrhosis is one of the most prevalent chronic liver diseases worldwide. In addition to viral hepatitis, diseases such as steatohepatitis, autoimmune hepatitis and sclerosing cholangitis can also lead to cirrhosis. Moreover, alcohol can cause cirrhosis on its own and exacerbate chronic liver disease of other causes. The treatment of cirrhosis can be divided into addressing the cause of cirrhosis and reversing liver fibrosis. To this date, there is still no clear consensus on the treatment of cirrhosis. Recently, there has been a lot of interest in potential treatments that modulate the gut microbiota for the treatment of cirrhosis. According to recent studies, modulation of the gut microbiome by probiotics ameliorates the progression of liver disease. This paper summarizes the role and effects of the gut microbiome in cirrhosis based on clinical studies and experimental on probiotics, prebiotics, and synbiotics.

Keywords: Liver Cirrhosis, gut microbiota, probiotic

Liver cirrhosis is defined as the late stage of liver fibrosis caused by several forms of liver disease and conditions, including hepatitis and chronic alcoholism.It results from excessive production of extracellular matrix under chronic injury.This can lead to serious, life-threatening complications such as bleeding, liver failure, or encephalopathy. The only way is to manage symptoms and complications, in addition to slowing the progression of cirrhosis.

The gut microbiota in the human digestive tract consists of bacteria, protozoa, fungi, archaea, and viruses.It is responsible for preventing and eliminating the invasion of pathogens, in addition to maintaining the balance of the immune system and preventing autoimmunity.The gut microbiota plays an important role in the pathophysiology of cirrhosis. Changes in gastrointestinal functions, including malabsorption and small intestinal bacterial overgrowth, is common with concomitant portal hypertension in cirrhosis patients.

Intestinal bacterial overgrowth was described in approximately one-third of patients with alcoholic cirrhosis, ascites or advanced liver dysfunction. The main causes are considered to be anchylosis and hypochlorhydrosis, a decrease in IgA secretion and malnutrition caused by liver dysfunction,

and possibly alcoholism. Also, the decrease in intestinal motility associated with cirrhotic liver damage facilitates bacterial overgrowth in the small intestine. The impaired immune mechanisms of the mucous membrane of the small intestine facilitating bacterial overgrowth can be one explanation of the repeated and common infections in patients with liver cirrhosis.

Probiotics were originally defined as "microorganisms causing growth of other microorganisms", and later on as "live microorganisms that cause or support the beneficial balance of autochthonous microbial population of the gastrointestinal tract (GIT)". These microorganisms do not have to be an essential permanent component of the GIT, but should have a "beneficial influence on the general and health status of an individual". Current studies have shown that probiotics regulates the gut microbiota by promoting the growth of beneficial bacteria and reducing harmful bacteria in the gut.Carbon tetrachloride (CCl4) is typically used to create models of liver fibrosis and cirrhosis. In a study using CCl4 injection to induce liver cirrhosis in mice, mixture of S. cerevisiae and L. acidophilus protected mice from inflammation, hepatic oxidative stress by reducing MAPK signaling and increasing SIRT1 signaling. In a human study, randomized patients were given VSL#3 probiotics for 6 months. Patients who received probiotics were associated with decreased hepatic encephalopathy incidence, and child–pugh score (CTP) and model for end-stage liver disease scores were also reduced.In another study, Bifidobacterium breve, L. acidophilus, L. plantarum, L. paracasei, L. bulgarius and Streptococcus thermophilus treatment of patients with hepatic encephalopathy improved CTP score and psychometric hepatic encephalopathy scores.

The fact that liver cirrhosis is related to the microbiome and the possibility that it can be treated by controlling the microbiome is expected to affect the development and health improvement in the medical field in the future. Therefore, it is necessary to evaluate the manipulation of the intestinal microbiota in the context of liver cirrhosis.

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BASED ON THE THEORY OF TRADITIONAL CHINESE MEDICINE TO EXPLORE THE THERAPEUTIC MEDICINAL DIET OF COVID-19 SEQUELAE

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Abstract. Currently, treatment for COVID-19 patients is mainly targeted at the onset of the disease. However, after patients have been cured and discharged from hospital, they still suffer from various sequelae, which are mainly manifested in the nervous system, circulatory system, respiratory system, reproductive system and psychological and cognitive disorders.

Keywords: Medicinal food. COVID-19; Sequela. TCM theory; rehabilitation

Objective

Although COVID-19 has been emerging for a long time, the understanding of it is not yet comprehensive, and a large number of TCM medicated diet scholars have put forward many views. This paper will introduce the concept of COVID-19, the concept of medicated diet, the common sequelae of COVID-19, and the improvement of medicated diet on the sequelae of COVID-19, so as to provide theoretical basis for improving the treatment of the sequelae of COVID-19 by TCM medicated diet.

Materials and methods

In the recovery period of the novel coronavirus pneumonia, the medicated diet for its sequelae

needs to be treated dialectically. At present, for the mild and ordinary convalescent patients, it can be divided into spleen and stomach Qi and Yin deficiency syndrome, spleen and stomach Yin deficiency syndrome, spleen and stomach weakness syndrome. For patients with severe or critical illness in the recovery period, it can be divided into phlegm-heat blocking lung syndrome, lung bi moving asthmatic syndrome, lung heat-fluid injury syndrome, spleen and kidney Yang deficiency syndrome. The viscera involved are mainly lung, spleen, stomach and kidney [1]. In the rehabilitation period of patients, different directions of medicinal diet treatment can be carried out according to different syndrome types. At present, the traditional Chinese medicine treatment of patients recovering from COVID-19 in various places takes tonifying spleen and lung as the starting point. According to investigations, the method of supporting soil and generating gold can effectively improve the clinical symptoms and restore the immune function of patients in the convalescence stage of COVID-19 [2].

During the recovery period of COVID-19 patients, supplementing lung and supplementing spleen medicinal diet can be selected as supplementing spleen cake, which has the effect of supplementing qi and strengthening spleen and preventing diarrhea. The ingredients are stir-fried white art 30g, dried ginger 6g, jujube paste 150g, flour 300g. The method is to grind the fried white art and dried ginger into a fine powder, make a dough with jujube paste and flour, and roll it into a pancake for eating [3]. This formula is beneficial to the improvement of sequelae of respiratory system by invigorating qi and invigorating spleen, keeping jujube mud warm and invigorating spleen and producing lung gold.

There are two sequelae of fatigue and muscle weakness in patients with COVID-19. Traditional Chinese Medicine believes that the pathogenesis is mainly positive deficiency and evil obsession, with Qi deficiency as the core pathogenesis . For the symptoms of Astragalus Tangmi drink can be selected, the formula is Astragalus 20g, orange peel 12g, windbreak 10g, aster 128g, pinellia 10g, ginger 9g, honey 30g. The method is to fry the herbs and ginger water twice, remove the slag, combine the filtrate, and add it into the honey. In this prescription, the return of astragalus to liver channel and spleen channel can replenish the qi of spleen and lung and enhance the immunity of the body; the return of wind to bladder, liver and spleen channel, and the removal of pathogenic factors through superficial treatment; the combination of the two drugs with Tori and solid surface can remove pathogenic factors without damaging Yang, which can play a better role in preventing and controlling diseases .

Results and discussion

In epidemic prevention and control and post-recovery treatment, the TCM program has proposed a special plan for the global protest, and medicinal diet, as a treasure part of Chinese medicine theory, can play a crucial role in the recovery of patients. Medicinal food has low economic cost in traditional Chinese medicine rehabilitation, and patients can make it at home and have high compliance. It can help patients recover better. I believe that as TCM continues to enrich the content of epidemic diseases and accumulate experience in the treatment of novel coronavirus pneumonia, TCM food therapy and medicinal diet will definitely contribute to the strength of medicinal diet with Chinese characteristics to the recovery of the epidemic in the world.

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CLINICAL OBSERVATION ON THE TREATMENT OF KNEE OSTEOARHRITIS BY JINHUOBU NEEDLING TECHNIQUE

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Abstract. Objective To observe the effect of Jinhuobu needling technique on the knee osteoarthritis and evaluate its clinical efficacy. Methods 70 patients were randomly divided into two groups: the observation group (Jinhuobu needling technique group) and the control group (Uniform reinforcing -reducing method group). Liangqiu (ST34), Zusanli (ST36), Yanglingquan (GB34), Yinlingquan (SP9), Xuehai (SP100 were selected. The two groups were treated once a day for 50 minutes, 12 days for a course of treatment, two courses of continuous treatment. After treatment, clinical symptom score, VAS score were used to evaluate the efficacy of the two groups. Results After the treatment, the clinical symptom scores and the VAS scores of the two groups were significantly reduced, and there was statistically significant difference between the two groups (P<0.05). The total effective rate of the treatment group was 90.9%, the total effective rate of the control group was 84.3%, the difference was statistically significant (P<0.05). Conclusion Jinhuobu needling technique can alleviate the clinical symptoms of the patients, relieve pain ,and improve functional activity. The treatment effect of Jinhuobu needling technique is better than Uniform reinforcing-reducing method.

Keywords: Jinhuobu needling technique; Uniform reinforcing -reducing method group; Knee Osteoarthritis; acupuncture method; Great Compendium of Acupuncture and Moxibustion

Knee Osteoarthritis is a chronic degenerative disease whose main clinical manifestations are pain and dysfunction of the knee joint.This disease has become a common and frequently occurring disease worldwide. Acupuncture therapy has obvious advantages in efficacy, safety and economic cost, and is widely accepted by patients. This therapy can relieve pain, improve the function of knee joint, and has a good effect on the treatment of knee Osteoarthritis.

Objective

This research project is located in Heilongjiang Province, with a cold climate. Therefore, therapeutic method adopts Jinhuobu needling technique. This study is intended to provide a safe and effective treatment method for the clinical treatment of Knee Osteoarthritis.

Materals and methods

70 patients were randomly divided into two groups: the observation group (Jinhuobu needling technique group)and the control group (Uniform reinforcing-reducing method group). The two groups were treated once a day for 50 minutes, 12 days for a course of treatment, two courses of continuous treatment.In both groups. Liangqiu (ST34), Zusanli (ST36), Yanglingquan (GB34), Yinlingquan (SP9), Xuehai (SP10) were selected.

The Control group: Adopting uniform reinforcing-reducing method. Insert the needle into the appropriate depth, using slow speed and gentle force, while twisting and inserting, lifting and inserting with equal force, amplitude, and frequency. Pay attention to the twisting angle between 90°-180°. The observation group: Adopting Jinhuobu needling technique .Divide the depth of acupoints into three parts: shallow, medium, and deep. Instruct the patient to exhale in their mouth and quickly insert the needle as they exhale. The piercing process is divided into three layers: shallow,medium,and deep. Continuously insert and gently lift each part three times, making the patient feel a sense of heat. At the same time, it can be combined with the scraping method (using the thumb to scrape the needle handle downwards).

Results and discussion

After the treatment, the clinical symptom scores and the VAS scores of the two groups were significantly reduced, and there was statistically significant difference between the two groups .The total effective rate of the treatment group was 90.9%, the total effective rate of the control group was 84.3%.Acupuncture therapy, as one of the characteristic therapies of traditional Chinese medicine, is increasingly favored by patients due to its long-lasting efficacy, safety, and no side effects. With the deepening of experimental and clinical research, it has been confirmed that acupuncture can improve microcirculation, relieve pain, and regulate the expression of inflammatory mediators .The acupuncture method of Jinhuobu needling technique is a classical compound acupuncture technique, which can be seen in Yang Jizhou's Great Compendium of Acupuncture and Moxibustion .It is a compound technique that generates heat during the operation. This acupuncture method can warm and unblock meridians, disperse the sense of cold and relieve pain. From the perspective of the nature of acupuncture sensation, modern research suggests that acupoints in muscles often exhibit a feeling of

soreness and distension [1].It is generally believed that Jinhuobu needling technique can increase the temperature of the skin on the acupuncture side. Meanwhile, all acupoints are located around the knee joint, with rich muscles at the acupoints, which has the feasibility of applying Jinhuobu needling technique. The acupuncture sensation can directly reach the disease site, playing a close therapeutic role of «where the acupoints are, where the main treatment is».In terms of mechanism,KOA is a chronic disease that involves articular cartilage and surrounding tissues. Multiple inflammatory mediators participate in the formation of KOA and exacerbate the damage and lesions of cartilage, subchondral bone, and soft tissue. Acupuncture can increase local blood circulation, reduce tissue cell edema, and alleviate inflammation in local tissues.The experimental results of Wang et al. showed that acupuncture can reduce IL-1β and TNF- α in KOA rat , reduce the production of matrix metalloenzymes, and promote the absorption of knee joint inflammation [2]. Another mechanism of acupuncture is to improve the Internal environment and microcirculation of the knee joint. Acupuncture of acupoints around the knee joint can improve bone pressure, relieve joint adhesion, accelerate the metabolism of joint cartilage, promote the discharge of metabolic waste, and alleviate cartilage degeneration through neuromuscular regulation.

Conclusion Jinhuobu needling technique can alleviate the clinical symptoms of the patients, relieve pain ,and improve functional activity. The treatment effect of Jinhuobu needling technique is better than Uniform reinforcing-reducing method.

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CLINICAL STUDY ON TREATMENT OF HPV INFECTION IN DAMPNESS-HEAT POURING DOWN SYNDROME USING XIAOYOU DECOCTION AND ITS EFFECT ON HPV E6/E7

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Abstract. In this study, Xiaoyou decoction combined with You Jingan was used as a therapeutic method to observe the clinical effect of Xiaoyou decoction combined with You Jingan on HR-HPV infection of damp-heat downward injection type and the effect on HPV E6/E7 mRNA, reflect the advantages of traditional Chinese medicine in the treatment of HPV and improve cervical lesions. On the basis of the analysis it was noted that Xiaoyou decoction could improve the syndrome score of patients, increase the reversal rate of CIN1, improve cervical lesion tissue and significantly reduce the expression of E6/E7 mRNA.

Keywords: HR-HPV Infection, Clinical Observation, HPV E6/E7 mRNA

Cervical cancer is the most common malignant tumor of female reproductive system, the incidence and mortality of cervical cancer in China account for about 1/3 of the world, which has brought serious impact on patients, families and society [1]. Cervical intraepithelial neoplasia (CIN) is a precancerous lesion closely related to cervical cancer. Different grades of CIN have different risks of developing invasive cancer. Usually, most patients with low-grade CIN will reverse to normal or maintain CINI [2-3]. However, studies have shown that persistent HR-HPV (high-risk human papillomavirus), which was related to immune regulation, was associated with the development of invasive cancer. High-risk Human Papilloma Virus infection will lead to the progression of CINI lesions, and the higher the CIN grade, the higher the probability of developing into cervical invasive cancer [4].

At present, there was no standardized treatment plan recommended for persistent HR-HPV infection, so the treatment of HR-HPV persistent infection and the prevention of cervical cancer have become one of the research topics for many clinicians. Relevant scholars found through clinical studies that the treatment of persistent HR-HPV infection with integrated Chinese and western medicine has a good advantage, with outstanding clinical effect and significant curative effect.

Objective

To observe the clinical effect of Xiaoyou decoction combined with You Jingan on HR-HPV

infection of damp-heat downward injection type and the effect on HPV E6/E7 mRNA, reflect the advantages of traditional Chinese medicine in the treatment of HPV and improve cervical lesion.

Materials and methods

80 patients with HR-HPV infection were randomly divided into two groups: Group A (40 cases treated with Xiaoyou decoction combined with You Jingan external use) and Group B (40 cases treated with You Jingan external use). The scores of TCM syndromes, HPV DNA conversion rate, CIN I reversal rate, and detection of HPV E6/E7mRNA expression were compared between the two groups of patients before and after treatment.

Results and discussion

There was no statistically significant difference between the two groups in terms of baseline information and observation indexes before treatment (P>0.05), and the groups were comparable. The scores of TCM syndromes in the two groups were improved after treatment and before treatment. The negative conversion rate of HPV DNA and the reversion rate of CIN I of treatment group was significantly higher than that of control group (P< 0.05). The decreased level of HPV E6/E7 mRNA in Group A was significantly lower than that in the control group (P< 0.001).

HR-HPV positive patients were mostly caused by dampness-heat flow. The composition of this medicine is: Tufuling 30 g, kuh-seng 30 g, golden cypress 25 g, lithospermum 25 g, fructus cnidii 20 g, subprostrate sophora 25 g, radix stemona 25 g, fructus Carotae 20 g. Soak 1 dose of the above traditional Chinese medicine in water for 2 hours, and then fry it into 100ml per bag for use. Pour 100ml of the Xiaoyou decoction into the vaginal doucher to rinse the lesions of the cervix. You Jingan was used in combination with Xiaoyou decoction, and was used after Xiaoyou decoction washed the cervix for a while. The method of administration was the same as that of the control group, which should be used 3 days after the end of menstruation, once every other day, 10 times a month, for continuous treatment of 3 menstrual cycles. During the treatment, fatty, sweet, spicy and stimulating things were prohibited. The treatment principle of dry dampness, clearing heat and detoxification, promoting blood circulation and relieving pruritic. It can improve the pathogenesis of HR-HPV infection. This prescription could regulate the immune balance of the body, improve the ability of patients to clear HPV virus, reduce the degree of local inflammatory response.

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THE CLINICAL EFFECT OF NECK-TYPE CERVICAL SPONDYLOSIS BY ROW ACUPUNCTURE BETWEEN FENGCHI AND FENGMEN

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Abstract. Cervical cervical spondylosis is the early stage of cervical spondylosis, acupuncture treatment in this stage is of great significance, the routine is mostly based on the cervical spine pinch point, but the author's clinic found that in the outside of the pinch point, the row of stabs on the line of Fengchi and Fengmen has a better therapeutic effect.

Keywords: Fengchi acupuncture point; Fengmen acupuncture point; Row acupuncture method; Acupuncture treatment; Neck-type cervical spondylosis

With the wide and frequent application of electronic products such as cell phones and computers, the prolonged poor posture of the head and neck makes the incidence of cervical spondylosis increase year by year, and there is a trend of low age. Therefore, it is extremely important to find an effective treatment for early intervention.

Objective

To observe the clinical efficacy of row acupuncture on the line between Fengchi and Fengmen for the treatment of neck-type cervical spondylosis and further optimize the treatment plan of acupuncture for neck-type cervical spondylosis.

Materals and methods

Sixty patients with neck-type cervical spondylosis were divided into a treatment group and a control group, with 30 patients in each group. The treatment group: main points: Fengchi (both sides), Fengmen (both sides), three needles in equally spaced rows on the line between Fengchi and Fengmen (pained side); supporting points: Waiguan (both sides), Houxi (both sides). Operation: Fengchi point to the direction of the tip of the nose straight stab into the needle about 25-35mm, Fengmen point obliquely into the needle about 10-20mm, according to the painful part of the neck, arrange three needles at equal intervals on the connecting line between one or both Fengchi point and Fengmen poin, these three needles slightly to the direction of the spine oblique stab into the needle about 15-25mm, Fengchi, Fengmen and its inter-row acupuncture points into the needle after getting gas are performed twisting lifting insert diarrhea method; Waiguan, Houxi straight stab into the needle about 10-20mm, into the needle after getting gas are twisted. The control group: main points: Fengchi (both sides), Tianzhu (both sides), and cervical pinch points (C4, C5, C6, C7, both sides); supporting points: same as the treatment group. Operation: straight acupuncture into the Tianzhu point about 10-20 mm, and oblique acupuncture into the cervical spine point about 15-20 mm in the direction of the spine, all twisting lifting and inserting the diarrhea method, the rest of the acupuncture points operated the same as the treatment group. Both groups were treated with acupuncture once daily for 2 weeks. The Visual Analog Scale (VAS)[1] was used before and after treatment to evaluate the improvement of pain and the Neck Disability Index (NDI) [2]to evaluate the improvement of cervical dysfunction, and the clinical efficacy of the two groups was compared by the reduction rate of VAS score and DNI score.

Results and discussion

VAS score and NDI score of patients in both groups: VAS score and NDI score of patients in both groups decreased significantly after treatment than before treatment ($P<0.01$), and the decrease in VAS score and NDI score after treatment was significantly greater in the treatment group than in the control group ($P<0.05$).Evaluation of clinical efficacy of the two groups: Comparison of analgesic efficacy, the apparent efficiency rate of the treatment group was 63.33%, and the total effective rate was 96.67%, while the apparent efficiency rate of the control group was 33.33%, and the total effective rate was 90.00%, with significant differences between the two groups ($P<0.05$); Comparison of overall efficacy, the healing and the apparent efficiency rate was 53.33% and the total effective rate was 93.33% in the treatment group, while the healing and the apparent efficiency rate was 23.33% and the total effective rate was 83.33% in the control group, with significant differences between the two groups ($P<0.05$).

Thus, the clinical efficacy of the row acupuncture on the line between Fengchi and Fengmen is better than that of the conventional acupuncture method in the treatment of neck-type cervical spondylosis.

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CLINICAL OBSERVATION ON THE TREATMENT OF PHLEGM AND FIRE STAGNATION TYPE NEUROGENIC TINNITUS WITH XIEHUO ANSHEN ACUPUNCTURE MANIPULATION

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Abstract. The clinical observation results of the acupuncture team of Heilongjiang University of Chinese Medicine on patients with Phlegm and fire stagnation type neurogenic tinnitus for more than one year: the team used the Xiehuo Anshen acupuncture manipulation to treat Phlegm and fire stagnation type neurogenic tinnitus, and found through statistical analysis that the Xiehuo Anshen acupuncture manipulation has a good effect on the treatment of Phlegm and fire stagnation type neurogenic tinnitus, which provides a new reference for the clinical treatment of neurogenic tinnitus.

Keywords: Xiehuo Anshen, Neurogenic tinnitus, Acupuncture treatment

Neurogenic tinnitus belongs to the category of «tinnitus» in traditional Chinese medicine, which refers to the patient's self-conscious ear of cicada chirping, hissing and other single or mixed sounds in the ear without external stimulation, and severe cases may be accompanied by anxiety, sleep disorders and other symptoms, seriously hindering the patient's quality of life. Epidemiological studies have shown that the prevalence of tinnitus in different countries ranges from 10% to 15% [1], which is a common clinical disease.

Western medical studies have shown that neurogenic tinnitus has diverse etiologies and complex pathogenesis, and it is difficult to establish a direct correlation with the occurrence of its disease [2]. At present, Western medicine has no advantages in the treatment of neurogenic tinnitus, and clinical practice shows that [3] acupuncture has a definite effect, safety and stability, which fully reflects the advantages of traditional Chinese medicine in the treatment of neurogenic tinnitus.

Objective

To observe the clinical efficacy of Xiehuo Anshen acupuncture manipulation in the treatment of Phlegm and fire stagnation type neurogenic tinnitus.

Materials and methods

Sixty patients with Phlegm and fire stagnation type neurogenic tinnitus were divided into 30 cases in the treatment group (shedding 1 case) and 30 cases in the control group (shedding 2 cases) according to the random number table method, And the treatment group was treated with Xiehuo Anshen acupuncture manipulation while the control group was treated with conventional acupuncture method. The patients in both groups received treatment once a day, and each time the needles were left for 30 min, and 7 days was a course of treatment, with a total of 3 courses of treatment. The Tinnitus Evaluation Questionnaire (TEQ) scores, Self-Rating Anxiety Scale (SAS) standard scores, and Tinnitus Handicap Inventory (THI) scores of patients in both groups before and after treatment were compared, and thus the clinical efficacy was evaluated, and the clinically obtained data were statistically analyzed by SPSS22.0.

Results and discussion

There was no statistically significant difference between the two groups in terms of baseline information and observation indexes before treatment (P>0.05), and the groups were comparable; Intra-group comparison of TEQ scores, SAS standard scores and THI scores before and after treatment in both groups, the scores were lower after treatment than before treatment, and the differences were statistically significant (P<0.05); The TEQ scores, SAS standard scores and THI scores were lower in the treatment group than in the control group after treatment between the two groups, and the differences were statistically significant (P<0.05); The clinical efficacy of the two groups was evaluated, the total effective rate of the treatment group was 89.66%, and the total effective rate of the control group was 75.00%, and the difference was statistically significant (P<0.05).

Nowadays, many factors such as stress, and eating habits are very easy to cause phlegm and fire stagnation type diseases in TCM differentiation. phlegm turbidity and internal growth, stagnation and fire or liver and gallbladder fire mixed, invade the ear, will lead to phlegm and fire stagnation type neurological tinnitus. Therefore, the method of Xiehuo Anshen acupuncture manipulation is selected, and Baihui (DU20), Sishencong (EX-HN1), Shuigou (DU26), Dazhui (DU14), Shenmen (HT7, Bilateral), Shaofu (HT8, Bilateral), Xingjian (LR2, Bilateral), Xiaxi (GB43, Bilateral), Neiting (ST44, Bilateral), and Tinghui (GB2, The affected side) are used to diarrhea fire the liver and gallbladder, dissolve phlegm and diarrhea fire, and regulate the Shen of the heart and brain.

The Xiehuo Anshen acupuncture manipulation emphasizes the equal importance of Xiehuo and

Anshen, and emphasizes the essence of selecting acupuncture points and «clarifying its source and improving its aftermath», so that phlegm and fire diarrhea and have nothing source, and the heart and brain Shen were in their respective places and have masters, and then achieve the effect of tinnitus and elimination of various diseases.

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EFFECT OF STELLATE GANGLION ACUPOINT CATGUT EMBEDDING ON SLEEP QUALITY AND ESTROGEN LEVELS IN WOMEN WITH PERIMENOPAUSAL INSOMNIA

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Abstract. This paper describes a novel treatment for perimenopausal insomnia - stellate ganglion acupoint catgut embedding. The experiment randomly divided 60 perimenopausal insomnia patients into two groups, 30 cases in each group. The treatment group was treated with stellate ganglion implantation, and the control group was selected for acupuncture treatment. It was observed that stellate ganglion acupuncture significantly improved the patients' perimenopausal symptom score (Kupperman), Pittsburgh sleep quality index (PSQI), and serum estradiol (E2) levels.

Keywords: Stellate ganglion, Acupoint catgut embedding, Insomnia

Insomnia is one of the clinical symptoms with a high incidence of perimenopausal syndrome, and 33% to 51% of menopausal women suffer from sleep disorders, which affects the patient's psychological and physical health. Studies have shown that stellate ganglion block can alleviate perimenopausal-related symptoms, but stellate ganglion block puncture is more dangerous. Stellate ganglion implantation achieves therapeutic effect through the comprehensive adjustment effect on the nervous system, and the therapeutic effect is long-lasting and without side effects.

Objective

The aim of this study was to investigate the clinical efficacy of stellate ganglion acupoint catgut embedding in the treatment of perimenopausal insomnia in women.

Materials and methods

A total of 60 patients with perimenopausal insomnia were selected for this study and randomly divided into two groups of 30 cases each, with the control group aged 45-60 years old and the duration of the disease ranging from 2 to 16 months, and the treatment group aged 45-57 years old and the duration of the disease ranging from 3 to 18 months. The general conditions of the patients in the two groups were statistically processed, and the differences were not statistically significant (P>0.05) and were comparable.

Diagnostic criteria: Insomnia was referred to the diagnostic criteria of China Classification Scheme and Diagnostic Criteria for Mental Disorders, Third Edition (CCMD-3) on insomnia; perimenopause was referred to the definition of WHO Perimenopause Study Group.

Inclusion criteria: Meet the above diagnostic criteria;Have not received related treatment in the last three months;Patient voluntarily accepts the treatment and signs the informed consent form.

Exclusion criteria: patients with serious primary diseases of other systems;secondary insomnia due to mental disorders;infection and skin damage at the site of acupoint buried thread.

Treatment group: The patients were placed in supine position with the lower jaw slightly elevated, and the C6 transverse anterior node was used as the needle entry point. The operator routinely sterilized, a 1.5-2cm long piece of No. 3-0 PGLA thread was loaded into a No. 9 buried needle, applying the thread folding and burying technique, stabbing the needle quickly, and then discharging the needle after gaining air while leaving the thread

in the acupoint and pressing for a moment. 1 time/2 weeks, 1 course of treatment for 3 times.

Control group: select Baihui, Shenmen, Neiguan, Anmian (refer to the selection criteria of insomnia in Acupuncture and Moxibustion). Operation method:Acupoints were routinely needled, and the needles were left in place for 30min, 1 time/day, 1 course lasted for 2 weeks, a total of 3 courses, and the efficacy was observed at the end of the course.

Results and discussion

Kupperman and PSQI scores decreased and E2 levels increased after treatment in both groups, and the difference was statistically significant (P<0.05), and the treatment group was better than the control group, and the difference was statistically significant (P<0.05). See Table 1.

Table 1 Comparison of Kupperman, PSQI, and E2 levels before and after treatment in two groups of patients ($\bar{x} \pm s$)

Group	time	cases	Kupperman	PSQI	E2
Treatment group	Before treatment	30	29.30±3.20	13.77±3.87	35.41±14.56
	After treatment	30	17.43±5.61	8.49±1.64	68.67±22.98
Control group	Before treatment	30	30.22±3.84	15.01±3.07	37.02±13.67
	After treatment	30	23.87±5.84	10.19±2.48	50.15±19.34

Stellate ganglion acupoint catgut embedding is a characteristic therapy of acupuncture point implantation, which can regulate the function of hypothalamus-pituitary-ovarian axis, enhance the ability of ovarian secretion of E2, regulate the abnormal endocrine system, and then alleviate the clinical symptoms of patients.

Stellate ganglion acupoint catgut embedding is effective in improving perimenopausal insomnia, which can effectively alleviate perimenopausal patients' insomnia, is safe to operate, has no side effects, has the advantages of fewer acupoints, long-lasting stimulation, safety and high efficiency, and is suitable to be widely popularized and applied in the clinic.

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CLINICAL OBSERVATION ON THE TREATMENT OF ESTAZOLAM DEPENDENT INSOMNIA WITH TONG-DU TIAO-SHEN ACUPUNCURE

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Abstract. This article reveals that the researchers from the Third Department of acupuncture and moxibustion, the First Affiliated Hospital of Heilongjiang University of Chinese Medicine, compared the efficacy of Tongdu Tiaoshen acupuncture and traditional acupuncture in improving the sleep quality of patients with Estazolam dependent insomnia. In this study, Pittsburgh Sleep Quality Index (PSQI), Estazolam dosage, Estazolam drug reduction rate and Self Rating Anxiety Scale (SAS) were used to evaluate the multi-dimensional efficacy. The results showed that the effect of mind regulating acupuncture was better than that of conventional acupuncture in improving the sleep quality of patients with Estazolam dependence. After treatment, the dosage of Estazolam was reduced, the drug reduction rate was increased, and withdrawal symptoms such as anxiety were significantly reduced.

Keywords: Drug dependence,insomnia,withdrawal reaction,acupuncture treatment

Long term insomnia patients are often accompanied by symptoms such as decreased attention, lack of energy, dizziness, and headache, resulting in physical and mental torment for patients.

Benzenediazepines (BZDs) are widely used in clinical practice because of their quick effect, especially Estazolam tablets[1]. However, taking these drugs for a long time will lead to physiological and psychological double dependence, and hasty withdrawal will not only aggravate patients' insomnia, but also often induce withdrawal reactions such as irritability and anxiety. A large number of clinical practices have proved that acupuncture and moxibustion has a good effect on insomnia[2]. This study aimed at patients with Estazolam dependent insomnia, compared with conventional acupuncture, to observe the effect of mind regulating acupuncture on their drug reduction process and withdrawal reaction, which is reported as follows.

Objective

To observe the therapeutic effect of Tongdu Tiaoshen acupuncture on Estazolam dependent insomnia, and to seek a better scheme for acupuncture treatment of Estazolam dependent insomnia.

Materials and methods

Suzhou Medical Products Factory Co., Ltd. Huatuo Brand Disposable 0.35 × 40mm sterile acupuncture and moxibustion needle. In the treatment group, 30 cases were treated with the acupuncture method of «Tongdu Tiaoshen» combined with the reduction of Estazolam. The acupoints were Baihui Toushenting, Shendao Toulingtai, Shuigou, Tanzhong and Zhongwan. The control group (30 cases) was treated with routine acupuncture combined with Estazolam reduction method. Once a day, 5 times a week, and treatment for 4 weeks. The efficacy was compared by PSQI, Estazolam dosage, Estazolam reduction rate and SAS before and after treatment

Results and Discussion

There were significant differences in PSQI score, Estazolam discontinuation rate and SAS score between the two groups after treatment, and the treatment group was superior to the control group ($P<0.05$). Therefore, the mind regulating acupuncture has a definite effect on Estazolam dependent insomnia, which is helpful for drug withdrawal and reducing withdrawal reaction. Discussion: Traditional Chinese medicine believes that insomnia is caused by the imbalance of yin and yang, the excess of yang and the weakness of yin, the disturbance of the gods, the blindness of the brain without sleep, and the disturbance of the mind without sleep. Although there is no detailed record of drug dependent insomnia in traditional Chinese medicine classics, looking at its symptoms in the tongue and pulse, this disease belongs to the long-term insomnia with a loss of yin and fluid, and the majority of patients suffer from heart and kidney failure. This study selected Du meridian penetration needling to nourish kidney yin, lower heart fire, regulate qi and calm the mind. In this article, the combination of various acupoints is used to regulate yin and yang, calm the brain and mind, nourish the yin and nourish the ren meridians, replenish the kidney water and clear the heart fire. Together, it plays the role of both water and fire, and the intersection of heart and kidney, resulting in a peaceful and peaceful mind.

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CLINICAL OBSERVATION ON THE TREATMENT OF SPASTIC HEMIPLEGIA OF UPPER LIMB AFTER STROKE WITH ANTAGONISTIC MUSCLE ACUPUNCTURE

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Abstract. This article introduces the clinical effect of antagonistic muscle acupuncture on spastic hemiplegia of upper limb after stroke by clinicians of the First Affiliated Hospital of Heilongjiang University of Chinese Medicine. The degree of spasticity, motor function and ability of daily living of the patients were evaluated by antagonistic muscle acupuncture compared with ordinary acupuncture. The results show that antagonistic muscle acupuncture can effectively improve the spasticity of the limbs, exercise ability and daily living ability of the patients.

Keywords: Antagonist muscle, Acupuncture, Spastic hemiplegia, Stroke

The spastic hemiplegia of upper limb after stroke is caused by the imbalance of internal and external muscle tension due to the damage of the central meridian system. It is manifested as internal rotation of the upper limb, flexion of the elbow and wrist joint, and the palm of the hand is skewed to the ulnar side, and is in a fist-like state. In recent years, with the change of living and working environment and dietary habits, unhealthy lifestyle such as smoking, drinking, high-fat and high-sugar diet has become a risk factor for inducing stroke, and the age of onset is younger, and spastic hemiplegia is the most common complications after stroke, which seriously affects people's daily life [1].

Objective

To observe the clinical efficacy of antagonistic muscle acupuncture in the treatment of spastic hemiplegia of upper limb after stroke, and to provide a new treatment method for the clinical treatment of spastic hemiplegia of upper limb after stroke.

Materials and methods

Under the conditions of meeting the research criteria, 60 patients with spastic hemiplegia of upper limb after stroke were randomly divided into the ordinary acupuncture group (30 cases) and the antagonistic muscle acupuncture group (30 cases). The antagonistic muscle acupuncture group adopted the antagonistic muscle acupuncture. The antagonistic muscle acupuncture group seclected acupoints Jianli, Jianliao, Tianjing, Quchi, Shousanli, Waiguan, and Baxie; In the ordinary acupuncture group, acupoints Jiquan, Jianyu, Chize, Hegu,Wangu. The needles retaining was kept for 30 minutes in both groups, once a day. Both groups were treated for 4 weeks. The study compared the changes of modified Ashworth scale (MAS), simplified Fugl-Meyer Assessment scale (FMA) of upper limb, and Barthel Index Assessment (BI index) before and after treatment. And evaluate the clinical efficacy of the patients after treatment.

Results and discussion

A total of 60 cases were included in this study, of which 1 person in the antagonistic muscle acupuncture group dropped out due to the COVID-19, and a total of 59 people completed the experimental study. There was no significant difference in age, gender, course of disease, and stroke type between the two groups (P>0.05). Before treatment, there was no significant difference in upper limb modified Ashworth spasticity classification (MAS), Fugl-Meyer Assessment scale (FMA), and Barthel Index Assessment (BI index) between the two groups (P>0.05). After treatment, the MAS grade, FMA score and BI index were significantly different between the two groups (P<0.05); and the antagonistic muscle acupuncture group was better than the ordinary acupuncture group(P<0.05). After treatment, the clinical efficacy of the two groups of patients was compared, and the total effective rate was 86.21% in the antagonistic muscle acupuncture group, which was significantly higher than 76.67% in the ordinary acupuncture group (P<0.05). Therefore, antagonist muscle acupuncture can effectively relieve spasticity, improve limb motor function and daily living ability, and the effect is more significant than ordinary acupuncture.

Antagonistic muscle acupuncture is the application of the theory of «Yin Yang equilibrium» in Chinese medicine. Acupuncture at acupoints stimulates local muscle and skin receptors to input a variety of sensory impulses into the central armature nervous system, induces muscle and skin response, strengthens the inhibition of advanced central armature, promotes the formation of normal motor mode and the function of large brain cells[2]. Acupuncture can stimulate the muscle spindle and muscle tendon receptor in the antagonist muscle, make antagonist muscle movement, muscle contraction, regulate the chaos system of flexor extensor muscle, slow down the limb spasm. Needling antagonistic muscle can suppress the excitation of the motor neurons of the spasticity muscle group, make the motor neurons of the antagonistic muscle group excited, accelerate the emergence of the separation movement, and thus play a role in relieving spasticity.

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OBSERVATION OF THE CLINICAL EFFICACY OF 'SHAO SHAN HUO' NEEDLING METHOD IN TREATING DIABETIC PERIPHERAL NEUROPATHY WITH YANG DEFICIENCY AND COLD COAGULATION PATTERN

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Abstract. This article reports on the clinical efficacy of the «Shao Shan Huo» needling method used by the Third Acupuncture Department of the First Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine in treating diabetic peripheral neuropathy with the pattern of Yang deficiency and cold coagulation. The treatment effects were evaluated using the Traditional Chinese Medicine Syndrome Grading Quantification Table, Toronto Clinical Scoring System, and nerve conduction velocity assessment. The results showed that compared to conventional needling methods, the «Shao Shan Huo» needling method significantly improved the clinical symptoms and nerve function scores of patients with diabetic peripheral neuropathy with the pattern of Yang deficiency and cold coagulation. The treatment showed significant efficacy, and the differences were statistically significant.

Keywords: diabetic peripheral neuropathy, Yang deficiency and cold coagulation pattern, acupuncture, Shao Shan Huo needling method

Diabetic Peripheral Neuropathy (DPN) is the most common complication of diabetes and a significant factor leading to limb disabilities, foot ulcers, and eventual amputation. The main clinical manifestations of DPN include symmetrical sensory pain, primarily affecting the lower limbs, as well as symptoms like numbness, tingling, and a burning sensation. Motor disorders may present as muscle weakness and balance problems[1].

Currently, conventional symptomatic treatments for DPN involve the use of anticonvulsants, antidepressants, antioxidants, Aldose Reductase Inhibitors (ARIs), and vasodilators[2]. However, these approaches only provide temporary relief and have issues with unclear efficacy and potential side effects. Acupuncture has unique advantages in treating peripheral neuropathy.

In this study, under the guidance of Professor Zou Wei, a traditional compound needling technique called the «Shao Shan Huo» method was employed to treat DPN with the pattern of Yang deficiency and cold coagulation. The study used a randomized controlled trial (RCT) method, evaluating the treatment effects through Toronto Clinical Scoring System (TCSS), nerve conduction velocity, and overall Traditional Chinese Medicine (TCM) syndrome score. This research provides new insights into the application of traditional acupuncture techniques in the treatment of modern diseases.

Objective

Observation of the clinical efficacy of the 'Shao Shan Huo' needling method in treating DPN with the pattern of Yang deficiency and cold coagulation.

Materials and methods

Using a random number table method, 60 selected patients were divided into a control group and a treatment group, with 30 patients in each group. The control group received conventional acupuncture, while the treatment group received the 'Shao Shan Huo' needling method. Both groups received basic treatment, and the treatment group was treated with the 'Shao Shan Huo' needling method. The selected acupuncture points included bilateral Shenshu (BL23), Zusanli (ST36), Yanglingquan (GB34), Xuanzhong (GB39), and Taichong (LR3). For patients with upper limb symptoms, additional points such as Quchi (LI11), Waiguan (TE5), and Hegu (LI4) were added. The 'Shao Shan Huo' technique was applied to Zusanli (ST36) and Quchi (LI11), while other points were treated with even supplementation and drainage needling techniques. The needles were retained for 50 minutes, once daily, and two weeks constituted one treatment course. Two consecutive courses of treatment were administered. The control group received conventional acupuncture treatment, with the same acupuncture points, frequency, and treatment duration as the treatment group, and all points were treated with even supplementation

and drainage needling techniques. The total TCM syndrome score, TCSS, and nerve conduction velocity of the patients were compared before and after treatment, and the differences in treatment efficacy between the two groups were observed.

Results and discussion

After the treatment, both groups showed a significant reduction in total TCM syndrome score and TCSS ($P < 0.01$). Moreover, the Motor Conduction Velocity (MCV) of the Tibial Nerve and Sensory Conduction Velocity (SCV) of the Peroneal Nerve increased ($P < 0.01$), with the treatment group showing a greater improvement compared to the control group ($P < 0.05$). The total effective rate in the treatment group was 86.67%, while the control group's total effective rate was 70.00%, indicating that the treatment group had better efficacy compared to the control group ($P < 0.05$).

The «Shao Shan Huo» needling method and conventional acupuncture both improve the Traditional Chinese Medicine clinical symptoms, TCSS, and nerve conduction velocity in patients with DPN and the pattern of Yang deficiency and cold coagulation. They promote the recovery of nerve function, with the «Shao Shan Huo» needling method demonstrating superior efficacy compared to conventional acupuncture. Therefore, the «Shao Shan Huo» needling method can be considered an effective therapeutic approach for the clinical treatment of DPN.

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EXPLORING THE MECHANISM OF HQZR IMPROVEMENT OF INSULIN RESISTANCE FROM THE PERSPECTIVE OF HNRNPC GENE

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Abstract. From the perspective of HnRNPC gene, PI3K/Akt signal pathway, to explore the mechanism of HQZR in improving insulin resistance (IR). One group of C57BL/6 mice was reserved as the blank control group, and the other mice were fed with high-fat diet and intraperitoneal injection of streptozotocin (STZ) to establish IR model. After the model was successfully established, they were randomly divided into model control group, HQZR group and rosiglitazone group. After 4 weeks of administration, liver tissues were taken, and the expression of HnRNPC gene in each group was detected by qRT PCR; the protein expressions of HnRNPC, PI3K, p-PI3K, Akt, p-Akt were detected by Western blot. One of the mechanisms of HQZR to improve insulin resistance may be to inhibit the expression of HnRNPC gene and protein in mice liver, thereby improving the activity of PI3K/Akt signaling pathway and improving IR.

Keywords: Type 2 diabetes, Insulin resistance, HnRNPC, HQZR, PI3K/Akt

The PI3K/Akt signaling pathway was an important pathway for insulin signaling. When PI3K/Akt pathway transduction was impaired, it will cause glucose absorption disorders, ultimately leading to IR[1]. Heterogeneous nuclear Heterogeneous ribonucleoprotein particle C (HnRNPC) was a differentially expressed gene screened by our research group in the liver of db/db mice with diabetes in the early stage.

HQZR was an experienced and effective prescription for the clinical treatment of IR, which could effectively improve IR. This article will explore whether HQZR could improve IR by influencing the expression of HnRNPC and PI3K/Akt signaling pathway through animal experiment. The mechanism of HQZR improving IR will be studied from a new molecular perspective, providing new evidence for HQZR's treatment of IR.

Objective

From the perspective of HnRNPC gene, to explore whether HQZR could improve mice liver IR by interfering with the expression of HnRNPC, and to explore the mechanism of HQZR to improve liver IR from this perspective.

Materials and methods

Seven week old male C57BL/6 mice were selected. After one week of adaptive feeding, the

insulin resistance model was established by high-fat diet feeding combined with low-dose intraperitoneal injection of streptozotocin (STZ). The successful mice were randomly divided into model control group, HQZR group and positive control group; Normal C57BL/6 mice were the blank control group. HQZR group was perfused with HQZR Decoction at a dose of 5.4g/kg, and the blank control group and the model control group were perfused with the same amount of normal saline 10ml/kg. After 28 days of administration, QRT PCR and Western blot were used to detect the gene and protein expression level of HnRNPC in liver tissue of each group according to the instructions; Western blot was used to detect the expression of CaSR protein in each group, and the protein expression and phosphorylation level of PI3K and Akt were detected at the same time.

Results and discussion

Compared with the blank control group, elevated expression of HnRNPC gene and protein (P <0.01, P <0.05); the expression of p-PI3K and p-Akt proteins decreased (P <0.05, P <0.01). Compared with the model control group, reduced expression of HnRNPC gene and protein (P <0.05, P <0.05); The expression of p-PI3K, and p-Akt proteins increased (P <0.05, P <0.05).

The results indicate that HQZR may enhance the activity of the PI3k/Akt signaling pathway by downregulating the expression of HnRNPC in mouse liver tissue, ultimately improving IR.

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PHARMACOLOGICAL EFFECTS AND CLINICAL APPLICATION OF GUALOU GUIZHI DECOCTION IN THE TREATMENT OF STROKE

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Abstract. Gualou Guizhi Decoction is a classic prescription for the treatment of spasms caused by exogenous febrile diseases and convulsions, spasms, hand and foot peristalsis in internal injuries and miscellaneous diseases. It has the effects of harmonizing qi and blood, softening tendons and veins, nourishing yin and promoting fluid production. It is used to relieve the symptoms of nervous system spasms in clinical practice of traditional Chinese medicine.

Keywords: Gualou Guizhi Decoction; stroke; pharmacological effects; clinical application

Gualou Guizhi Decoction originated from Zhang Zhongjing 's Synopsis of Golden Chamber in the Eastern Han Dynasty. It has the effects of regulating yin and yang qi and blood, softening tendons, nourishing yin and generating fluid, and is used to treat spasms caused by exogenous febrile diseases. It is now clinically used to treat limb spasm after stroke, and the curative effect is remarkable. A variety of active ingredients of Gualou Guizhi Decoction can treat lower limb spasm after stroke from the central nervous system and peripheral muscle tissue through anti-inflammatory, antioxidant, neurotrophic and protective pharmacological effects, as well as biological processes such as muscle cell proliferation [1].

1. Pharmacological effects

1.1 Oxidative stress

Experimental studies have found that Gualou Guizhi Decoction can not only reduce the area of cerebral infarction, reduce the production of ROS and MDA (P < 0.01), increase the activity of SOD, CAT and GSH-Px[2], but also up-regulate the expression of Nrf2, HO-1, NQO1 and Keap1 in brain tissue, thereby inhibiting oxidative stress caused by cerebral ischemia-reperfusion injury.

1.2 Inhibition of apoptosis

The neuroprotective effect of Gualou Guizhi Decoction on cerebral ischemia injury can inhibit apoptosis, inhibit p38MAPK activation, down-regulate Caspase-3 protein expression, and activate PI3K / AKT signaling pathway to inhibit neuronal apoptosis in MCAO rats [3].

1.3 Inhibition of neuroinflammation

Gualou Guizhi Decoction can promote the transformation of microglia from M1 to M2 by inhibiting the expression of NF-κBp65 protein,

thereby reducing cerebral ischemia-induced neuroinflammation and exerting brain protection[4].

1.4 Angiogenesis

Gualou Guizhi Decoction can significantly increase the expression of CD34, HIF-1α, VEGF and VEGFR2 proteins in the ischemic cerebral cortex by regulating the hypoxia-inducible factor-1α signaling pathway[5], and promote angiogenesis after cerebral ischemia / reperfusion injury.

2. Clinical application

2.1 Reduce lower limb spasm

By observing the effect of Gualou Guizhi Decoction on patients with lower limb spasm and lower limb motor function after stroke, Wang Junfeng[6] found that Gualou Guizhi Decoction can effectively alleviate the clinical symptoms, regulate the coagulation and fibrinolysis state in vivo, reduce the degree of lower limb spasm, so as to improve the lower limb motor function and activities of daily living of patients with lower limb spasm after stroke.

2.2 Combined warm acupuncture

The treatment of stroke patients with trunk control dysfunction can promote the neurological effect of brain function by improving neurotrophic indicators, improve the trunk control ability of patients, and improve the quality of life of patients.

Conclusion

Gualou Guizhi Decoction is used to treat stroke and lower limb movement disorders. It has good curative effect and is worthy of promotion and in-depth study. It is safe and effective, and is effective in combination with other drugs. It has great development prospects and has a positive effect on the research and development of traditional classical prescriptions.

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RESEARCH PROGRESS ON MECHANISM OF CHINESE MEDICINE REGULATING FERROPTOSIS IN TREATING ISCHEMIC STROKE

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Abstract. Ferroptosis is a new form of cell death that has been widely concerned in recent years. Ferroptosis is closely related to ischemic stroke, and inhibiting Ferroptosis can play a neuroprotective role. Traditional Chinese medicine has the advantages of multiple pathways and targets for treatment, and has been widely applied in the entire disease chain of IS, achieving good clinical results. It may be a new direction of stroke treatment in the future to regulate Ferroptosis by traditional Chinese medicine. This article reviews the research progress of traditional Chinese medicine in the treatment of iron death in ischemic stroke, in order to provide basis for the treatment of iron death in ischemic stroke.

Keywords: ferroptosis, Ischemic stroke, Traditional Chinese Medicine

Ischemic stroke (IS) is the main cause of death and disability worldwide, and its incidence rate, recurrence rate, mortality and disability rate have remained at a high level in recent years [1. In recent years, Ferroptosis, as a new form of cell death, has attracted extensive attention in the medical field, and a large number of domestic and foreign scholars have carried out a lot of research

on it. This article briefly describes the mechanism of Ferroptosis, summarizes the research status and difficulties of Chinese medicine in regulating the damage of nerve cells after stroke, and provides a reference for further improving the efficacy of Chinese medicine in stroke.

Ferroptosis and ischemic stroke

The concept of Ferroptosis was first proposed in 2012, which is a regulatory form of cell death driven by the accumulation of iron dependent lipid hydroperoxide. Under pathological conditions, Fe2+accumulates in the cell, Fenton reaction and Haber Weiss reaction lead to the production of a large number of oxidative free radicals (ROS), and a series of peroxidation reactions with Polyunsaturated fatty acid (PUFA) on the cell membrane, forming lipid peroxides, destroying cellular structure, and ultimately leading to cell Ferroptosis [2].

Correlation between Ferroptosis and TCM pathogenesis of ischemic stroke

IS belongs to the category of «stroke» in traditional Chinese medicine. In the development of stroke, «stasis» is a key factor that causes significant changes in the condition in a short period of time. This is in line with the views proposed by modern medicine regarding local cerebral tissue blood circulation disorders, abnormal energy metabolism, and accumulation of toxic metabolites after stroke. With the development of the disease, a large number of pathological products are accumulated, which drive the chain lipid peroxidation reaction under the catalysis of iron, and produce toxic Lipid peroxidation products, which is the manifestation of evil accumulation and toxicity. The lethal effect of toxic metabolites on nerve cells has commonness in the damage mechanism of blood stasis and excess pathogenic factors on brain collateral and brain marrow, which provides evidence for Chinese medicine to regulate the Ferroptosis of nerve cells after stroke.

Research status of Chinese medicine regulating Ferroptosis after ischemic stroke

The study on the components of traditional Chinese medicine found that tanshinone I could block the protein expression of Gpx4 and reduce Ferroptosis, while tanshinone II A could inhibit Ferroptosis by inhibiting lipid peroxide and iron content in rat hippocampal cells [3]. Isobutylamines may play a protective role in erastin induced hippocampal neurons by inhibiting Ferroptosis [4].

The research on Chinese herbal compound shows that Erchen Decoction and Taohong Siwu Decoction can improve the oxidative stress response of ischemic mice, reduce the aggregation of iron ions in cells, and inhibit Fenton reaction and Ferroptosis [5].

It is found that scalp acupuncture can trigger the autophagy protein P62/Keap1/Nfr2 of the antioxidant pathway, up regulate the levels of FTH1 and GPX4, and thus reduce the peroxidation damage caused by Ferroptosis after ICH [6]. Moxibustion treatment can inhibit Ferroptosis and then reduce the damage of dopamine neurons, which is a new research direction of nerve cells against Ferroptosis [7].

In this review, we summarized the definition and mechanism of Ferroptosis, discussed the research progress of Chinese medicine regulating Ferroptosis in treating ischemic stroke, and provided new ideas and effective strategies for Chinese medicine treating stroke.

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RESEARCH PROGRESS IN ACUPUNCTURE IN THE TREATMENT OF ISCHEMIC STROKE

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Abstract. Stroke, also known as stroke, is a disease in which sudden fainting, unconsciousness, with crooked corners of the mouth, unfavorable language, and half-body failure, or only crooked corners of the mouth and half body failure as the clinical main symptom. Ischemic stroke is a cerebral blood circulation disorder disease caused by a variety of factors caused by a variety of factors to reduce or completely interrupt the local blood supply to brain tissue, resulting in ischemia and hypoxia of brain tissue. The disease has the characteristics of high morbidity, high mortality, high disability rate and often residual sequelae, and is a common disease that endangers the health and life of middle-aged and elderly people. Both basic and clinical studies have found that acupuncture is an effective method for the treatment of stroke.

Keywords: Ischemic stroke,Combination of acupuncture and medicine

Cui Jingjing et al. [1] believe that acupuncture and drug binding has a synergistic effect, and propose that acupuncture may change the blood drug concentration, target organ drug concentration or drug bioavailability by affecting the absorption, distribution and metabolic process of the drug in the body, and can also change the reactivity or sensitivity of cells to the drug by affecting the specific receptor on the target organ cell and its signal transduction pathway, and ultimately improve the efficacy of the drug.

Jiang Genshen et al. [2] used stellate ganglion block combined with acupoint thread insertion method to treat ischemic stroke, and compared it with the conventional treatment group, conventional rehabilitation training and acupuncture treatment group, and evaluated the treatment effect by Fugl-Meyer motor function assessment, activity ability of daily living-ADL (modified Barthel index), and found that the observation group score was higher than that of the control group, indicating that the clinical efficacy of stellate ganglion block combined with acupoint thread insertion in the treatment of ischemic stroke was better than that of conventional treatment. Provides a new approach for the clinical treatment of ischemic stroke.

Objective

With the continuous development of clinical research, the combination of needle and drug treatment of cerebral infarction is a research hotspot at present and in the future, but there are still some uncertainties in clinical and experimental research, such as the selection of different acupuncture methods, mainly including head needle, body acupuncture, eye acupuncture, brain opening acupuncture, etc.; There is a lack of unified standards for the timing, technique, intensity, and acupuncture of acupuncture; Clinical variability of route of administration, type of drug, dosage form, dose, etc. How to design reasonable research or treatment plans to solve these problems from a holistic, comprehensive and diversified perspective is worth further exploring.

Materials and methods

Feng Caizheng et al. [3] randomly divided 82 patients with acute cerebral infarction into treatment group and control group, the control group was given arterial thrombolytic therapy, and the treatment group was arterial thrombolysis combined with acupuncture for treatment, through observation and comparison of the NIHSS scores of the two groups, it was concluded that arterial thrombolysis combined with acupuncture in the treatment of acute cerebral infarction patients had a significant clinical effect than arterial thrombolysis.

Results and discussion

Because ischemic stroke has a high incidence, high mortality and high disability rate, it is a common disease that endangers the health and life of middle-aged and elderly people, and we must do a good job in early prevention of this disease, and actively carry out early formal treatment once diagnosed. Clinically, the conventional treatment of ischemic stroke includes antiplatelet therapy, blood pressure control, blood sugar control, blood lipid regulation, and nutrition of cranial nerves.

A large number of clinical studies have affirmed the clinical efficacy of TCM treatment on the basis of conventional treatment, among which acupuncture treatment is unique. At present, acupuncture alone, electroacupuncture, body acupuncture combined with head acupuncture and acupuncture combined with drug therapy are mostly used in clinical practice, and the treatment effect is evaluated by NIHSS scoring standards, motor function evaluation, daily life activity ability, etc.

Some scholars believe that acupuncture is mainly used in the treatment of ischemic stroke sequelae, and whether the influence of early interventional acupuncture on the incidence, recurrence rate and disability rate of ischemic

stroke can be studied. Reviewing the literature, it was found that there are more clinical studies on acupuncture in the treatment of ischemic stroke, but there are fewer basic studies such as its mechanism of action, and more research can be done in this area in the future.

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EFFECT OF GENTIANELLA ACUTA MEDICATED SERUM ON AUTOPHAGY AND APOPTOSIS OF H9C2 CELLS AFTER H/R INJURED

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Abstract. Gentianella acuta is an herb of the Gentianella(Gentianaceae), also known as bitter Gentian, with bitter taste and cool-nature, mainly distributed in China, the Mongolian Plateau, Siberia and the northern part of the Russian Far East. In Mongolian medicine, it is widely used to treat hepatitis, jaundice, fever, arrhythmia, coronary heart disease, etc.The Oroqen and Ewenki hunters called it «metacentric grass». Gentianella acuta and its extracted components have anti-inflammatory, antioxidant, anti-depression and insulin resistance effects, and can improve the pathogenesis of cardiovascular and cerebrovascular diseases, and its active components have a protective effect on the heart. Recent studies have shown that the Gentianella acuta serum can reduce the degree of hypoxia/reoxygenation injury of H9c2 cells, and reduce the rate of apoptosis. Gentianella acuta serum may inhibit apoptosis by reducing the overexpression of autophagy to play a protective effect on cardiomyocytes.

Keywords: Gentianella acuta, hypoxia/reoxygenation, H9c2 cells, Autophagy

Ischemic heart disease (IHD) is a leading cause of death worldwide. IHD currently affects about 126 million people worldwide (1,655 per 100,000), or about 1.72% of the world's population, and the prevalence is expected to exceed 1.85% by 2030. Studies have shown that autophagy plays a protective role in myocardial ischemia and inhibits myocardial damage. However, with the occurrence of reperfusion, over-activated autophagy induces cell death and exacerbates tissue damage. Previous studies have found that Gentianella acuta can significantly reduce myocardial enzyme content, reduce the damage degree of inflammation and oxidative stress in MIRI, and improve the ultrastructure of myocardial tissue, which proves that Gentianella acuta has a protective effect on myocardial ischemia-reperfusion injury. However, whether its protective effect is related to autophagy has not been confirmed. Therefore, based on previous experiments, the relationship between autophagy and Gentianella acuta serum preconditioning was observed in this study by constructing a Hypoxia/Reoxygena-tion (H/R) injury model of H9c2 cardiomyocytes, providing a basis for further exploration of the related mechanism of autophagy in MIRI.

Objective

To investigate the protective effect of Gentianella acuta serum on the H9c2 cells hypoxia/reoxygenation (H/R) injury model and its regulation on the levels of autophagy and apoptosis.

Materials and methods

The H/R model of H9c2 cells was established by hypoxia for 3h and reoxygenation for 3h. The experiment was divided into Control group, H/R group, GEN+H/R group and GEN+Rap (autophagy activator)+H/R group. The CCK-8 method was used to observe the effect of Gentianella acuta serum on the viability of cardiomyocytes, the ELISA was used to determine the content of LDH in the serum; the Annexin V-FITC double staining flow cytometry technique was used to study the apoptosis of H9c2 cells; Western Blot was used to detect the expression levels of Beclin1, LC3 II, and Caspase3 in cardiomyocytes.

Results and discussion

The results of CCK-8 and LDH showed that compared with the Control group, the cell survival rate of the H/R group was significantly decreased, and the LDH leakage of the cell culture medium

was increased (P<0.01); Compared with the H/R group, the cell survival rate of the GEN+H/R group increased significantly, and the LDH leakage decreased (P<0.01); Compared with the GEN+H/R group, the cell survival rate of the GEN+Rap+H/R group decreased significantly, and the LDH leakage increased (P<0.01).The results of flow cytometry showed that the apoptosis rate of H/R group was significantly higher than that of Control group (P<0.01); compared with H/R group, GEN+H/R group could significantly reduce H/R-induced apoptosis rate of H9c2 cells (P<0.01);Compared with the GEN+H/R group, the apoptosis rate of the GEN+Rap+H/R group increased (P<0.01). Western Blot results showed that the protein expression levels of Beclin1, LC3 II, and Caspase3 in the H/R group were significantly higher than those in the Control group; compared with the H/R group, Beclin1, LC3 II, Caspase3 in the H/R + GEN group , protein levels were significantly reduced;Compared with the GEN+H/R group, the Beclin1, LC3 II, and Caspase3 protein expression levels in the GEN+Rap+H/R group were significantly increased.

Myocardial ischemia-reperfusion injury is a complex process involving many factors. At present, the mechanism of myocardial ischemia-reperfusion injury is not fully understood.Increased production of oxygen free radicals, calcium overload, mitochondrial dysfunction, inflammation, autophagy and apoptosis may be the key factors inducing MIRI. This study showed that the Gentianella acuta serum could improve the degree of hypoxia/reoxygenation injury and reduce the apoptosis rate of H9c2 cells, and its protective effect might be achieved by reducing the overexpression of autophagy and inhibiting apoptosis.

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EFFECT OF BIEJIA-CHUANXIONG COMBINATION ON ACETALDEHYDE-INDUCED LIVER STELLATE CELL FIBROSIS MODEL

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Abstract. To investigate the molecular mechanism of the prevention and treatment of liver fibrosis in different proportions of the drug group from the perspective of TGF-β1/Smad pathway, a model of acetaldehyde-induced liver fibrosis was given to HSC-LX2 cells, and the optimal time and concentration of action were screened by CCK-8 method. The results show that Biejia-Chuanxiong can effectively improve liver fibrosis, and its mechanism of action is related to reducing the content of HA, LN and PCIII. in cells, promoting apoptosis, and inhibiting the expression of TGF-β1/Smad signaling pathway.

Keywords: Liver fibrosis; Biejia; Chuanxiong; Matching ratio

Liver fibrosis is a complex pathophysiological process that refers to the process of liver tissue repair and reconstruction caused by abnormal proliferation of intrahepatic connective tissue and extracellular matrix (ECM) deposition caused by various pathogenic factors. Liver fibrosis is the early stage of cirrhosis, this period is reversible, if not treated in time during this time period, it is likely to further develop into decompensated cirrhosis, while showing various end-stage liver disease complications. Any liver injury has a process of liver fibrosis in the process of tissue repair and healing, and if not properly treated, it will develop into cirrhosis, liver failure, and eventually death. Therefore, blocking liver fibrosis is essential to control the occurrence and progression of the disease.

In recent years, the research of traditional Chinese medicine in anti-liver fibrosis has achieved a series of scientific research results, and has been widely used in clinical practice, which has unique therapeutic advantages compared with Western

medicine. Biejia is one of the commonly used drugs for the treatment of liver fibrosis, this study is based on the «salty stagnation» matching theory in the «Auxiliary Travel Tips», combined with the analysis of the drug matching law of the anti-liver fibrosis related research of Biejia in the past two decades, the selection of Biejia as the representative of «salty» and Chuanxiong as the representative of «xin», the two are proportionally combined as the drug group, and the efficacy and mechanism of action of the combination of Biejia and Chuanxiong in vitro under the guidance of the theory of «salty stagnation» are discussed.

Objective

From the perspective of TGF-β1/Smad pathway, the molecular mechanism of the prevention and treatment of liver fibrosis in different proportions of the drug group of Quejiachuanxiong was studied.

Materials and methods

A model of acetaldehyde-induced liver fibrosis was given to HSC-LX2 cells, and the optimal time and concentration of action were screened by CCK-8 method. The enzyme-linked immunosorbent assay (ELISA) was used to verify the content of hyaluronic acid (HA), laminin (LN) and type III procollagen (PCIII.). The inhibitory effect of each drug group on the proliferation of acetaldehyde-activated HSC-LX2 cells was detected by CCK-8 method, and the optimal concentration of drug action was screened. The contents of HA, LN and PCIII. in the cell supernatant of each group were determined by ELISA, and the effect of each drug group on the ECM of activated HSC-LX2 cells was clarified. AnnexinV-FITC/PI double staining method detected apoptosis in each group, and screened the optimal matching ratio of Jiaojiachuanxiong. TGF-β1/SMAD (phosphorylated) protein expression was detected by Western blot.

Results and discussion

The concentration of acetaldehyde was 5μM for 24h, which had the most obvious effect on cell proliferation, and the contents of HA, LN and pciii. in the cell supernatant increased, indicating the success of molding. All drug groups can effectively inhibit the proliferation of liver fibrosis model cells, reduce the content of HA, LN and PCIII. in cells, promote apoptosis in liver fibrosis model cells, and reduce the expression levels of TGF-β1, Smad2/3 and p-Smad2/3 in cells.

The results of this study suggest that the administration of the drug combination of Biejia and Chuanxiong significantly reduced the levels of hyaluronic acid (HA), type III procollagen (PCIII.) and laminin (LN) in the cell supernatant, and the protective effect on liver fibrosis may be related to the inhibition of TGF-β1/Smad and p-Smad signaling. Ongoing damage may lead to the progression of liver fibrosis, leading to severe, irreversible liver disease, cirrhosis, and liver cancer, and treatment strategies for liver fibrosis remain limited. Blocking the TGF-beta1 pathway may be a potential strategy for liver fibrosis. In conclusion, the combination of Biejia Jia and Chuanxiong may block the process of liver fibrosis and hepatic stellate cell activation by inhibiting the TGF-β1/Smad signaling pathway. However, this experimental result also indirectly proves the guiding significance of the «salty and xin stagnation» matching theory, which provides a certain experimental basis for this matching theory.

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DIAGNOSIS AND TREATMENT OF POOR IMUNNE RECONSTITUTION AFTER ANTIVIRAL THERAPY WITH HIV/AIDS

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Abstract. Eastern Europe and Central Asia are one of the three regions of the HIV epidemic. There is an urgent need to expand HIV diagnostic treatment services, particularly in the Russian Federation, where there is a large gap between HIV testing and treatment initiation. The HIV/A IDS issue currently affects the interests of most countries in the world. Although the clear viral load of 10% ~30% of infected patients is effectively controlled, the ideal immune function, that is, poor immune reconstitution (Immunological non-responseNR), is still impossible. Efficient antiretroviral therapy (highly active antiroviral therapy, HAART) is the main method of AIDS immune reconstitution, AIDS immune reconstitution of traditional Chinese medicine treatment is mainly adjust the human immune function status, traditional Chinese medicine and HAART therapy combined application help immune function reconstruction, delay human immune deficiency virus (human immunodeficency irus, HIV) infection, improve the quality of life, is an important field of AIDS treatment can not be ignored

Keywords: Immunological non-responseNR, traditional Chinese medicine

Immune function reconstruction poor standard: refer to the 2014 DHHS AIDS antiviral treatment guidelines and combined with expert consensus do the following provisions: HIV/ADS immune function reconstruction poor diagnosis mainly by laboratory tests: accept HAART 1 years more than 2 years patients CDT lymphocyte count <200 uL-or accept HAART 2 years CDT lymphocyte count <350 pL-or after a period of time after treatment (such as 4~7 years), The CDtT lymphocyte count did not exceed a specific value (e. g.,> 350 uL-or 500L-) with HIV-RNA below the test line[1].HAART aims to inhibit viral replication, reconstitute immune function, reduce viral transmission, reduce morbidity and mortality, increase patient life span, and improve the quality of life of patients. At present, there are more than 30 kinds of antiviral drugs in six categories[2].

The mechanism of INR is unknown, which may be caused by reduced CD4 cell production, immune activation, cell apoptosis, and disordered levels of some cytokines such as IL-7[3]. The INR is also influenced by patient age, sex, CD4 cell count at initial ART, race, genetics, and other factors.

TCM treatment INR suggests «spleen as the center, both lung and kidney, sequential treatment»There are few studies on the action mechanism of INR TCM, mainly focusing on inhibiting or improving the chronic activation state, regulating the microecology of gastrointestinal mucosa and improving the immune function of intestinal mucosa.

Mechanism of action of TCM

Tripterygiundii preparation can effectively inhibit the immune activation of HIV infection, improve the peripheral blood CD4 cell count, may be by activating the eukaryotic cell initiation factor 2 signaling pathway, inhibit IFN pathway, immune number 2 particles (mainly composed of astragalus, dangshen, spirit, barbary wolfberry herbs) it can increase patients TLR 1, TLR 9, IL-2 expression, promote the reconstruction of immune function in patients with INR.

Discussion

Treatment of traditional Chinese medicine INR has potential advantages, has obtained certain results, but also have wide consensus of NR etiology pathogenesis, diagnosis criteria and diagnosis scheme industry guidelines or guidelines have not yet released clinical high quality research reported less, effective medical institutions preparation mechanism is not clear, suggest that researchers integrate advantage research strength, focusing on the key problems of INR clinical curative effect, collaborative research development mechanism clear, curative effect of traditional Chinese medicine, service HIV / IAIDS patients with medical needs.

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RESEARCH PROGRESS ON THE PHARMACOLOGICAL EFFECTS OF POLLEN TYPHAE IN THE TREATMENT OF BLOOD STASIS IN CORONARY HEART DISEASE

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Abstract. Coronary heart disease (CHD) is a common clinical cardiovascular disease, the key is the heart vessel obstruction, so the blood stasis syndrome is one of the most common pattern type of coronary heart disease, traditional Chinese medicine think Pollen Typhae treatment blood stasis syndrome of coronary heart disease manifested in its invigorate blood and dissolve stasis, hemostasis, relieve strangury (remove turbidity) effect.

Keywords: Pollen Typhae; coronary heart disease; blood stasis syndrome; invigorate blood and dissolve stasis; pharmacological effects

Coronary heart disease (CHD) is a common clinical cardiovascular disease, which has become one of the most important public health problems in China because of its high incidence and mortality rate. Pollen Typhae medicine was originally recorded in «Shen Nong's Classic of the Materia Medica», it is listed as top quality; Pollen Typhae sweet taste, mild nature, and two meridians of returning to the heart and liver , with the effect of invigorate blood and dissolve stasis, cool the blood and stanch bleeding , promote urination relieve strangury, is commonly used blood circulation and blood stasis medication[1]. Pollen Typhae is widely used in clinical practice, and can effectively treat coronary heart disease, hyperlipidemia and other cardiovascular diseases. This paper mainly discusses the effects of antiplatelet aggregation, anticoagulation, antithrombosis, hypolipidemic, antiatherosclerosis and protection of vascular endothelial injury.

1 Antiplatelet aggregation, anticoagulation, and antithrombosis

The coagulability of blood and the change of platelet function are important influencing factors in the pathogenesis of atherosclerosis and coronary heart disease. Pollen Typhae total flavonoids has obvious inhibition of blood cell aggregation, can reduce the blood viscosity, make the platelet aggregation rate significantly lower, make the maximum agglutination time shorten, inhibition of thrombosis, have improvement effect on microcirculation state, the above can show the pharmacological effect of invigorate blood and dissolve stasis [2].

2 Hypolipidemic

Dyslipidemia is one of the independent risk factors for CHD and is closely related to the development of CHD. By promoting lipid excretion, transport and clearance, Inhibiting lipid absorption in the body to prevent the formation of atherosclerosis [3]. We found that it prevented increased serum cholesterol levels and increased fecal cholesterol in rabbits fed high-fat animals [4].

3 Anti-arteriosclerosis

Long-term atherosclerosis will deposit lipid components and inflammatory substances in the lining of arteries, thus forming plaques, narrowing and hardening blood flow, which is the main cause of coronary heart disease . Jiang Likun et al. Through the study of atherosclerosis rat model liver low density lipoprotein receptor (LDLR) mRNA expression, speculated that the high dose of Pollen Typhae is by relieving the inhibition of rat LDLR state, increase the number and activity of cell membrane surface LDLR, make LDLR and more LDL, speed up the clearance of LDL, avoid excessive accumulation of intracellular cholesterol obviously, to reduce the serum lipid level to play the role of anti-atherosclerosis [5].

4 Protection of vascular endothelial injury

Nitric oxide (NO) is an important factor in the vascular endothelium, Pollen Typhae can not only promote NO synthesis, but also inhibit the synthesis of NO, suggesting that it may have a bidirectional regulation effect on NO synthesis [6].

5 Summary

At present, Pollen Typhae single-flavor medicine is rarely used to treat coronary heart disease of blood stasis syndrome in clinical practice, most of which are combined with other drugs, with outstanding skills. Pollen Typhae and flying squirrel faeces combination is to invigorate blood and dissolve stasis , relieve pain, famous prescription Sudden Smile Powder of relieve pain, used to treat heart abdominal pain, postpartum bruising in women, after development in all symptoms caused by stasis block, and Pollen Typhae less adverse reactions, drug safety, can be used for a long time, especially in the prevention and treatment of cardiovascular disease is blindly have development prospect of drugs, can be for the future traditional

chinese medical science and western medicine clinical treatment of cardiovascular disease to provide a choice.

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RESEARCH PROGRESS OF TRADITIONAL CHINESE MEDICINE IN TREATING ANGINA PECTORIS OF CORONARY HEART DISEASE

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Abstract. Coronary heart disease is a common disease in today's society, it is a kind of heart disease caused by coronary artery atherosclerotic lesion. In recent years, due to people's irregular life and work pressure, the incidence rate and mortality rate of coronary heart disease have increased year by year .With the deepening of research on coronary heart disease in traditional Chinese medicine, Chinese medicine treatment of coronary heart disease has achieved good results.In this paper, the traditional Chinese medicine therapy of coronary heart disease is summarized as follows: Traditional Chinese medicine decoction treatment, Chinese patent medicine treatment, traditional Chinese medicine injection treatment and traditional Chinese medicine external treatment.

Keywords: coronary heart disease; angina pectoris;traditional Chinese medicine decoction

Coronary heart disease is short for coronary atherosclerotic heart disease, also known as ischemic heart disease. Traditional Chinese medicine has no name for this disease, and similar symptoms are described in «chest numbness» and «heartache». With the development of economy, the aging of population and the change of life style, its morbidity and mortality are increasing year by year. The characteristic therapy of traditional Chinese medicine is simple, convenient and suitable, economical and effective, and plays a certain role in the treatment and prevention of coronary heart disease.

Understanding of angina pectoris of coronary heart disease in traditional Chinese medicine

Coronary heart disease angina pectoris in traditional Chinese medicine can be classified as «chest arthralgia», «heartache» and other diseases, the occurrence factors of this disease, from the outside from cold evil invasion, from the inside from diet, aging, fatigue, internal injury, emotional disorders.The pathological factors of coronary heart disease include deficiency, deficiency, deficiency and deficiency, etc. In the differentiation of symptoms, deficiency and syndrome are often mixed. In clinical practice, we should carefully distinguish between deficiency and deficiency.

Traditional Chinese medicine decoction

Traditional Chinese medicine decoction is the most widely used dosage form in clinical application of Chinese medicine. Due to the different etiology and pathogenesis of coronary heart disease, the medicine used by different doctors is also different. Qiu Weifeng et al. [1] used Gualou Xiebai Banxia decoction and atorvastatin in the treatment of patients with coronary heart disease and angina pectoris. The clinical verification proved that on the basis of Western medicine, the addition of Gualou Xiebai Banxia Decoction could effectively relieve the clinical symptoms of patients, and the heart function and micro-inflammation status were also improved.

Hao et al. [2] conducted a pharmacological study on Danlou tablet. Its components can reduce the area of atherosclerotic plaque, inhibit the expression pathway of NF-KB signaling inflammatory cytokines,

and also activate cholesterol to accelerate the flow of cholesterol out of the PPARα/ABCA1 signaling pathway.

Chinese patent medicine

There are many kinds of proprietary Chinese medicines for the treatment of coronary heart disease, including Shexiang Baoxin pills, Yangxin tablets, Guanxin Shutong capsules, Danlou tablets and so on.Yindan Xinnaotong softgel capsule combined with conventional Western medicine in the treatment of CHD can improve the symptoms of angina pectoris, abnormal electrocardiogram and reduce blood lipid .Yindan Xinnaotong softgel capsule combined with conventional Western medicine in the treatment of CHD can improve the symptoms of angina pectoris, abnormal electrocardiogram and reduce blood lipid [3].

External treatment of traditional Chinese medicine

External treatment is the characteristic therapy of Chinese medicine, which can not only relieve symptoms, improve the quality of life, but also have less adverse reactions. For coronary heart disease, on the one hand, it can reduce myocardial ischemia and injury and accelerate the recovery of myocardial blood perfusion. On the other hand, it can improve the tolerance of myocardial ischemia and hypoxia, and has certain significance for preventing the onset and delaying the formation of coronary heart disease.Ding Dong [4] selected Shanzhong, Neiguan, Xinshu and Jueyin Shu as the main points, and selected different combination points for treatment according to different syndrome types. The results showed that acupuncture and moxibustion had significant curative effect on angina pectoris of coronary heart disease and could improve heart function.

Conclusion

Traditional Chinese medicine has the characteristics of simple, convenient, cheap and testing, which still has certain value in the prevention and treatment of coronary heart disease, especially for chronic coronary heart disease and coronary heart disease rehabilitation patients.

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MECHANISM OF ACTION OF "ATRACTYLOS-PHELLODENDRI"ON IMPROVING GOUTY ARTHRITIS:BASED ON NETWORK PHARMACOLOGY

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Abstract. Gouty arthritis (GA), an inflammatory and metabolic rheumatological-immunological disease caused by the deposition of uric acid (UA) salt crystals on and around joint surfaces. The main manifestations are usually redness, swelling, heat and pain in the joints, usually accompanied by varying degrees of joint mobility impairment. According to statistics, with the improvement of living standards, under the influence of high cholesterol and high purine diet structure, the incidence of hyperuricaemia and gout has been steadily increasing globally, and 12-18% of people in southern China suffer from UA stones. After years of vigorous development, network pharmacology has been widely used in the study of traditional Chinese medicines and compound prescriptions, which has opened up new pathways for exploring the mechanism of action of traditional Chinese medicines and compound prescriptions. In this paper, a network pharmacological approach was used to investigate the potential mechanism of action of the «Cangzhu - Huangbai» drug pair in the prevention and treatment of gouty arthritis.

Keywords: Cangzhu, Huangbai, Gouty arthritis, Network Pharmacology, Mechanism of action

Gouty arthritis is an inflammatory and metabolic rheumatological-immunological disease caused by the deposition of urate crystals on and around joint surfaces [1]. The main manifestations are usually redness, swelling, heat and pain in the joints, usually accompanied by varying degrees of joint

mobility impairment. According to statistics, with the improvement of living standard, under the influence of high cholesterol and high purine diet structure, the incidence of hyperuricaemia and gout has been steadily increasing globally, and 12-18% of people in southern China suffer from UA stones [2]. Blood uric acid levels are associated with genetic factors, with a heritability of about 73%, and the SLC22A family, the ABC family, and the SLC2A family are by far the most studied gene families among the many susceptibility genes for gout [3]. Inflammatory cytokines TNF-α, IL-1β, COX-2, IL-8, and PGE2 are considered important targets in the pathogenesis of gouty arthritis.

Objective

A cyber-pharmacological approach to study the potential mechanism of action of the «Cangzhu-Huangbai» drug pair in the prevention and treatment of gouty arthritis.

Materials and methods

In Traditional Chinese Medicine Systems Pharmacology Database and Analysis Platform (TCMSP), the chemical components in the «Cangzhu-Huangbai» pair of formulas were obtained, and further target prediction was carried out. Disease-related gene targets for gouty arthritis were obtained from the OMIM database (https://omim.org/), GeneCards database(https://www.genecards.org/)andDisgenetdatabase(https://www.disgenet.org/).Drug-disease cross-targets were obtained using Venn2.1, and using Cytoscape 3.7.2, a network was constructed for candidate target chemistries and potential targets. The PPI network was constructed through the STRING online database (https: //string-db.org/), using the highest confidence (0.900) as a truncation criterion to hide nodes in the network that are not related to each other. Gene ontology (GO) functional enrichment analysis and Kyoto encyclopedia of genes and genomes (KEGG) pathway enrichment analysis were performed using the Metascape database (https://metascape.org/), respectively.

Results and discussion

«Cangzhu - Huangbai» pair of drugs from the «Danxi Xinfa - Volume IV - Gout», by Cangzhu, Huangbai two medicines with the composition of the composition of the Ermiao San to Huangbai as the ruler, Cangzhu as the subject, the combination of clever, the two drugs together to play the role of clearing heat and drying dampness, the original book recorded as the main treatment for «pain in the muscles and bones due to dampness and heat». Clinical application of «Cangzhu - Huangbai» is effective in the treatment of gouty arthritis of damp-heat accumulation type. In recent years, it has been proved that the «Cangzhu - Huangbai» medicinal pair has a multi-compound, multi-target, multi-pathway synergistic mechanism for a variety of diseases. However, the authors have not seen any studies using web-based pharmacological methods to explore the relationship between the «Cangzhu - Huangbai» drug pair and gouty arthritis.In this study, we investigated the possible mechanism of action of «Cangzhu-Huangbai» in the treatment of gouty arthritis based on network pharmacology, and the results showed that there were 26 targets at the intersection of the disease and the drug. The main components of the «Cangzhu-Phellodendron» drug pair include dihydroberberberine, berberine, 9-norphellodendronine, carvacroline, leucoerythrine, and xanthodendronine, which may act on the gouty arthritis disease targets, such as RARB, HPRT1, MAPK14, SRC, IGF1R, F2, MAPK1, SYK, MMP9, and APRT, by modulating the cancer-associated pathways, lipids, and atherosclerosis, proteoglycans in cancer, Rap1 signalling pathway, and the PI3K - Akt signalling pathway, among other pathways. However, there are limitations to this study, and the accuracy, reliability, and the results of the study are heavily dependent on database integrity. And more targets and pathways were predicted, the results of the study need further experimental validation.In the future, for more scientific and systematic Chinese medicine research to guide the clinic, we intend to implement more standardised and cutting-edge mechanism research on classical formulas through modern laboratory technology, based on a close connection with Chinese medicine theory.

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EXPLORING THE PATTERN OF POINT SELECTION IN CHILDREN WITH TIC DISORDERS BASED ON DATA MINING TECHNIQUES

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Abstract. Tic disorder is a kind of neuropsychiatric disorder with obvious genetic tendency, characterized by chronic, fluctuating and multiple, manifested by involuntary movement of motor muscles, blinking, nose shrugging, facial muscle twitching, head shaking, noise in the throat, and decreased attention.The prevalence rate is 0.3%-0.9%, with poor self-healing, and 20% of children with tic disorder are accompanied by learning difficulties, and 49.3% are accompanied by anxiety, which greatly affects children's learning, life and mental health[1.2]. At present, the study on the pathogenesis and pathological mechanism of tic disorder in children is not clear, and the treatment is mainly drug, and acupuncture is also widely used because of its low side effects[3]. Based on this, this study explored the rule of point selection for tic disorder based on data mining technology, and provided data support for clinical application of acupoints to treat children with tic disorder.

Keywords: Tourette's disorder; acupuncture; auricular point; head point cluster acupuncture; pattern of acupoint selection; data mining; correlation analysis

«Tic disorder», Chinese medicine will be classified as slow convulsion, convulsion, convulsion, liver wind, convulsion wind, muscle twitching and other categories, the disease is located in the «tendon meridian», involving the viscera of the liver, heart, spleen, lung, kidney, the disease is mostly caused by external feelings of six diseases, diet addiction caused by lung, spleen, kidney dysfunction, water and wet internal stop, condensation into phlegm related [And the child is the body of the young Yin and Yang, manifested as the heart and liver excess, and the spleen and kidney are often deficient.In addition, today's society brings greater pressure to children's life and study, emotional discomfort, and liver-depression causing fire and Yin injury, resulting in internal movement of liver-wind, which induces wind phlegm and causes twitching. Therefore, treatment is usually started from wind, phlegm, fire and deficiency, and syndrome differentiation is carried out [4].

Objective

To analyze the selection pattern of tic disorders in children using data mining techniques.

Materials and methods

The clinical studies on acupuncture and moxibustion for tic disorder included in China Journal Full-Text Database (CNKI), Wanfang Data Knowledge Service Platform (Wanfang), VIP Chinese Journal Service Platform (VIP), China Biomedical Literature Database (SinoMed) and PubMed database from 1992 to December 2022 were searched by computerResearch literature. The database was established through Excel2019 to make statistics on commonly used treatment methods, including acupuncture method (high-frequency acupoints, acupoint normalization), ear point compression method (high-frequency auricular acupoints), and cluster acupuncture of head points (high-frequency zones).IBMSPSSStatistics26.0 and SPSSmodeler18.0 were used for cluster analysis and association rule analysis.

Results and discussion

A total of 190 valid literatures were included, involving 270 acupuncture prescriptions.Among them, 184 acupuncture acupoints were counted, the total frequency of application was 1906, and the high frequency acupoints were Baihui, Taichong, Fengchi, Hegu, Sanyinjiao, Neiguan, Shenmen, Zusanli, Yintang and Sishencong in order.The high frequency meridians are the Du vein, the stomach channel of Foot Yangming, the gallbladder channel of foot Shaoyang, the large intestine channel of hand Yangming, the bladder channel of foot Yang and the liver channel of foot Jueyin.Through SPSSmodeler18.0 and IBMSPSSStatistics26.0 software analysis, 3 groups of acupoint strong association rules and 5 clusters were obtained. There were 29 auricular acupoints for bean pressure, and the total frequency of application was 206 times. The high frequency auricular acupoints were Shenmen, liver, heart, subcortex and kidney in order.Through the analysis of SPSSmodeler18.0 software, four groups of acupoint strong association rules were obtained.There are 15 regions involved in the application of cluster acupuncture in the head points, among which the high frequency regions are the anterior parietotemporal oblique line, the anterior parietotemporal 1 line and the dance tremor control area.To sum up, acupuncture treatment of children tic disorder, according to its pathogenesis (hyperactivity of liver, kidney deficiency, spleen deficiency, phlegm disturbance, etc.) and tic location, to choose the matching points, Yang meridian points, which is related to the nature of wind evil and its pathogenic characteristics.Children's

tic disorder and emotional disorders are closely related, so acupuncture, ear point pressure beans are paid attention to the method of soothing the liver, clearing the heart, and regulating emotions.In addition, children with tic disorder should focus on diet and external environmental stimuli.In the head area, the treatment of tic disorder mainly adopted the anteropoietal oblique line, parapietal 1 line and dance tremor control area, which is conducive to stimulating the Yang channel and qi, playing the function of invigorating the spirit and softening the tendon-harmonizing Yin and Yang.In addition, the ear point pressure bean and the head point cluster thorns, for children, the treatment pain is small, the treatment action time is long, it is not easy to bend the needle, broken the needle and other dangerous situations, and the compliance is higher.

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INTEGRATED ANALYSIS OF LNCRNA AND MRNA MICROARRAY PROFILES IN CHRONIC SALPINGITIS

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Abstract. Genome-wide screening was conducted for lncRNA and mRNA expression profiles in Chronic salpingitis (CS) tubal tissues for the first time. A total of 1847 aberrantly expressed lncRNAs and 698 mRNAs were identified. Co-expression analysis was performed between the aberrantly expressed lncRNAs and mRNAs, resulting in the construction of a lncRNA-mRNA trans-regulation network specific to CS. It was proposed that 21 lncRNAs and their target five mRNAs are key genes in CS. Potential regulatory axes, specifically lncENST00000602957.1/NLRP3 and lncT04561/NLRP3, were proposed in CS.

Keywords: lncRNA, mRNA, chronic salpingitis, expression profile, bioinformatics analyses

CS is a common pelvic inflammatory disease (PID) that significantly impacts women's health. It is associated with infertility, ectopic pregnancy, and chronic pelvic pain.

Approximately 30% of female infertility cases are attributed to tubal factors, with CS being a major contributor. The risk of infertility increases with the number of salpingitis episodes. Furthermore, the majority of ectopic pregnancies occur in the fallopian tubes, with CS being a significant risk factor.

However, the molecular mechanisms underlying CS are still not well understood.

Objective

This study aimed to investigate the pathogenesis of CS at the transcriptome level using microarray analysis.

Materials and methods

Gene chips were used to detect the expression of the genes in 4 CS and 4 normal tissue samples, and fold changes and p-value were utilized to filter the genes. Then we investigated the function of altered mRNAs by enrichment analysis through Gene Ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) databases. To understand functions of lncRNAs in CS, co-expression analysis of differentially expressed lncRNAs (DELs) and mRNAs (DEMs) and prediction of cis and trans regulatory mechanism of DELs were carried out, followed by progress and pathway enrichment of DEMs regulated by DELs. After that, a protein-protein interaction (PPI) network for these DEMs was conducted, and the key genes in PPI network was searched. Finally, we verified the differentially expression of key genes through real time-polymerase chain reaction (RT-PCR).

Results and discussion

We identified 1847 DELs and 698 DEMs in four CS and four normal tubal tissues through microarray analysis. GO and KEGG enrichment analysis revealed that the upregulated DEMs were predominantly associated with immune response

and the TNF pathway, while the downregulated DEMs were mainly involved in DNA binding and Glycosphingolipid biosynthesis-globo and isoglobo series. Co-expression analysis between lncRNAs and mRNAs was performed, and a trans-regulation network consisting of 52 DELs and their target 232 DEMs was constructed. The functional analysis of trans-acting lncRNAs indicated their involvement in biological processes such as inflammatory response and pathways, including apoptosis. A PPI network was established among the target mRNAs, leading to the identification of five key mRNAs: NLRP3, HMGB1, IL1R, IRF4, and RIPK. Additionally, 21 DELs targeting these five key mRNAs were considered the key lncRNAs. The expression levels of NLRP3, IL1R, IRF4, lncENST00000602957.1, and lncT04561 (key lncRNAs targeting NLRP3) were validated using RT-PCR. Moreover, the expression levels of the two lncRNAs showed positive linear correlations with NLRP3 expression level.

This study provides comprehensive evidence for the significant role of dysregulated lncRNAs and mRNAs in CS, which may serve as potential therapeutic targets. We propose two potential regulatory axes (lncENST00000602957.1/NLRP3 and lncT04561/NLRP3) in CS.

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EXPLORING THE COMPLEMENTARY ROLE OF AUDIO IN ACUPUNCTURE TREATMENT BASED ON THE THEORY OF THE UNITY OF HEAVEN AND MANKIND

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Abstract. The five tones - «gong, shang, jue, zhi, yu» name was first seen more than 2,600 years ago in the Spring and Autumn Period, the «Introductory Study of Huang Di Nei Jing» that music and the universe and the human body qi is closely linked to the five tones. The «Ling Shu - Five Sounds and Five Tastes» has a special discussion on the five sounds, from the nature and parts of the people belonging to the five sounds and internal organs and yin and yang meridians, respectively, and pointed out in the regulation of the meridians should be taken.

Keywords: celestial, phonetics, acupuncture, audio, astrology

When the music vibration and the human body's physiological vibration (heart rate, heart rhythm, respiration, blood pressure, pulse) coincide with the physiological resonance, resonance which is the «Chinese medicine music therapy» of the modern medical theory basis, the five planets in the universe have five seasons of peripatetic alternating movements, generating five qi, stored in the five organs. Moreover, the five gas in the body's peripheral movement channel is the meridians, the five gas to promote the operation of the meridians. The kinetic energy from the five planets rotating movement is generated by the potential energy.

Objective

In this paper, I will start from the perspective of the unity of heaven and man, and on the basis of analysing the formation laws of the five tones and the twelve rhythms, we will explore the feasibility of tone-assisted acupuncture in the treatment of diseases. In turn, it will provide new ideas for clinical treatment.

Materials and methods

Read the ancient books to understand the theoretical basis behind the ancient five tones, analyse the relationship between the five tones and twelve rhythms and the modern rhythms, select the relevant literature on the influence of audio level on the human body from CNKI ,China Science and Technology Journal Database, Wanfang data and PubMed, and analyse the feasibility of the meridian therapy with the use of audio rhythms for auxiliary therapy at the same time.

In recent years, some scientists have confirmed the vibrational nature of the universe; all things have a specific vibrational frequency, and as long as the frequency is similar to people, things and things will attract each other. Part of the audio energy resonance can create a coordinated energy field, physical and emotionally unresolved, blocking the healing resonance of the problem, which will be, in the intervening will be transformed on its own.

Some studies have shown that low-frequency

vibration, a frequency of 50Hz or less, has a greater impact on the bone and joint system, vestibular organs and the neuromuscular system; vibration from 30 to 250Hz is prone to cause vasospasm and is accompanied by neurological and muscular disorders; high-frequency vibration above 250Hz has a diminished vasospasm effect on blood vessels and an enhanced effect on the neurological and muscular system; vibration higher than 1,000Hz is difficult to be subjectively perceived. Different frequencies affect different body organs, while different intensities also have different effects.

Results and discussion

The research results of Profs. Wang Pingshan and Sun Pingsheng showed that the optimal resonance tone of meridians is in the low-frequency range of 8.5~97.3 Hz. Scholars such as Xu Jizong believed that resonance of meridians would inevitably cause changes in qi and blood circulating through the meridians, and he chose the frequency that could cause the optimal resonance of the meridians under test, which is also the frequency that the meridians' body surface temperature rises the most significantly. After testing, 32.7hz improved the microcirculation of most points in the lung meridian, 65.41hz corresponded to the large intestine meridian, and even the meridian sensing phenomenon appeared in some observed subjects. However, according to the ancient book «three-point loss and gain method», the corresponding audio frequencies of the five tones were 261.63hz for Gong (spleen), 293.66hz for Shang (lung), 329.63hz for Jiao (liver), 392hz for Zhi(heart), and 440hz for Yu(kidney), which were different from the experimental results. There is a discrepancy with the experimental results. It may be due to the long history, the interpretation of ancient literature needs to be revised, or the scope of the experimental audio is limited to a low frequency and need to be further certified by subsequent experiments. However, the data of this experiment is $p<0.01$, statistically significant, and it is possible to play the corresponding audio at the same time as acupuncture points to achieve easier access to qi and meridians and enhance the efficacy of acupuncture and moxibustion.

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RESEARCH PROGRESS OF ACUPUNCTURE IN THE TREATMENT OF POSTHERPETIC NEURALGIA

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Abstract. Postherpetic neuralgia is mostly associated with viral infection, and clinical symptoms are characterized by itching, abnormal sensation and tingling. Pathological changes in the organism mainly include neurophysiological changes and nerve sensitization. Acupuncture and moxibustion is a common treatment method in TCM, which can effectively improve the healing rate of PHN.

Keywords: postherpetic neuralgia, herpes zoster, acupuncture therapy, review

1. Define

Postherpetic neuralgia is pain that lasts for 1 month or more after the herpes zoster rash has healed and is the most common complication of herpes zoster [1]. The site of pain is commonly in the unilateral chest, trigeminal nerve (mainly the ophthalmic branch), or the neck [2].

2.Etiology and Mechanism of disease

PHN in Chinese medicine belongs to the category of snake bunches of sores, tangled waist fire Dan and even paralysis. Ancient physicians for the etiology of the disease discussed a lot, and that most of the wind, dampness, heat related to the positive deficiency of the evil love, dampness, heat and toxicity of each other, congestion of the skin.

Modern famous old Chinese medicine doctor Zhao Bingnan that [3] PHN is due to the patient's body dampness, heat and poisonous evil not exhausted, embedded in the skin, long time meridians and collaterals do not work, qi and blood congestion caused by.

3.Acupuncture and moxibustion treatment, pain relief through the network

3.1 Electroacupuncture

Electroacupuncture is a therapy that utilizes the dual action of acupuncture and specific pulse current to stimulate meridian points to achieve analgesia. Li Xian et al[2] used acyclovir, methylcobalamin and local circumferential stabbing combined with electroacupuncture on 48 cases of PHN patients in the control group, and 48 cases in the treatment group were treated with intermediate-frequency electroacupuncture on the basis of the treatment in the control group.

3.2 Stabbing

Pricking the collaterals therapy is a method of bloodletting after puncturing the local blood collaterals of the patients with three-pronged needles. In recent years, the therapeutic effect of stabbing and cupping is remarkable in the treatment of PHN patients. Studies have shown that cupping can significantly reduce the peripheral and local serum P content of patients, so as to achieve the effect of analgesia [3].

3.3 Fire acupuncture

Fire needle therapy is the rapid insertion of cauterized needles into specific parts of the body or acupoints to achieve the therapeutic purpose through high temperature sterilization, improvement of local microcirculation, increase of vascular permeability, and promotion of absorption of inflammatory reactions.

3.4 Moxibustion

Moxibustion mainly refers to the use of moxibustion fire to produce moxa heat to stimulate specific parts of the human body or acupoints, through the stimulation of the meridian to adjust the body's physiological function of the disorders, so as to achieve the therapeutic effect, which is applicable to the meridian paralysis and ulcers for a long time, and the mechanism of PHN in Chinese medicine in line with the disease.

3.5 Acupoint injection

Acupoint injection, which is the direct injection of herbal extracts into acupoints or specific parts of the body, is a combination of acupuncture and the double stimulation of herbal medicine to achieve the therapeutic purpose of dredging the meridians and regulating the yin and yang of the internal organs and qi and blood.

Objective

Providing theoretical basis and therapeutic strategy for acupuncture diagnosis and treatment of postherpetic neuralgia.

Materials and methods

This paper summarizes the clinical studies on the treatment of postherpetic neuralgia in recent years by searching, collecting and analyzing published medical journals and literature in SCI-hub, China Knowledge Network Medical Database (CNKI) and Wanfang database, and discusses the etiology and pathogenesis of postherpetic neuralgia, treatment methods and the effect of Chinese medicine treatment.

Results and discussion

The clinical efficacy of acupuncture in the treatment of PHN is remarkable and has been recognized and concerned by the international medical community, with fewer adverse reactions and side effects than Western medicine. Acupuncture treatment for middle-aged and elderly PHN has natural advantages, fewer adverse effects, higher cure rate, and can effectively relieve patients' anxiety and improve their quality of life.

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THE EFFECT OF TRADITIONAL CHINESE EXERCISES (TCES) USED FOR CERVICAL SPONDYLOSIS: A PROTOCOL FOR SYSTEMATIC REVIEW AND META-ANALYSIS

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Abstract. Cervical spondylosis (CS) is a frequent clinical disease with a young incidence population and a high recurrence due to the alternations of modern life and work style. Traditional Chinese exercises (TCEs) have now been accepted by the public for their ease of learning and promotion. We executed this systematic review to appraise the curative effect and safety for CS patients to supply a reliable basis for clinical practice.

Keywords: traditional Chinese exercises, cervical spondylosis, meta-analysis, protocol, cervical spine function

Cervical spondylosis (CS) is a general term for proliferative cervical spondylitis, cervical osteoarthritis, cervical disc herniation, as well as cervical nerve root syndrome [1]. It caused by intervertebral disc degeneration, proliferative vertebral lesions, and the compression of the cervical nerve root and/or spinal cord[2].The causes of CS are various, and the common causes are age factors, mental factors, trauma, improper working posture, and chronic strain. With the alternations of modern life and work style, the prevalence of work-related musculoskeletal disorders is increasing worldwide[3]. The studies have uncovered that the prevalence of CS in China is 12.25%-15.97%.This not only brings great pain to patients but also brings a heavy economic burden to the patient's families and society. As a result, CS treatment and prevention has become a health problem urgently to be solved in today's society.There are many clinical treatment therapies for CS, including surgical and non-surgical approaches. Non-surgical approaches consist of Chinese exercise therapy, physical therapy, small needle knife therapy, drug therapy, acupuncture, as well as massage therapy. The surgical method of western medicine has a good therapeutic effect, but it has a high risk and may have adverse reactions. Traditional Chinese exercises (TCEs) originated in China and TCEs are the clinically commonly utilized treatment methods for diverse diseases and have now been accepted by the public [4]. It requires very little equipment and is not limited by location or facility. TCEs are inexpensive and may benefit physical function in contrast to pharmacological approaches . It is broadly applied in the conservative treatment of CS due to its effective and easy-to-accept characteristics. But relevant studies on the TCEs are limited. For addressing the effectiveness of TCE therapy for CS , randomized controlled trials (RCTs) with high quality should be used to process the data based on evidence-based medicine, thereby evaluating its effectiveness to supply a basis for clinical practice.

Objective

We executed this systematic review to appraise the curative effect and safety for CS patients to supply a reliable basis for clinical practice.

Materials and methods

We will search the following 7 databases from their inception to December 2022:China National Knowledge Infrastructure,WanFang Database,VIP Database for Chinese Technical Periodicals,Chinese Biomedicine,PubMed, Embase,the Cochrane Library. All relevant randomized controlled trials (RCTs) regarding the influences of TCEs on CS were recruited in our analysis, followed by literature screening, data acquisition, as well as literature quality appraisal. Data analysis was implemented with RevMan 5.4 software.

Results and discussion

CS with the main clinical manifestations of head, neck, shoulder, and arm pain. It is now generally accepted that the causes of CS mainly include chronic strain, trauma, inflammation, and congenital dysplasia or defects.Baduanjin, Tai Chi, Wuqinxi, and Liuzijue are the main approaches for TCEs, which have the properties of dredging meridians, removing blood stasis, and promoting blood circulation. These exercises have similar characteristics; gentle movements were coordinated with slow breathing, muscle stretching and relaxation, meditative mental states, and proprioceptive awareness (mental focus). In the current treatment of CS, surgery, traction, and exercise can restore cervical curvature. Nevertheless, investigations on the mechanisms underlying the beneficial influences of TCEs are just started. TCEs stimulate natural self-regulatory capabilities and the balanced release of various natural health-recovery mechanisms with endogenous neurohormones.

This paper supplies strong evidence for TCEs in treating CS from the perspective of evidence-based medicine.

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MECHANISMS OF CINNAMON IN TREATING LUNG ADENOCARCINOMA EXPLORED THROUGH NETWORK PHARMACOLOGY

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Abstract. Objective: This study explores the mechanisms of cinnamon in treating lung adenocarcinoma using network pharmacology. Methods: Analysis was conducted using TCMSP, GeneCards, Cytoscape, Venny, and DAVID databases. Results: Key components of cinnamon in treating lung adenocarcinoma were identified, including Linoleic Acid, and 11 key target proteins, mainly involving HSP90AA1. Enrichment analysis revealed 14 significant pathways, including «Proteoglycans in cancer.» Conclusion: Cinnamon's therapeutic effect on lung adenocarcinoma might be related to the modulation of T cell growth and differentiation and inhibition of lung adenocarcinoma-related pathways.

Keywords: Cinnamon; Lung Adenocarcinoma; Network Pharmacology; T cells; TCMSP

Cinnamon, as a commonly used traditional Chinese medicine in clinical practice, has its anticancer properties often overlooked. This article employs network pharmacology to explore the mechanisms of cinnamon in treating lung adenocarcinoma.

Objective

The anticancer effects of cinnamon have been overlooked. This study employs network pharmacology to investigate the mechanisms of cinnamon in treating lung adenocarcinoma.

Materials and methods

1.1 Collection and screening of main chemical components of cinnamon

The main chemical components of cinnamon were retrieved from TCMSP[1], with screening criteria of oral bioavailability (OB) ≥ 30% and drug-likeness (DL) ≥ 0.1.

1.2 Collection of active ingredient targets and fever-related disease targets

Active ingredient targets were collected from the PharmMapper database using a Z'-score ≥ 1.5 and top 15 as the threshold. Potential targets related to « Lung Adenocarcinoma « were searched in GeneCards database.

1.3 Construction of Protein-Protein Interaction (PPI) network and collection of action targets

Active ingredient targets and disease targets were imported into the STRING database (confidence interval > 0.400) to construct a PPI network. Cytoscape 3.8 was used for topological analysis, and hub nodes were identified. The intersection of active ingredient targets, lung adenocarcinoma disease targets, and core nodes were considered as the action targets for cinnamon in treating lung adenocarcinoma. The Centiscape2.2 plugin of Cytoscape was used for further topological analysis to select key components and key targets.

1.4 Biological process annotation and metabolic pathway analysis

Predicted key targets from 1.3 were imported into DAVID 6.8 database for GO functional annotation and KEGG pathway enrichment analysis ($P < 0.01$). The top two entries of biological process (BP), cellular component (CC), molecular function (MF), and KEGG pathways were considered as the main pathways for cinnamon in treating lung adenocarcinoma.

Results and discussion

Screening of cinnamon's chemical components yielded 11 active compounds.

2.1 Analysis of cinnamon's targets for treating lung adenocarcinoma

PharmMapper predicted a total of 121 active compound targets. After removing duplicates

from the GeneCards database, 8107 lung adenocarcinoma-related targets were obtained. Cytoscape analysis revealed 105 core nodes, and a total of 109 action targets were obtained through Venny analysis.

2.2 Determination of key components and key targets

11 core targets were identified, with Linoleic Acid, zoomaric acid, and oleic acid being the top three compounds associated with the most targets.

2.4 GO functional annotation analysis

9 entries related to BP were identified, including cellular response to estradiol stimulus and response to estrogen. For CC, 2 entries were found, mainly macromolecular complex and nucleus. Regarding MF, 5 entries were identified, including nitric-oxide synthase regulator activity and enzyme binding.

2.5 KEGG pathway enrichment analysis

DAVID analysis revealed 14 significant pathways associated with cinnamon's key targets for treating lung adenocarcinoma, including «Proteoglycans in cancer» and «Endocrine resistance.»

Among the identified active compounds, zoomaric acid has been reported as a major active component in inhibiting lung cancer cells (A549). The ESR1 signaling pathway may be associated with the tumor microenvironment factors affecting T cell infiltration[2], and IL2 is involved in T cell growth, proliferation, and differentiation[3]. Therefore, cinnamon may exert its effects through influencing T cell microenvironment and growth differentiation processes. The presence of «Proteoglycans in cancer» as a significant pathway further supports cinnamon's therapeutic efficacy and potential mechanisms in treating lung adenocarcinoma.

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CLINICAL OBSERVATION BASED ON THE COMBINATION OF THUNDER-FIRE MOXIBUSTION AND THUMBTACK NEEDLE FOR THE TREATMENT OF KNEE OSTEOARTHRITIS (YANG DEFICIENCY AND COLD COAGULATION SYNDROME)

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Abstract. Thunder-fire moxibustion combined with thumbtack needle is worthy to be promoted in clinical on the therapy of knee osteoarthritis (yang deficiency and cold coagulation syndrome) . Such method could effectively relieve patients' pain, and be able to improve the function of patients with knee joint.

Keywords: knee osteoarthritis, thunder-fire moxibustion, thumbtack needle

Osteoarthritis of the knee is characterised by knee pain, disability and degenerative changes, while the disease etiology and pathogenesis has not been fully elucidated, not to mention certain effective treatment methods[1]. Clinically, when it comes to the disease of knee osteoarthritis (yang deficiency and cold coagulation syndrome), we adopt the treatment of thunder-fire moxibustion combined with thumbtack needle, which can effectively alleviate the clinical symptoms of patients with stiff knee joint swelling and pain.

Objective

This research involved in two different therapies: thumbtack needle combined with thunder-fire moxibustion as well as general acupuncture with thunder-fire moxibustion, to observe and to contrast the curative difference from these two different therapies in treating the clinical symptoms of knee osteoarthritis (yang deficiency and cold coagulation syndrome), and then to provide theoretical basis and clinical guidance for the prevention and treatment of knee osteoarthritis with yang deficiency and cold coagulation syndrome.

Materials and methods

Thumbtack needles (0.20 mm × 1.5mm), acupuncture needles(0.35 mm×40 mm), thunder-fire moxibustions.

40 patients were randomly divided into two groups: treatment group and control group, 20 patients in each group. Treatment group was treated with thumbtack needle combined with thunder-fire moxibustion; while control group was treated with ordinary acupuncture and thunder-fire moxibustion. We carried these therapies 1 times a day, after a course of 6 days, had a rest of 1 day, compared the effect after 2 courses of treatment.

1. Treatment group

1.1 Thumbtack needle treatment: Acupuncture points:Neixiyan, Waixiyan, Heding, Zusanli, Yanglingquan, and Guanyuan, on the affected side. Operation: The above points for regular disinfection, choose 0.20mm×1.5mm Seirin Pyonex needles, directly press the needle on these points, inform patients to stimulus these buried needle 2 ~ 3 times per day, and pay attention to keep the local clean, get the needle off and replace them once a day, when it appear local pain, skin redness, itching or other symptoms, remove the needles immediately in order to avoid infection.

1.2 Thunder-fire moxibustion treatment: Lighting the moxibustion, 4–5 cm from the skin, respectively for moxibustion on these points, each part for 5min, moxibustion to skin redness.

2. Control group

2.1 General needle treatment: Acupuncture points is the same as the thumbtack needle treatment. Operation: Advice the patient supine and bend knees, regular disinfection above points, choose 0.35mm×40mm acupuncture needles. When acupuncture Neixiyan and Waixiyan, the needle tip is supposed to insert directly toward to the knee join, about 20–30mm, when it comes to Heding, Zusanli, Yanglingquan, and Guanyuan, the needle tip keeps 90º into the skin, Guanyuan inserts 20–25cm while others about 20–30mm, manipulating needles to obtain qi with neutral supplementation and draining method, then retain needles for 40min.

2.2 Thunder-fire moxibustion treatment is the same as the treatment group.

Results and discussion

Compared with pretreatment,the total effective rate of the treatment group was 96.30%, while acupuncture combined with thunder-fire moxibustion only was 85.20%, we can draw the conclusion that our new method is superior in the trearment of knee osteoarthritis (yang deficiency and cold coagulation syndrome).

Thunder fire moxibustion is strongly in effection and good at warming the cold, activing the circulation of blood and reliving the pain, can repair the Yang qi of human. Thumbtack needle therapy is the development of the traditional acupuncture needle. To sum up, thunder-fire moxibustion combined with thumbtack needle is effective on the therapy of knee osteoarthritis (yang deficiency and cold coagulation syndrome) . It has several merits as follows: simplely operation, little pain and a significant curative effect, meanwhile it can effectively alleviate the clinical symptoms of patients with knee joint swelling pain and improve the function of patients with knee joint. However, through the above treatment, the patients clinical symptoms disappeared or eliminate, there were no changes in the X-ray, it may also have the hazard of recurrence. Thus in daily life, patients with the disease are supposed to improve their consciousness of prevention, do not walk for a long time, do not feel the cold, while do some exercise to strengthen the knee joint.

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EFFECT OF SUANZAOREN DECOCTION ON SYNAPTIC PLASTICITY REGULATED BY ASTROCYTES IN THE AMYGDALA REGION OF ANXIOUS RATS

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Abstract. In this experiment, the Amygdala area was selected as the research brain area, and it was planned to replicate the state anxiety model of rats through conditional fear. Using the cross-maze experiment, immunohistochemistry, protein imprinting, and real-time fluorescent quantitative PCR experimental techniques, we investigated the effect of Suanzaoren Decoction on the behavior of rats with state anxiety caused by conditional fear, and the expression of glutamate transporter-related proteins in the Amygdala. We found that Suanzaoren Decoction has a significant anti-anxiety effect. The mechanism of action may be related to reducing the expression of GFAP, GS, GLT-1, and GLAST transporters.

Keywords: Suanzaoren Decoction; Anxiety; Amygdala;Synaptic plasticity

According to research reports, approximately 273 million people worldwide suffer from anxiety disorders, and in recent years, particular attention has been paid to the role of glutamate metabolism in the pathogenesis of anxiety disorders. Modern research has shown that star-shaped glial cells can enhance the reuptake and metabolism of dopamine in synaptic gaps, thereby regulating the excitatory toxicity of excessive glutamate on neurons. The Suanzaoren decoction, earliest recorded in the «Synopsis of the Golden Chamber», is composed of Sour Jujube Seed, Anemarrhena, Chuanxiong, Poria Cocos, and Licorice. It is a classic formula that tones the blood and regulates the liver, nourishes the heart and calms the mind, and clears heat and troubles. There have been no reports on the expression of glutamate transporter-related proteins or the anti-anxiety mechanism of Suanzaoren decoction in astrocytes.

Objective

The effects of Suanzaoren Decoction on the expression of glutamate transporter-related proteins in the Amygdala region of anxiety rats were investigated using the conditioned fear-induced anxiety model.

Materials and methods

The elevated cross-maze test was used to evaluate the behavior of anxiety rats. The protein and gene expression changes of GFAP, GS, GLAST, and GLT-1 transporters in the Amygdala region of rats were detected by IHC, WB, and qRT-PCR, respectively.

Results and discussion

Compared with the model group, the number of arm opening times, percentage of arm opening/ total arm entering times, arm opening movement time, and percentage of arm opening/total movement time in the Suanzaoren decoction group significantly increased ($P<0.01$); The expression of GFAP in the amygdala of rats in the Suanzaoren decoction group was significantly reduced ($P<0.01$); and the protein expression and gene expression of intracellular GFAP, GS, as well as GLT-1 and GLAST transporters on the cell membrane were reduced ($P<0.05$, $P<0.01$). The research results indicate that Suanzaoren Tang has significant anti-anxiety effects, and its mechanism of action may be related to reducing the expression of GFAP, GS, GLT-1, and GLAST transporters.

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INNOVATIVE DIAGNOSTIC AND TREAMENT DEVELOPMENT OF TRADITIONAL MEDICINE IN RUSSIA AND CHINA

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Abstract Traditional Russian medicine is mainly divided into two categories: one is the local traditional medical treatment methods. Russia has a vast territory and rich resources. There have been some folk applications of herbal medicine to treat diseases, as well as traditional Chinese medicine acupuncture and moxibustion and traditional Chinese medicine. Another type is the treatment methods introduced from traditional medicine. In the 19th century, Tibetan doctors from the Tibetan region of China arrived in the Russian capital St. Petersburg and opened a Tibetan medical clinic. They used Tibetan medicine to treat diseases and cured many diseases that were difficult to treat by Western medicine at that time, achieving good therapeutic effects and having a significant impact.This paper takes the development of traditional medicine as starting point to discuss the innovative diagnostic and therapeutic methods of Russian and Chinese traditional medicine.

Keywords: Russia, China, Traditional Medicine, Traditional medicine, Acupuncture

Russia is the largest country in the world, with a large geographical span, diverse environment, and complex terrain[1]. It is also a country where modern medicine plays a dominant role in the field of healthcare. In recent years, the treatment methods of traditional medicine have attracted widespread attention from the Russian people. For many years, Russians have been accustomed to making raspberries into jam in the summer and using them to make hot tea and treat colds in the winter and spring. At the same time, it is also believed that this type of wild fruit is rich in nutrients, and regular consumption can enhance physical fitness and prevent colds. Research has confirmed that it contains multiple vitamins and more than ten amino acids. Regular consumption can improve the body's metabolism and enhance disease resistance.

Objective

To explore innovative diagnostic and therapeutic methods in Russian and Chinese traditional medicine using the development of traditional medicine acupuncture as an entry point.

Materials and Methods

We reviewed the relevant literature on the Interne to study the innovative diagnostic and therapeutic methods of Russian and Chinese traditional medicine.

Results and Discussion

In recent years, acupoint therapy devices have been widely used among the Russian people. It can be divided into the following categories: laser acupoint therapy devices, acupoint electrotherapy devices for medical units, and small household acupoint electrotherapy devices [2]. The application of acupoint diagnostic and therapeutic devices in diagnostics has been ongoing since the Soviet era. Today, in every major city with a population of over a million in Russia, there are more than a dozen such computer acupoint diagnostic devices, which are generally used in medical clinics of non-public medical enterprises.

Russia is the country with the richest forest resources in the world, and its good vegetation indicates its abundant herbal resources. Traditional Chinese medicine is also popular in the Russian medical market. In countries where modern medicine dominates the healthcare field, people have a better understanding of the clinical side effects and hazards of chemicals. Russians from all walks of life are increasingly paying attention to traditional medical methods for treating diseases. With the increase of political, economic and cultural exchanges between China and Russia, the Russian people have more and more understanding of Chinese traditional medicine. In the past, Russians only knew about the acupuncture and moxibustion treatment of traditional Chinese medicine, and knew that ginseng was a traditional Chinese medicine. Now many Russians have learned that there are hundreds of pieces of traditional Chinese medicine, which can not only be used as decoction for curing diseases, but also many traditional Chinese patent medicines and simple preparations with remarkable curative effects.

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TREATMENT OF ISOLATED DIASTOLIC HYPERTENSION BASED ON DAMP-HEAT THEORY

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Abstract. Objectives To observe the clinical efficacy of treating isolated systolic hypertension in the diastolic phase (IDH) based on the theory of damp-heat pathogenesis in Traditional Chinese Medicine (TCM). Methods A retrospective case analysis was conducted on 121 outpatient IDH patients treated with a comprehensive therapy based on the damp-heat pathogenesis theory. The treatment consisted of Wen Dan Tang combined with Ban Xia Bai Zhu Tian Ma Tang and modified with Chen Pi, Jiang Ban Xia, Fu Shen, Sheng Gan Cao, Sheng Bai Zhu, Zhi Shi, Zhu Ru, Huang Qin, Sheng Di Huang, Chao Shan Zha, Jiu Shao, Mu Dan Pi, and Tian Ma. The clinical efficacy was analyzed. Results Significant improvement was observed in 70 cases, effectively treated in 32 cases, and the treatment was ineffective in 19 cases, resulting in an overall effective rate of 84.30%. Conclusion The treatment of IDH based on the theory of damp-heat pathogenesis shows a relatively high efficacy rate, providing certain guiding significance in clinical practice.

Keywords: IDH, Damp-Heat,Complex Decotion,Banxia Baizhu Tianma Decoction,Gallbladder-Warming Decoction

IDH, or Isolated Diastolic Hypertension, is defined as systolic blood pressure (SBP) less than 140 mmHg and diastolic blood pressure (DBP) equal to or greater than 90 mmHg. It is commonly seen in young and middle-aged individuals. According to the National Health and Nutrition Examination Survey in the United States, 46.9% of untreated young and middle-aged hypertensive patients under the age of 50 exhibit IDH, and this proportion increases to 55% among those under 40 years of age. The overall prevalence of IDH is 2.6%[1]. Professor Zhang Fuli believes that IDH should be treated based on the theory of Dampness and Heat, as it is a result of the accumulation and derivation of dampness and heat caused by long-term unhealthy lifestyle habits and social environment-related anxiety. The pathogenesis of IDH involves the combination of dampness, heat, and phlegm, where heat causes the evaporation of dampness into phlegm. This leads to stagnation of vital energy (qi) and the prevalence of pathogenic heat-toxin. Phlegm and blood stasis coexist in the body, resulting in changes in the pathogenesis, including impairment of vital energy and yin-fluid.

Objective

To observe the clinical efficacy of treating isolated diastolic hypertension (IDH) based on the theory of Dampness and Heat.

Materials and methods

121 cases of hypertension patients aged 20 to 55 years who were treated at the Outpatient Department of the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine from September 1, 2021, to July 1, 2023.

Diagnostic criteria: Western medical diagnostic criteria: According to the «Chinese Guidelines for the Prevention and Treatment of Hypertension (Revised Edition 2018)»[2], the diagnostic criteria are SBP less than 140 mmHg and DBP greater than or equal to 90 mmHg. (2) Modern epidemiological criteria: In addition to meeting the diagnostic criteria for Western medicine, there should be a collection of three or more of the following epidemiological risk factors: obesity, smoking, excessive alcohol consumption, high-fat diet, and lack of physical activity. (3) Clinical manifestations: dizziness, severe headaches, heaviness and fatigue of the body, stuffiness in the chest and epigastric region, phlegm expectoration, palpitations, insomnia, a bitter taste in the mouth, poor appetite, thick and greasy tongue coating, and slippery pulse. Greasy tongue coating is a necessary symptom. Patients who meet the above criteria and provide informed consent are included in the study.

Exclusion criteria: (1) Stage II and III hypertension. (2) Secondary hypertension. (3) Patients with severe diseases affecting the hematopoietic system, heart, brain, or kidneys. (4) Patients who do not agree to cooperate or cannot complete the treatment due to work-related reasons, etc.

Treatment method: The prescription consists of Gallbladder-Warming Decoction combined with Banxia Baizhu Tianma Decoction plus modifications. The composition includes 15g of Chen Pi, 15g of ginger and Pinellia, 15g of Fu Shen, 10g of raw licorice, 20g of white atractylodes, 15g of bitter orange, 15g of bamboo shavings, 15g of Scutellaria, 30g of raw Rehmannia, 25g of fried hawthorn, 30g of Jiu Shao, 10g of Moutan bark, and 10g of Tian Ma. The decoction is taken orally once daily (300ml) and divided into two doses. Each course of treatment lasts for 20 days, with a total of 2 courses.

Method: Using a retrospective case analysis, the clinical efficacy of treating IDH using the comprehensive treatment method based on

the theory of Dampness and Heat, namely, the prescription Wen Dan Tang combined with Ban Xia Bai Zhu Tian Ma Tang plus modifications, was analyzed in 121 outpatient cases.

Results and discussion

After treatment, the antihypertensive effect in IDH patients showed significant improvement in 70 cases, effectiveness in 32 cases, and ineffectiveness in 19 cases, with a total effective rate of 84.30%.

The prescription takes into consideration the constitution and pathogenesis characteristics of IDH, primarily focusing on eliminating dampness, phlegm, and stagnant heat, while also addressing blood stasis obstruction, meridian congestion, and reversing the rise of phlegm. The herbs Chen Pi, ginger, Pinellia, and Poria are used to regulate vital energy and eliminate dampness and phlegm. Herbs such as San Qi, fried hawthorn, and Jiu Shao are used for promoting blood circulation and resolving stasis. Tian Ma and white atractylodes are used to suppress wind and counterflow of phlegm. The overall prescription aims to resolve phlegm and stasis, harmonize vital energy and blood circulation, while also aiding digestion and promoting meridian flow.

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CLINICAL EFFECT OF ACUPOINT CATGUT EMBEDDING ON DYSPHAGIA AFTER STROKE

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Abstract. This article introduces a new treatment method for post-stroke dysphagia, acupoint catgut embedding therapy. In this study, 68 patients with post-stroke dysphagia were randomly divided into two groups, with 34 patients in each group. The control group was treated with swallowing training, and the treatment group was treated with acupoint catgut embedding on the basis of the control group. It was observed that acupoint catgut embedding therapy could significantly reduce SWAL-QOL score and improve swallowing function of patients.

Keywords: Acupoint catgut embedding, Stroke, Dysphagia

Dysphagia after stroke has been listed in the tenth edition of the International Classification of Diseases and the International Classification of Functioning, Disability and Health by WHO. Affected by eating difficulties, patients have an increased risk of recurrent stroke, electrolyte imbalance, aspiration asphyxia, psychological disorders, malnutrition, pressure ulcers, and even death, which is not conducive to the quality of life, rehabilitation, and prognosis of patients.

Acupoint thread-embedding combines the meridian theory of acupuncture and moxibustion with modern nerve, physiology and anatomy, and makes up for the shortcomings of traditional acupuncture such as short stimulation time and difficult consolidation of curative effect. It has the advantages of simple operation, stable and significant curative effect, and high patient compliance. To promote the recovery of swallowing function after stroke.

Objective

This study aims to explore the clinical effect of acupoint catgut embedding therapy on dysphagia after stroke.

Materials and methods

A total of 68 patients who were in line with this study were collected and divided into control group and treatment group by random number table method, with 34 cases in each group. There were 19 males and 15 females in the treatment group, aged 57.32-69.98 (63.65±6.33) years. There were 17 males and 17 females in the control group, aged 68.28-55.44 (61.85±6.43) years.

Inclusion criteria: 1) meeting the diagnostic criteria of «Stroke Diagnosis and efficacy Evaluation Criteria»; 2) Confirmed diagnosis by imaging examination; 3) first stroke; 4) Dysphagia was confirmed by Kubota drinking test; 5) complete and undistorted data; 6)know the study and sign the informed consent.

Exclusion criteria: 1) patients with autoimmune and blood diseases; 2) malignant lesions in organs and tissues; 3) with neuropsychiatric diseases and cognitive dysfunction; 4) Unable to swallow at all.

The control group was treated with swallowing training. The treatment was given once a day, 30 minutes each time, 5 times a week for 6 weeks.The treatment group was treated with acupoint catgut embedding therapy on the basis of the treatment of the control group. The acupoint selection scheme is as follows: tongue three needles at the main acupoint. The empirical acupoints of phlegm-heat Fu: Zhongwan, Bilateral Zhidou, Tianshu. The acupoints of liver-yang hyperactivity syndrome are bilateral Fengchi, Taixi, Taichong. The combination of wind-phlegm blocking collaterals: bilateral Fengchi, Fenglong, Taichong. Qi deficiency and blood stasis syndrome: bilateral Xuehai, Zusanli and Sanyinjiao. The treatment was given once every 2 weeks, 3 times as a course of treatment, and the curative effect was observed after a course of treatment.

Results and discussion

The baseline data of all patients before treatment were statistically analyzed, and there was no significant difference between the two groups ($P > 0.05$). After treatment, the total effective rate of the treatment group was significantly higher than that of the control group, and the difference was statistically significant ($P<0.05$). After treatment, the swallowing function and SWAL-QOL scores of the two groups were significantly lower than those before treatment, and the scores of the treatment group were lower than those of the control group, and the differences were statistically significant ($P<0.05$).

In traditional medicine, dysphagia after stroke is classified as «stroke», «mute miliaria», and «throat impediment» according to its main symptoms. It is recorded in works such as Fengtongue Strong Cannot Yu Hou and Miraculous Shu that the running course of the twelve meridians is directly or indirectly related to the pharynx. Due to wind, fire, phlegm, blood stasis, deficiency and other factors, the imbalance of Yin and Yang in the body, the imbalance of qi and blood, obstruction of meridians, and unfavorable oropharyngeal cavity are caused by dysphagia. The continuous and stable stimulation can activate the connection between tongue and meridians, adjust qi and blood of meridians, promote the passage of orifices, restore the balance of Yin and Yang of zangfu organs, and promote the recovery of swallowing function.

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INNOVATIONS IN THE TREATMENT OF HELICOBACTER PYLORI IN THE CONTEXT OF THE NEW ERA OF RUSSIAN AND CHINESE TRADITIONAL MEDICINE

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Abstract. This article introduces the innovation of Russian and Chinese traditional medicine in the treatment of Helicobacter pylori in the context of the new era. Applying traditional Chinese medicine, traditional Chinese medicine, acupuncture and other traditional Chinese medicine techniques are used to treat Helicobacter pylori patients to eliminate pain symptoms and the overall healing of the body. Promote the new development of traditional medicine, let the world enjoy the new achievements of traditional medicine, let traditional medicine complement each other's strengths, and let traditional medicine go to the world.

Keywords: Russia; Helicobacter pylori; Traditional Chinese Medicine; treatment methods; innovation

Helicobacter pylori is the main causative factor of peptic ulcer, which is closely related to the pathogenesis of gastric ulcer, gastritis and gastric cancer, and is the main factor in the pathogenesis and recurrence of chronic gastritis. A large number of research results show that traditional Chinese medicine has various methods, good efficacy and low recurrence rate in the treatment of Helicobacter pylori, which is conducive to improving the problems of drug resistance, toxic side effects, intestinal flora disorders, and high recurrence rate of simple western medicine.

Traditional Chinese medicine treatment of Helicobacter pylori is not only to eliminate Helicobacter pylori, but by stimulating the qi of the human meridians, regulating and promoting the operation of qi and blood, correcting and restoring gastrointestinal function, adjusting various functions of the stomach to the best, killing Helicobacter pylori through the body's immunity to restore gastric function to normal. In this way, Helicobacter pylori has no living space and will no longer recur after cure.

Patients can take relevant drugs on the basis of differentiation, such as fragrant sand stomach pills, liver thinning pills or using dandelion, sand kernel, wild chrysanthemum, poria and other traditional Chinese medicines to inhibit gastric acid secretion, through the spleen and water, regulate the spleen and stomach and other methods of treatment, patients can also take Sijunzi soup and other drugs for treatment, can also cooperate with acupuncture treatment.

Objective

The use of traditional Chinese medicine, acupuncture and other traditional Chinese medicine techniques to treat patients with Helicobacter pylori reveals the importance of traditional Chinese medicine to the health and well-being of the people in the medical and health fields of China and Russia.

Materials and methods

Traditional Chinese medicine, acupuncture and other TCM techniques are used to treat patients with Helicobacter pylori to eliminate pain symptoms and the overall healing of the body.

Results and discussion

Traditional Chinese medicine is a treasure of China's long history and culture, and has many similarities with traditional Russian medicine. Russia studies the content of an isotope of carbon in exhaled gas to determine whether the human body contains Helicobacter pylori, thereby diagnosing whether the tested person has gastritis, ulcers, and even tumors. Traditional Chinese medicine has the saying of «looking, smelling, asking, and cutting», of which «smell» is the use of body odor to diagnose diseases, which is similar to the Russian diagnostic method of using lasers to identify the composition of other people's exhaled gas and the concentration of various components. The acupuncture and tuina therapy of traditional Chinese medicine enjoys a high degree of recognition in Russia, and more and more Russian people personally feel the breadth and depth of traditional Chinese medicine, as well as the important value of traditional Chinese medicine treatment and health care. It is hoped that China and Russia can further strengthen exchanges and cooperation in the future, promote the prosperity and development of traditional medicine in China and Russia, work together to improve the health and well-being of the Chinese and Russian people, and make new contributions to building a community of human health and health.

The use of traditional Chinese medicine, acupuncture and other traditional Chinese medicine techniques can effectively treat patients with Helicobacter pylori, realizing the innovation of traditional Chinese and Russian medicine treatment methods.

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STUDY ON CHEMICAL CONSTITUENTS OF GENTIANELLA ACUTA HULTEN

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Abstract. To study the chemical composition of the Gentianella acuta (MICHX.) Hulten.Using ethanol heating extraction Three compounds were separated by forward silica gel column chromatography, ODS column chromatography and preparative HPLC. Four compounds were isolated and identified as 8-O-β-D-glucopyranosyl-1,5-dihydroxy-3-methoxyxa (1), boschnaloside (2), 1-hydroxy-3,4-dimethoxyxanthone-7-O-β-D-glucopyr (3), bosnarol (4).

Keywords: Gentianella acuta (MICHX.) Hulten, chemical constituents, structural identification, Iridoid terpenes, Xanthone

Gentianella acuta (MICHX) Hulten is a Gentianella acuta herb of the genus Gentianaceae. It is cold in nature and bitter in taste, with heat detoxification, cholagogue effect, indications: arrhythmia, jaundice, headache, fever, dry mouth and other symptoms. Modern pharmacological studies have shown that Gentianella acuta also has anti-tumor, anti-inflammatory, anti-depressive and anti-oxidant effects. It has long been used by Da Hinggan Ling Prefecture and residents in Inner Mongolia to prevent and treat cardiovascular diseases such as arrhythmias.

Objective

According to the study of its chemical components, the study of the activity of the medicinal materials of Gentianella acuta is carried out to provide a theoretical basis for the development of new medicines and health products of Gentianella acuta.

Materials and methods

Continuous reflux extraction of 70% ethanol was carried out from the whole plant. Macroporous resin column, silica gel column, ODS column and preparative HPLC were used to separate and purify the chemical components of Gentianella acuta. The structures of the compounds were identified by spectroscopic methods such as MS and 1H-NMR.

Compound 1 is a Yellow needle crystal. 13C-NMR (150 MHz, DMSO-d6) δ: 163.5 (C-1), 97.6 (C-2), 166.8 (C-3), 92.1 (C-4), 157.1 (C-4a), 146.0 (C-4b), 142.4 (C-5), 121.7 (C-6), 112.9 (C-7), 150.6 (C-8), 113.6 (C-8a), 105.4 (C-8b), 182.0 (C-9), 62.3 (C-1'), 68.6 (C-2'), 53.5 (C-3'), 70.9 (C-4'), 78.8 (C-5'), 62.2 (C-6'), 55.7 (C-3-Me). The above data is consistent with the literature data, so it is identified as 8-O-β-D-glucopyranosyl-1,5-dihydroxy-3-methoxyxa [1].

Compound 2 is a Yellow needle crystal. 13C-NMR (150 MHz, DMSO-d6) δ: 88.0 (C-1), 154.7 (C-3), 27.6 (C-4), 27.6 (C-5), 21.8 (C-6), 24.1 (C-7), 22.9 (C-8), 34.6 (C-9), 7.15 (C-10), 183.6 (C-11), 90.4 (C-1'), 65.3 (C-2'), 69 (C-3'), 62.3 (C-4'), 68.6 (C-5'), 53.5 (C-6'). The above data is consistent with the literature data, so it is identified as boschnaloside [2].

Compound 3 is a Yellow powder. 13C-NMR (150 MHz, DMSO-d6) δ:159.3 (C-1), 97.6 (C-2), 160.2 (C-3), 128.9 (C-4), 149.2 (C-4a), 151.4 (C-4b), 142.4 (C-5), 121.7 (C-6), 112.9 (C-7), 150.6 (C-8), 113.6 (C-8a), 105.4 (C-8b), 182.0 (C-9), 104.3 (C-1'), 74.8 (C-2'), 77.2 (C-3'), 70.9 (C-4'), 78.8 (C-5'), 62.1 (C-6'), 55.7 (C-3-Me), 56.2 (C-4-Me). The above data is consistent with the literature data, so it is identified as 1-hydroxy-3,4-dimethoxyxanthone-7-O-β-D-glucopyr [3].

Compound 4 is a Colorless oil,. 13C-NMR (150 MHz, DMSO-d6) δ: 96.2 (C-1), 163.4 (C-3), 123.6 (C-4), 32.8 (C-5), 30.5 (C-6), 31.7 (C-7), 36.4 (C-8), 44.2 (C-9), 17.1 (C-10), 191.4 (C-11).The above data is consistent with the literature data, so it is identified as bosnarol [4].

Results and discussion

Gentianella acuta is a kind of traditional Chinese medicine with a long history. It has many kinds, rich resources, complex chemical composition and various activities. It has antioxidant, anti-inflammatory, liver protection, hypoglycemic, antibacterial and other pharmacological activities. In this study, two iridoid compounds and two xanthones were isolated and identified from Pseudogentiana acutifolia. The results of this study enriched the compound library of Pseudogentiana acuminata, and provided theoretical basis for the development of new drugs and health products, so as to better develop and utilize the drug.

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MODERN RESEARCH PROGRESS OF CHELIDONINE IN EXTRACTION, ISOLATION, PHARMACOLOGIAL ACTION

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Abstract. Chelidonine is a kind of benzophanidine alkaloids extracted from natural plants, which is one of the main active components in Chelidonium majus L. It has a variety of biological activities, such as antitumor, analgesic, antibacterial, spasmolytic and others, especially for the past few years, its antitumor effect has been widely concerned. In this paper, the extraction and separation methods, pharmacological effects, and related mechanisms of chelidonine were reviewed by referring to the literatures at home and abroad in recent years, providing reference for the future research and application of chelidonine.

Keywords: chelidonine;pharmacological activities; research progress

Objective

We expect that this review would provide a theoretical basis and valuable data for future in-depth studies and applications.

Materials and methods

By consulting the literature and collating.

Results and discuss

1 Extraction and Separation of chelidonine

Studies have reported that alkaloids were extracted by decoction, hot soaking and Soxhlet reflux extraction using whole grass of Chelidonium majus L, which displayed that the Soxhlet extraction method has the best effect. Some scholars have found that when chelidonine is used as the target substance, the ultrasonic extraction method is better than the hot dip extraction method. Chelidonine was extracted under ultrasonic and wave-water bath, and the results showed that the ultrasonic extraction rate was much higher than that extracted in wave-water bath. In summary, for the extraction of chelidonine, soxhlet extraction is more suitable.

2 Pharmacological effects of chelidonine

2.1 Analgesic effect

Through reviewing the literature, it was found that chelidonine has a significant analgesic effect, and which is mainly peripheral, and it is not antagonized by naloxone, indicating that its analgesic effect is not morphine receptor-mediated.

2.2 Antitussive, expectorant and antiasthmatic action

The components that relieving cough and asthma of Chelidonium majus L. are chelidonine and chelerythrine, their mechanism of action may inhibit the role of bronchial smooth muscle contraction.It has also been proved that chelidonine can inhibit the cough center to achieve antitussive effect, and play a asthmatic effect by antihistamine and parasympathetic inhibition.

2.3 Antitumor effect

Some scholars have shown that chelidonine can inhibit tumor growth, protect immune organs and suppress tumor angiogenesis in Lewis lung cancer transplantation tumor mice, and may exert therapeutic effects by targeting NF-κB/HIF-1α signaling pathway, and down regulating NF-κB and HIF-1α protein expression levels. Furthermore, some researchers have confirmed that chelidonine can effectively reverse the resistance of MCF-7/ADR cells to ADR. The mechanism might be related to the downregulation effect of chelidonine on P-gp expression by inhibiting PI3K/AKT and MAPK pathway. There are also studies point out that chelidonine had a significant inhibitory effect on the proliferation of KB cell lines in a time-dose-dependent manner, and which can inhibit the invasion of KB cells, and the inhibition of invasion increased with concentration. Therefore, anti-tumor effects of chelidonine mainly include inhibiting tumor growth and promoting tumor cell apoptosis.

2.4 Inhibition of hepatic fibrosis

Li Xiaoming has confirmed that chelidonine could ameliorate liver fibrosis induced by carbon tetrachloride in rats. The mechanism may be related to activation of PI3K/Akt/mTOR signaling pathway and inhibition of autophagy.

2.5 Other effects

Experiments have shown that chelidonine can improve the growth performance, immune function and antioxidant capacity of meat rabbits. It is worth mentioning that some studies have found that chelidonine can also induce plant disease resistance activity.

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THERAPEUTIC MECHANISM UNDERLYING TOTAL ALKALOID OF CHELIDONIUM MAJUS L. FOR THE TREATMENT OF ALLERGIC ASTHMA BASED ON METABOLOMICS

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Abstract. Alkaloids from Chelidonium majus L. are mainly benzylisoquinoline alkaloid with remarkable clinical effect in the treatment of anti-inflammatory, antitumor, and immunosuppressive effects involving multiple biological mechanisms [1]. Asthma is inflammatory diseases that is difficult to treat. Total alkaloids was prepared from an ethanolic extract and HP20 enrichment of dry plants Chelidonium majus L.. Rats (n = 8) with confirmed asthma were treated with total alkaloids. The metabolomic pattern was compared before and after the total alkaloids (TA) treatment. The performed analysis showed significant changes in the concentrations of metabolites that are involved in alpha linolenic acid and linoleic acid metabolism, glutathione etabolism, and others. The results of the study found that TA treatment prevents the recurrence of asthma in rats.

Keywords: Total alkaloids; Metabolites; UPLC/Q-TOF-MS/MS

Chelidonium majus L. (Papaveraceae) has a long history of the treatment of human diseases as a valuable source of isoquinoline alkaloids, which possess a variety of pharmacological properties including anti-inflammation and bronchodilator effects [1]. Asthma is a chronic inflammatory disorder of the airways. with diverse inflammatory symptoms, pathology, and responses to treatment. Emerging evidences revealed that Chelidonium majus L. could improve the inflammatory response induced asthma [2].

Metabolomics, a fast-growing discipline, helps to detect and quantify of hundreds/thousands of perturbed metabolites in tissues or biofluids within a biological system. Metabolome analysis has revealed high-abundance molecules during different conditions such as diet, environmental stress, microbiota, and disease and treatment states. Thus, it is crucial to establish comprehensive metabolomic approaches to elucidate these alterations in rat asthma.

Objective

We investigated the metabolomic profile changes in asthma upon treatment of the disease with the studied total alkaloid of Chelidonium majus L.

Materials and methods

Dried Chelidonium majus L. (100 g) were extracted with distilled water (1 L× 3, 2 heach) under reflux, and then total alkaloid was acquired HP20.

Male Wistar rats (200±20 g) were obtained from Liaoning Changsheng Biotechnology Co., Ltd.. Twenty-four rats were randomly divided into six groups with eight rats per group. The animal model was established by sensitizing and challenging with OVA for 21 days. Experimental groups received low TA at the dosage of 0.5 g/kg via intragastrically (i.g.) daily.

After UPLC-Q-TOF/MS analysis, the data was imported into the Progenesis QI software for peak detection, alignment, deconvolution and normalize. Then, SIMCA was used to for the principal component analysis (PCA). The list of ions that contribute to the grouping was obtained from the loadings S-plot and variable importance plot (VIP). MetaboAnalyst 5.0 was used annotate the functions of the metabolites and metabolic pathways.

Results and discussion

As the result shows in Figure 1A and 1B, a clear difference was observed between the control group and the OVA group, suggesting that the metabolism state of the whole body was changed induced by the OVA. After administering TA, the metabolism state was away from the place of the OVA model state, and closer likely to the control group metabolism states. Meanwhile, the potential biomarkers were obtained with the predetermined rules (VIP>1; P<0.05) (Figure 1C and 1D). In this study, a total of common 15 specific metabolic biomarkers. It was found that 8 perturbed metabolism pathways were involved (Figure 1E), mainly including arachidonic Acid Metabolism, Glutathione Metabolism, and others. Therefore, a metabolomics strategy was successfully performed and interpreted the mechanism of the TA on asthma.

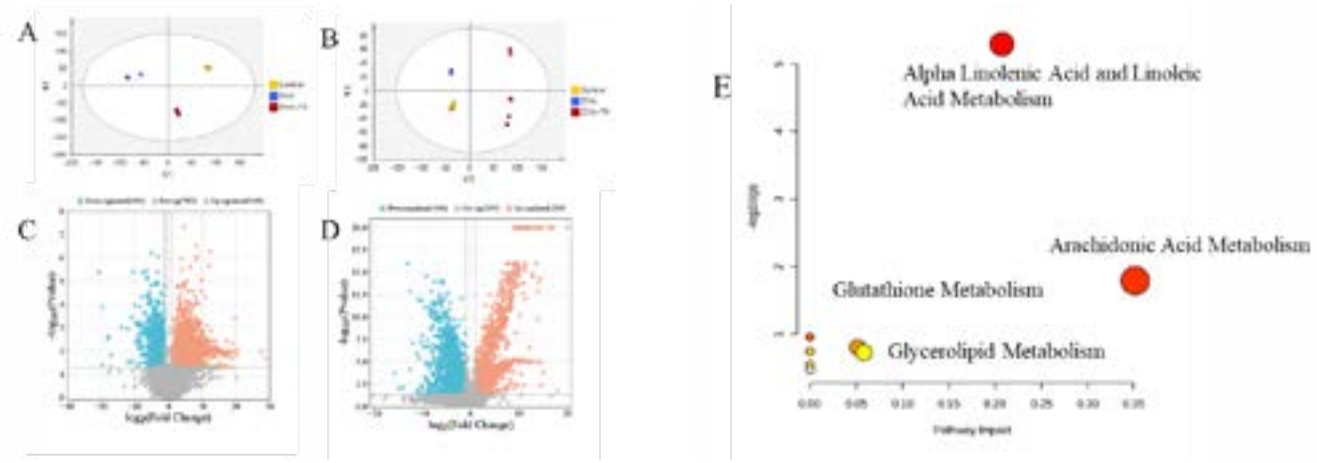

Figure 1. Metabolomics analysis of TA in the treatment of asthma in rats. (A) PCA score plots in positive; (B) PCA score plots in negative; (3) VIP in positive; (D) VIP in negative; (E) Analysis of metabolic pathways of the significantly changed metabolites;

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FLAT SPINES JINJIE POINT METHOD TO TREAT WRIST DORSAL GANGLION CLINICAL OBSERVATION

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Abstract. It's to observe flat spines JinJie point method effect for the treatment of tendon sheath cyst.Adopts the principle of randomized divide the 85 cases of clinic patients in treatment group (45 cases) and control group (40 cases).Treatment group at JinJie therapy, find out the location of the tendon sheath cyst by touching the big small and related areas of nodes, and then uses the 0.40 mm x 50 mm needle acupuncture method of thorns prick nodes and «chicken feet» cyst surrounding structure, treatment 3 times per week.The control group with a 0.40 mm x 50 mm acupuncture needle stab to surround around the cyst and warm acupuncture, once a day.Two treatment methods have good treatment effect, but flat JinJie point method to treat perlocutionary faster, higher cure rate.

Keywords: acupuncture;Lateral spines;JinJie point;Tendon sheath cyst

JinJie point therapy is under the theme of fascia effect put forward since the fascia in tension, stress state changes after focal node, at the same time affect the corresponding regional blood supply and metabolism of body fluid and a series of symptoms.

Objective

With the method of thorn needle node remedy is fascia tension, stress, to achieve the goal of treatment method.

Materials and methods

85 cases of all is the first hospital affiliated to heilongjiang university of Chinese medicine clinic patients, randomly divided into the treatment group 45 cases, control group 40 cases.The treatment group: First do palpation in cyst location, size and the associated muscle ligament;Touch areas fascia clear node number, position.Using 75% of medical alcohol of nodal point and cyst surrounding for regular disinfection, take 0.40 mm x 50 mm disposable acupuncture needle as flat spines, prick nodal points and 1 cm cyst at both ends up along one edge of the cyst and pouch sample for chicken feet.Every 2 ~ 3 d for 1 time, in the eye of a needle within 24 h after treatment to avoid to touch water to prevent infection.5 times for a course of treatment. The control group: After routine disinfection choose 0.40 mm x 50 mm acupuncture needles along the sac in four weeks cyst wall 45 ° Angle of inclined 0.5 ~ 1 inch, the cyst is directly on a needle, a depth of 0.2 ~ 1.5 inch, depending on the size of the cyst, depth to cyst most base, with flat or level of skill, retaining needle 30 min, meantime needle line 3 ~ 5 times.Then use moxa roll around the cyst and line in the middle of the thorn needle acupuncture, moxibustion 30 min every time.Day 1, 10 times for a period of treatment.Two groups of patients have been found in the treatment of symptoms and signs disappeared, the treatment will be terminated and record for frequency, maximum treatment after a period of treatment efficacy evaluation.

Results and discussion

Treatment group total effective rate 93.3% in the control group total effectiveness 90.0%.Two groups of the cure rate and total effective rate comparison difference was statistically significant ($P < 0.05$), indicating that the treatment group cure rate and total effective rate is better than the control group.Wrist dorsal ganglion is common surgical disease, clinical medicine more mining with surgical excision [1], closed treatment [2]or after pumping liquid injection of anhydrous ethanol [3].The doctor of traditional Chinese medicine treatment of the original is the acupuncture and moxibustion, massage treatment of tendon sheath cyst, application is more filiform needle stab method [4], Yang thorn method [5] , ginger moxibustion as well as the needle knife and so on.Have good curative effect, clinical acupuncture needle destruction by surrounding it with local cyst tissue, relaxes the muscles and stimulate blood circulation promoting blood circulation to remove blood stasis, anti-inflammatory analgesic effect;Treatment of tendon sheath cyst emphasis is how to fully destroy the wall, make the thecal sac is sealed in a short period of time is difficult to completely closed, keep circulation chang, prevent content accumulation again, but it ignores the effect of the surrounding fascia and role.Through JinJie point method of thorn treatment, the first solution is zhang, stress conditions of the surrounding fascia, improve the surrounding fluid circulation metabolism make fluid absorption fade nature;Second for capsule wall structural damage and change, don't stress out pouch liquid in the process of treatment.The whole process of treatment time about 1 ~ 2 min to complete;Bureau of acupuncture depth is limited to subcutaneous fascia layer, minor pain, patient compliance.To show the method of thorn tendons node advantages for the treatment of tendon sheath cyst.

Flat spines JinJie point method to treat tendon

sheath cyst method is simple and safe, exact curative effect.

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RESEARCH PROGRESS IN THE TREATMENT OF KNEE OSTEOARTHRITIS WITH ACUPOTOMY

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Abstract. Knee arthrosis is a common and frequently encountered disease in orthopaedics and traumatology. At present, conservative methods are commonly used for treatment, and there are various treatment methods of traditional Chinese and western medicine. Acupotomy, as one of the conservative treatment methods with proven efficacy, has played an important role in the treatment of knee osteoarthritis in recent years.

Keywords: Knee; Osteoarthritis; Acupotomy; A summary

Knee osteoarthritis has become the most common disease in orthopaedics and traumatology because of the huge load and activity of knee joint. Acupotomy plays an important role in the treatment of knee osteoarthritis because it can improve patients' pain symptoms and improve patients' quality of life.

Basic research

At present, the basic research direction of acupotomy is mainly focused on the mechanics of acupotomy on knee joint.Restoration of balance and expression of serum inflammatory factors or cartilage apoptosis in egg white.

By observing the rabbit model of knee osteoarthritis, Fei et al. studied the effect of acupotomolysis on the mechanical changes of ligaments in the skeleton of the model rabbits, the expression of IL-4 in cartilage and the repair of articular cartilage injury, and further explored the mechanical signal transduction mechanism of the intervention of acupotomolysis based on IL-4 on the repair of cartilage injury in KOA model rabbits. Through the experimental analysis, it was found that the acupotomy could achieve the adhesion and release of the ligaments of the knee joint and effectively adjust the joint toughness. The biomechanical properties of the belt and the mechanical balance at TJ of the knee joint can be restored, so that the improvement of the peripheral mechanical balance can affect the expression of IL-4 in cartilage, and at the same time play a role in repairing and improving the injury of articular cartilage. Therefore, studies have confirmed that acupotomolysis plays a role in cartilage protection and treatment by adjusting and changing the mechanical characteristics of the knee ligament. IL-4 mediated chondrocyte mechanical signal transduction pathway is a key one, which may be one of the mechanical signal transduction mechanisms in the treatment of knee osteoarthritis by acupotomy.

Experimental and clinical studies have shown that acupotomotherapy can relieve adhesions, paralysis marks, and contracture caused by chronic inflammatory injury of soft tissue around the knee joint in patients or experimental models of rabbits. The ligaments with abnormally high tension around the knee joint are then released. This broke the vicious cycle of the pathogenesis of the disease, and the poor anastomosis relationship of the joint surface could be restored to a certain extent. The biomechanical restoration and re-balancing of the joint could also reduce the content of inflammatory factors in the serum of the study subjects and the content of enzyme proteins in the articular cartilage that destroyed or accelerated the degradation of cartilage matrix, thus alleviating the process of

apoptosis and degradation of articular cartilage. In addition, it protects the articular cartilage and improves the symptoms of the study subjects.

Clinical research

In clinical practice, acupotomy is often combined with joint cavity injection to treat knee osteoarthritis, and the curative effect is ideal. Cheng Wei and Qin Zhen et al. respectively observed the clinical efficacy of acupotomy lysis and sodium hyaluronate injection in the treatment of KOA. Visual analogue scale (VAS) and activity of daily living score (ADL) of the two groups were compared and evaluated before and after treatment. It was found that acupotomy had better effect on knee osteoarthritis, and could relieve pain and improve activity of daily living.

Needle-knife therapy, as a treatment method in traditional medicine, is often combined with traditional Chinese medicine fumigation by clinicians. Wang Meng et al. combined acupotomy therapy with traditional Chinese medicine fumigation to treat qi stagnation blood scar type knee osteoarthritis. VAS score and ISOA score were used as the main observation indicators, and the results showed that there was a difference in efficacy between the treatment group and the control group. Acupuncture combined with traditional Chinese medicine fumigation therapy was superior to acupuncture combined with traditional Chinese medicine fumigation therapy in reducing knee pain and improving knee joint mobility, especially for middle and early stage patients.

Acupotomy is effective in clinical use, can improve the pain symptoms of patients, improve the quality of life of patients, and get the trust of patients and doctors.

Sum up

Acupotomology has made great progress in the past 30 years, the clinical effect has been affirmed by doctors and patients, and the basic research of acupotomology is also being further deepened. But so far, the mechanism of acupotomology treatment of KOA is still not clear. It is believed that with the development and research of acupotomology continue to deepen, both clinical and basic research of acupotomology will make further breakthroughs.

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TO INVESTIGATE THE EFFECT OF TAI CHI POST EXERCISE ON FALL RISK IN CONVALESCENT STROKE PATIENTS BASED ON SURFACE ELECTROMYOGRAPHY

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Abstract. Stroke is one of the existing diseases with the highest mortality and disability rates in China, with a high recurrence rate, and falls during the recovery period of patients is an important factor leading to the recurrence of stroke, so assessing and improving the risk of falls in patients during the recovery period has become an important research direction. As a traditional Chinese exercise technique, Tai Chi Pile Work not only improves the strength, endurance and good coordination of limb muscles, thus indirectly improving the balance function of hemiplegic patients, but also strengthens the ability of ankle regulation mechanism, hip regulation mechanism and stride movement mechanism to promote the recovery of balance dysfunction. Therefore, this study used rehabilitation combined with Taiji piling to investigate the effects on fall risk in patients recovering from stroke.

Keywords: Tai chi pile gong; Stroke; Surface electromyography; Fall risk

Walking dysfunction after stroke is the most common dysfunction in stroke patients, and walking dysfunction increases the risk of falls in stroke patients, and fall prevention can improve the quality of life of patients . Effective assessment of fall risk factors and timely intervention is an important measure to prevent falls. Tai Chi pile exercise can enter a relatively static state of consciousness through the use of thinking and consciousness, which can realize the balance of Yin and Yang, dredge the meridians, harmonize Qi and blood, and nourish the vitality, so as to achieve the purpose of

cultivating the essence and strengthening the yuan. Moreover, it can improve the muscle strength, endurance and body adjustment ability of the muscles of the lower limbs of the patients, so as to provide effective help for the walking ability and balance function of the patients.

Objective

In this study, surface electromyography was used to study the effect of Tai chi pile exercise on the fall risk of stroke patients, so as to provide a more effective method for clinical rehabilitation treatment of stroke patients.

Materials and methods

A total of 72 stroke patients were randomly divided into treatment group(n=36) and control group(n=36). There was no significant difference between the two groups in terms of gender, age, duration of disease, nature of stroke, and side of hemiplegia (P>0.05). Patients in both groups were given corresponding routine medical treatment and daily routine rehabilitation therapy training. On the basis of routine rehabilitation treatment, the treatment group received tai chi pile exercise intervention for 16 weeks, 30min/ time, once in the morning and once in the afternoon every day. The observation indexes of the patients before and after 16 weeks of the experiment were evaluated single-blind by rehabilitation doctors. Main outcome measures: Surface electromyograms (iEMG) and median frequency (MF) of gluteus maximus, gluteus medius, rectus femoris, biceps femoris and medial gastrocnemius; Secondary outcome measures: Timed rise-walk test (TUGT), Berg Balance Scale (BBS), modified Barthel index (MBI).

Results and discussion

1. Comparison of surface electromyography iEMG ,MF values: Before treatment,there was no significant difference in iEMG,MF values between the two groups (P > 0.05). Compared with before treatment, after 16 weeks of treatment, there was a statistically significant difference in the iEMG,MF values of the two groups (P < 0.05). After 16 weeks of treatment, compared with the control group, there was a statistically significant difference in the surface EMG iEMG value of the treatment group (P < 0.05). The results indicated that Tai chi pile-work could improve the muscle contraction ability of the affected side of stroke patients.EMG MF value in the treatment group (P < 0.05). The results indicated that Tai Chi pile-work could improve the anti-fatigue ability of the affected side muscles of stroke patients.

2. Comparison of TUGT, BBS and MBI scores: Before treatment, there was no statistical significance in TUGT, BBS and MBI scores between the two groups (P > 0.05). Compared with before treatment, after 16 weeks of treatment, there were statistically significant differences in TUGT, BBS and MBI scores between the two groups (P < 0.05). After 16 weeks of treatment, compared with the control group, TUGT, BBS and MBI scores of patients in the treatment group were statistically significant (P < 0.05). The results indicated that Tai chi pilings could improve the ability of fall prevention, balance and activities of daily living in stroke patients.

Conclusion

Tai Chi pile exercise can promote the improvement of fall prevention ability after stroke, and can further improve the balance ability and daily living ability of patients, which has clinical application value.

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STUDY ON THE ANTIOXIDANT ACTIVITY OF DAHUANG ZHECHONG PILL IN DIFFERENT DOSAGE FORMS

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Abstract. Dahuang Zhechong Pill (DZP) is made up of 12 kinds of Chinese medicines and contain 4 kinds of animal medicines, so the ingredients are more complex and the uses are also more extensive. In the study, the antioxidant activity of different dosage forms of DZP was investigated by ultraviolet spectrophotometry, which provides a new research idea for the application of DZP in the delay of aging. In this study, the in vitro antioxidant properties of DZP were illustrated by determining the scavenging rate of free radicals. Different dosage forms of DZP were used for side-by-side comparison. The scavenging rate of DPPH free radicals was determined for each of the four dosage forms of DZP, and the fitted curves were plotted to find out the concentration of the drug required to scavenge 50% of the free radicals, i.e., the IC50 value. By comparing the IC50 values, we found that different dosage forms of DZP had scavenging effects on DPPH free radicals and had the best scavenging effect. It was found that all the four dosage forms of DZP had antioxidant properties.

Keywords: Dahuang Zhechong Pill; Free radicals; Scavenging rate; Antioxidant

Dahuang Zhechong Pill, which is also included in the Chinese Pharmacopoeia 2020 edition, was written by Han dynasty physician Zhang Zhongjing. In recent years, the development and research on the new use of DZP are also being actively carried out. Currently, there are many studies on the use of DZP in liver disease, kidney disease, cancer, etc. Progress has also been made in the study of the correlation between the components of DZP and its pharmacological effects; these diseases may be related to oxidative damage in the organism. Oxidative damage in the body is one of the main causes of aging, and also leads to a variety of diseases, such as cardiovascular disease, inflammation, cancer, and so on. Antioxidants can directly or indirectly eliminate the substances produced by oxidative damage, to a certain extent, to delay or prevent oxidative damage to bring about diseases; enhance the body's antioxidant capacity to a certain extent can play a role in slowing down the role of aging, and at the same time, improve the human body to some of the resistance of the disease.

Objective

In order to study the in vitro antioxidant activity of different dosage forms of DZP, and to provide a certain basis for the future development of DZP in antioxidant, anti-aging and other related drugs.

Materials and Methods

The DPPH standard solution was obtained by taking proper amount of DPPH standard and adding a certain amount of anhydrous ethanol, which was dissolved by ultrasonic for 30 min. DZP (Honey Pill, Honey Pill, water pill and film-coated tablet) in four dosage forms was mortar and pestle into a powder, get the filtrate. The extract was diluted to 8 concentrations with absolute ethanol. Anhydrous ethanol was chosen as the solvent blank, 1mL of DZP anhydrous ethanol extract was mixed with 1mL of DPPH standard solution and shaken well, and then reacted for 30 min under the condition of avoiding light, the absorbance was read as A1; 1mL of anhydrous ethanol was mixed with 1mL of DPPH standard solution and reacted for 30 min, the absorbance was read as A0; 1mL of DZP anhydrous ethanol extract was mixed with 1mL of anhydrous ethanol, and then reacted for 30 min, the absorbance was read as A2.The free radical scavenging rate of DZP of different dosage forms was determined by the above method after diluting them into different concentrations.

Results and Discussion

It can be seen that all four dosage forms of DZP has scavenging effects on free radicals. The IC50 of the concentrations required to scavenge half of the DPPH free radicals for the four dosage forms were as follows: honey pill > water pill > water honey pill > film-coated tablet. By comparing the IC50, it can be concluded that the efficiency of DPPH radical scavenging effect of different dosage forms of DZP is as follows: honey pill > water pill > water honey pill > film-coated tablet.

Different dosage forms of DZP showed some scavenging effects on DPPH free radicals, and the scavenging rate was positively correlated with the concentration of the drug solution. The antioxidant effects were found in the big honey pill, water honey pill, water pill and film-coated tablet of DZP, among which the big honey pill had the best scavenging effect on DPPH.

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SERUM PHARMACOCHEMISTRY OF TCM, AN INNOVATIVE STRATEGY FOR DISCOVERY OF THE MATERIAL BASIS OF DRUG EFFICACY

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Abstract. Serum pharmacochemistry of TCM is a method to analyze the migration components in blood after oral administration of drugs. In recent years, serum pharmaceutical chemistry of Chinese materia medica has been recognized by a large number of scholars and widely used. In this paper, the related literatures at home and abroad in recent years are sorted out, the specific application and method expansion of serum pharmaceutical chemistry of Chinese materia medica are reviewed in many aspects. On this basis, the possible problems of serum pharmaceutical chemistry of Chinese materia medica are analyzed. And its application prospect is explored, so as to provide reference for further application of serum pharmaceutical chemistry of Chinese materia medica in the research field.

Keywords: Efficacy material basis; Serum pharmacochemistry; Chinmedomics; TCM

Introduction

Traditional Chinese medicine is a unique medical system in China, but the composition of traditional Chinese medicine is complicated, and it is difficult to clarify its effective ingredients, which hinders the integration of traditional Chinese medicine with international standards. Chinese medicine serum pharmacochemistry is a method to analyze the chemical substances in the serum after oral administration of Chinese medicine, and then further determine the pharmacodynamic material basis of Chinese medicine or prescription and its internal process [1]. Using the method of serum pharmacochemistry to study the chemical components of traditional Chinese medicine can explain the material basis of the function of traditional Chinese medicine.

Application of serum pharmacochemistry

The material basis of TCM efficacy refers to the sum of all the pharmacodynamic components produced after the action of certain disease. Elucidating the material basis of TCM efficacy is very important to explain how TCM works in vivo and its molecular mechanism. Serum chemistry adopts the research idea of «complex chemical components of traditional Chinese medicine - migratory components in blood - direct acting substances in vivo-pharmacodynamic substances» to clarify the interaction between the body and drugs, and then reveal the substance basis of drug efficacy [2].

The composition of Chinese medicine is complex, and the quality of Chinese medicine is often evaluated by the content of one or several index components, which cannot fully reflect the quality of Chinese medicine. Based on this, the concept of Chinese medicine quality marker was proposed . Serum pharmacochemical method was used to find the chemical components in blood, determine the quality markers of Chinese medicine, further control the quality of Chinese medicine, improve the quality standard of Chinese medicine, and accelerate the modernization of Chinese medicine.

Extension of methods of serum pharmacochemistry

The combination of serum pharmacochemistry and network pharmacology strategies can screen out the active drug ingredients directly acting in the body and directly reflect the pharmacological mechanism, which can effectively solve the shortcomings of the deviation in the prediction results of network pharmacology.

Molecular docking is a technical method that uses computer technology to simulate the binding of ligands (proteins, small molecules, DNA/RNA) and receptor protein biomacromolecules through the

principle of mutual recognition between molecules, and predicts their binding mode and affinity based on calculated parameters.

Chinmedomics is a technology that integrates metabolomics and serum pharmacochemistry. It evaluates the effect of prescriptions on the premise of the corresponding prescription and syndrome. Serum pharmacochemistry technology is used to correlate biomarkers of endogenous syndromes with exogenous prescription components in vivo, and reveal the material basis and mechanism of prescription efficacy .

Results and discussion

In conclusion, use of the Serum pharmacochemistry of TCM to study the chemical components of Chinese medicine and Chinese medicine prescriptions in vivo and in vitro, analysis and identification of transitional components in blood is conducive to the study of drug efficacy material basis. However, there are still some shortcomings, the reproducibility of the experiment is poor due to the influence of individual differences and drug metabolism rate. Secondly, the endogenous substances in serum are complex, and after the dynamic changes of absorption, metabolism and excretion of drugs after entering the body, the content of active ingredients in blood is less than that of endogenous substances, which is not conducive to analysis.

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MODERN RESEARCH PROGRESS OF TRADITIONAL MEDICINE IN RUSSIA AND CHINA

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Abstract. This article introduces the modern research progress of Russian traditional medicine and Chinese medicine. With the progress of science and technology and cultural exchanges, Russian traditional medicine has learned from the theory and practice of Chinese medicine, and has widely applied acupuncture therapy in clinical practice. Scientific research has also explored the similarities and differences between the two traditional medicine, providing new ideas and directions for the development of Russian and traditional Chinese medicine.

Keywords: Traditional medicine, Modern clinic,Russian medicine,TCM

Russia has a long history of traditional medicine, dating back to the ancient Slavs and Vikings in BC. At that time, people summarized many experiences and methods of treating diseases and maintaining health by observing and learning the behavior of animals, the use of herbs and the phenomenon of natural fruits. With the change of times and the migration of different ethnic groups, these experiences and methods gradually merged and developed into the unique traditional medical culture of Russia.

Russian traditional medicine has many similarities to Chinese medicine. For example, Russian traditional medicine also pays attention to regulating the internal qi and blood, Yin and Yang balance and other aspects. At the same time, Russian folk medicine also has some unique application methods and treatments. For example, the use of beetroot juice, poppy seeds to relieve pain, the use of alcohol or honey treated snake marks to treat toothache and so on.

1 Methods and practices of unique Russian traditional medicine

1.1 Samoyan therapy: This is a traditional Siberian ethnomedical practice[1] that uses natural materials and herbs to treat diseases. Believing in a close connection between the body and the energies of nature, massage, herbal remedies and hydrotherapy to restore balance to the body.

1.2 Slush Bath: This is an ancient Russian traditional therapy that uses frozen mud to cover the whole body, releasing toxins from the body through the warm mud, promoting blood circulation and lymphatic drainage. The treatment is thought to be beneficial for arthritis, muscle pain and skin problems.

1.3 Russian Baths: Russian baths, also known as saunas, are an important element of Russian culture[2]. In saunas, people sweat violently under the heat and humidity, and use branches (such as oak or birch trees) to gently pat the body to stimulate blood circulation and the lymphatic system. People then jump into cold water to encourage blood vessels to constrict and dilate, boosting immunity and cardiovascular health.

These traditional medical methods vary among different regions and ethnic groups in Russia, but all reflect the importance Russians place on natural remedies and the energy balance of the body. Nowadays, however, modern medicine is still mainstream in Russia, while traditional medical methods are applied in some specific situations.

2. Unique methods and practices of traditional Chinese medicine

Traditional Chinese medicine also has some innovative diagnosis and treatment methods in the field of modern medicine, the following are some examples:

2.1 TCM injections: Traditional Chinese medicine has always been an important part of traditional Chinese medicine. In recent years, the research and development and application of TCM injections have been widely concerned. These TCM injections are prepared by extracting the active ingredients from Chinese herbs and conducting standardized processing. TCM injections have been widely used in the treatment of cancer [3], cardiovascular and cerebrovascular diseases [4] and immune system diseases [5].

2.2 Traditional Chinese acupuncture and moxibustion: As one of the important therapies in traditional Chinese medicine, acupuncture and moxibustion has also made some innovations through modern scientific research and development. For example, electroacupuncture [6] is the application of electric currents to acupuncture points to enhance the therapeutic effect. In addition, laser acupuncture [7] uses laser technology to replace traditional acupuncture needles for stimulation in order to achieve the same therapeutic effect.

3. Summary and prospect

These innovative diagnosis and treatment methods further develop Russian medicine and traditional Chinese medicine, and combine it with modern medicine to provide patients with more choices and treatment opportunities. They have been widely used and researched in China and internationally, and are expected to bring more space for innovation and progress in the field of modern medicine.

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EXPLORING THE MECHANISM OF GALANGAL IN TREATING NEPHRITIS BASED ON NETWORK PHARMACOLOGY AND MOLECULAR DOCKING

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Abstract. Through databases such as TCMSP, OMIM and STRING, the active chemical components, action targets and disease targets of Alpinia officinarum were obtained and screened, and protein interaction network was constructed, and KEGG pathway analysis and GO enrichment analysis were carried out. 35 active chemical components were screened from Alpinia officinarum, and 606 drug target genes and 1166 disease target genes were obtained. Key targets significantly affect cell migration, epithelial cell proliferation, VEGF signaling pathway and MAPK signaling pathway. Molecular docking shows that the binding conformation of core components and core targets is stable.

Keywords: Galangal, Kaempferol, Nephritis, Network pharmacology; Molecular docking

Glomerulonephritis, referred to as nephritis for short, has become an important disease that threatens human health after tumor, cardiovascular and cerebrovascular diseases and diabetes, so it is very important to find effective therapeutic drugs and clarify their mechanisms. Galangal is the dried rhizome of Galangal Hance, Galangal has obvious efficacy in anti-inflammatory, analgesic, antibacterial and antioxidant aspects.As a new technology, network pharmacology and molecular docking have been widely used to predict the mechanism of a Chinese medicine in treating related diseases.

Objective

To explore the possible mechanism of Galangal in treating nephritis through network pharmacology and molecular docking technology.

Materials and methods

Using databases such as TCMSP, OMIM, DrugBank, Genecards, TTD, DisGeNET, Uniprot, STRING, Metascape, Pubchem, and Cytoscape3.7.1 software, AMDOCK visualization software are used to screen active chemical components and target proteins of Alpinia officinarum, screen nephritis targets and obtain drug-disease intersection targets, build protein-protein interaction network, build Alpinia officinarum-active chemical components-nephritis-intersection target network, KEGG pathway analysis and GO enrichment analysis, and dock core active chemical components-core target molecules.

Results and discussion

A total of 35 active chemical components were screened from Alpinia officinarum and 606 non-repetitive target genes were obtained. 1166 non-repetitive disease targets were obtained, and 114 intersecting targets were obtained. Five possible core targets were screened out according to Dgree value through PPI network. Eight possible core components were screened out according to Dgree value through PPI network. The analysis of KEGG pathway and GO enrichment showed that the key targets significantly affected the vascular development, renal tubular formation, MAPK signaling pathway and VEGF signaling pathway. The results of molecular docking showed that the binding conformation of kaempferol, the core component of Alpinia officinarum in the treatment of nephritis, and STAT3, the core target, was stable.

Inflammatory factors can activate STAT3, and the transcription regulation of STAT3 will also affect the expression of inflammatory factors. Kaempferol can alleviate adriamycin-induced renal tubular injury by inhibiting the activation of MAPK signaling pathway mediated by ROS/ASK1. VEGF can not only increase vascular permeability, but also promote the proliferation and migration of vascular endothelial cells, and inhibit acute kidney injury by reducing inflammation and oxidative stress.

In this paper, it is predicted by network pharmacology and molecular docking that Alpinia officinarum may regulate VEGF and other signal pathways to treat nephritis through the combination of kaempferol and STAT3, which provides an idea for further expounding the mechanism of Alpinia officinarum in treating nephritis in the future.

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APPLICATION OF THE INNOVATION OF ACUPOINT EMBEDDING PUNCTURE TECHNOLOGY IN GASTROESOPHAGEAL REFLUX DISEASE

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Abstract. With the change of living habits, gastroesophageal reflux disease is increasing, the disease has a long course and is easy to repeat. Western medicine is mostly maintained with acid-suppressing and kinetic-promoting drugs, and the long-term effect is not good, and the adverse effect is obvious after long-term administration, while the external therapy of traditional Chinese medicine often achieves better results.

Keywords: acupoint embedding, gastroesophageal reflux disease

Gastroesophageal reflux disease refers to the gastrointestinal contents flow back into the esophagus, causing acid reflux, heartburn, cough and other symptoms of the disease, traditional Chinese medicine often «acid vomiting, noisy, plus-core gas» as the name of the disease. This disease is a common clinical disorder of digestive tract, and its risk factors are complicated. In recent years, acupuncture and acupoint embedding have become the common external treatment for gastroesophageal reflux disease due to their advantages of high safety, significant curative effect and small economic burden.

Objective

To explore the application of innovative acupoint embedding technology in gastroesophageal reflux disease and explore the important role of traditional medical technology in digestive system diseases.

Materials and methods

Acupoint threading is a long-term acupuncture, which is established and developed on the basis of traditional needles and acupuncture methods, and is the development and extension of acupuncture technology [1]. The first innovation: traditional acupoint embedding methods all require anesthesia before embedding, and even incision and suture have a certain degree of trauma. The popularization of «disposable burying needle» has for the first time made clinical use of relatively unified burying tools and reduced trauma; The second innovation: there are many kinds of items buried in acupuncture points, and the effects are different. The development of surgical suture materials with the progress of modern science and technology has provided a carrier for embedding therapy to learn from. The third innovation: operation technology, is one of the three core elements of the buried line. At the same time of acupoint burying, the idea of needle-knife loosening was introduced, and several «needle-cutting pendulum» movements were consciously added, but the acupoint burying therapy jumped out of the shackles of pure «long-term needle feeling» and entered a new field. The operation process of acupuncture point embedding for the treatment of gastroesophageal reflux disease: select points: Tianshu, Zhongwan, Yanglingquan, Sanyinjiao, Danshu, Ganshu, etc. [2]. Operation: Use No. 9 disposable burying needle to insert 2-0(2 cm) absorbable collagen thread. First, the marker marks the points taken. Take iodophor to disinfect the selected points, then take a buried needle into a pen shape, quickly break the skin of the points and vertically Pierce 20 mm. And slowly downward to find the needle feeling, a small amplitude of lifting and twisting, ask the patient has the feeling of numbness and distension for qi, after the gas slowly lift the buried needle, at the same time draw out the buried needle and press the needle hole with a cotton swab to prevent bleeding, a moment later with waterproof tape fixed.

Results and discussion

Studies have shown that the common positive reaction points of digestive system diseases, including gastroesophageal reflux disease, often appear on the spine of patients with T7 ~ T12, and the treatment of acupuncture and other therapies on these positive reaction points has achieved significant efficacy[3]. The treatment of gastroesophageal reflux disease by stimulating the corresponding acupoints of the governor vein is superior to conventional drug therapy in terms of effective rate, cure rate and symptom score. The theory of acupoint embedding comes from traditional Chinese medicine, and the development of technology and thread body benefits from modern science and technology. Inheriting the essence and keeping the integrity and innovation are always the magic weapon of embedding medicine and even all medical progress. Learning from the strengths of other disciplines or developing in coordination with other disciplines is also a wise way, and it is always a force that needs to be relied on.

Therefore, the role of acupoint embedding technique in the treatment of gastroesophageal reflux should be further developed and explored.

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EFFECTS OF TONGXIAOYANGHE GRANULES WITH CYCLOPHOSPHAMIDE ON GROWTH OF TRANSPLANTED TUMOR IN 4T1 MICE BREAST CANCER

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Abstract. The antitumor effects of Tongxiaoyanghe granules combined with Cyclophosphamide on 4T1 mice breast cancer was studied.By constructing mouse breast cancer transplantation tumor model, the weight changes and tumor growth of each group were observed, tumor inhibition rate and spleen index of each group were calculated, and tumor histopathology changes, general hematology and immunocytology changes of each group were detected. The results showed that Tongxiaoyanghe Granules could inhibit the growth of 4T1 mice breast cancer, reduce the atypia of tumor tissues and cells, and enhance the immune function of breast cancer mice while enhancing the efficacy and reducing the toxicity of chemotherapy drugs.

Keywords: Tongxiaoyanghe granules,breast cancer,Cyclophosphamide,Anti-tumor effect,Immune functio

According to the global cancer statistics in 2020,the incidence of breast cancer is the highest in the world, and the mortality rate of female malignant tumors is also the highest1.From 2000 to 2020,the incidence and mortality of breast cancer in China have changed at a growth rate of 4.1% and 1.5%,respectively,and have shown an overall trend of continuous increase,which seriously threatens the physical and mental health of Chinese women2. Although the treatment of breast cancer includes surgical treatment, endocrine therapy,targeted ther apy,chemotherapy,radiotherapy and other methods, breast cancer still poses a heavy burden to the family and society3.Therefore,it is of great significance to develop an anti-tumor proprietary Chinese medicine that can inhibit the growth process of breast tumor,reduce recurrence and metastasis,alleviate the toxic side effects of chemotherapy,and improve the quality of life of patients.

Objective

To study the effects of Tongxiaoyanghe Granules combined with Cyclophosphamide on the tumor growth of 4T1 mice breast cancer.

Materials and methods

The 4T1 breast cancer bearing model was constructed in BALB/c female mice. They were randomly divided into negative control group, model group, Tongxiaoyanghe granules group, Cyclophosphamide group and combination group. Model group was given distilled water (0.2ml•d-1) orally. Cyclophosphamide group was intraperitoneally injected with Cyclophosphamide (100 mg·kg-1·d^{-1}) 0.1ml once a week, granules group

was given Tongxiaoyanghe granules (5.2g•kg-1•d^{-1}) 0.2ml orally, Combined group was intraperitoneally injected with Cyclophosphamide(100 mg•kg-1·d^{-1}) 0.1ml once a week and Tongxiaoyanghe granules (5.2g•kg-1·d^{-1}) 0.2ml orally, Negative control group was intraperitoneally injected with the same amount of normal saline and the equal volume of distilled water orally per day, 1 time•d-1,for 21 days.Tumor 1t/3d was measured,time tumor growth curve was plotted,mice were killed 12 hours after the final administration,tumor body was stripped and weighed,tumor inhibition rate was calculated,and body mass increase rate of mice in each group was detected.Tumor histopathological changes,spleen index, peripheral blood white blood cell count,and lymphocyte proportion were detected by HE staining method.The ratio of CD4+T to CD8+T cells.

Results and discussion

The tumor growth curve showed that the growth rate of transplanted tumors in the combined group was the slowest. The tumor inhibition rates of Tongxiaoyanghe granules group, Cyclophosphamide group and combination group were 33.59%,77.87% and 91.04%, respectively. Spleen index of negative control group,model group, Tongxiaoyanghe granules group, Cyclophosphamide group and combined group were 4.36±0.13, 19.68±5.83, 15.28±4.16, 11.09±3.64 and 7.14±2.59, respectively. The white blood cell count and lymphocyte proportion in peripheral blood were 2.0±0.47 and (70.71±5.29)%,30.42±3.51 and (unclassifiable),11.89±1.47 and (22.65±2.34)%, 1.35±0.41 and (48.89±4.52)% and 2.34±0.34 and(56±5.19)%, respectively.The ratio of CD4+T to CD8+T cells were 1.29±0.05,0.59±0.11,1.37±0.31, 0.68±0.19 and 1.16±0.22,respectively.HE staining of breast cancer tumor tissue showed that breast cancer cell density decreased and cytoplasmic staining was light in the granulars group, cell density decreased significantly in the Cyclophosphamide group and the combined group,necrosis lesions increased significantly,and nucleus contraction or even fragmentation was obvious.Compared with Cyclophosphamide group,the tumor inhibition rate, spleen index,T cell total, CD4+T and CD8+T cell ratio and body mass increase rate in combination group were significantly increased,and the peripheral blood white blood cell count and lymphocyte proportion tended to be normal.

Thus,Tongxiaoyanghe granules combined with Cyclophosphamide significantly inhibited the tumor growth process,increased chemotherapy sensitivity, alleviated toxic and side effects,and regulated the body's immunity,providing a better treatment strategy for breast cancer patients.

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NEW LIGHT ON TREATMENT OF OVARIAN CANCER: CHINESE MEDICINE MONOMERS CAN BE EFFECTIVE FOR OVARIAN CANCER BY REGULATING OXIDATIVE STRESS-RELATED TARGETS

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Abstract. Ovarian cancer (OC) is one of the common malignant tumors in women, and its development and metastasis are closely related to oxidative stress (OS). Chinese medicine monomers, due to their diverse chemical structures and pharmacological activities, are considered potential sources of drugs for treating OC. Given this, this study reviews and examines the relevant literature on Chinese medicine monomers for the treatment of OC by regulating oxidative stress-related targets. A total of 62 articles covering 45 different Chinese medicine monomers were retrieved and classified into categories, including flavonoids, alkaloids, polysaccharides, glycosides, phenols, anthraquinones, esters, terpenes, lignans, and ribosomal proteins. The research findings indicate that Chinese medicine monomers possess antioxidant and anti-inflammatory effects and can inhibit OC cell growth, promote apoptosis, and increase the sensitivity of OC cells to chemotherapy. However, most studies are still in the in vitro and animal experiment stages, and further clinical research is needed.

Keywords: Chinese medicine monomers, oxidative stress, ovarian cancer, treatment, mechanism research

OC is one of the most lethal gynecological malignancies, with a five-year survival rate of less than 45%. Current main treatments for OC include surgical resection, chemotherapy, and radiotherapy. However, more than 50% of OC patients eventually experience recurrence and late-stage metastasis,

and adverse reactions and drug resistance remain significant challenges in OC treatment. Thus, the development of novel, effective, and safe anticancer drugs is urgently needed.

Oxidative stress (OS) refers to the imbalance between the oxidative system and the antioxidant system in the body, and its mechanism exhibits duality. On one hand, reactive species in the oxidative system can promote tumor growth, while on the other hand, prolonged elevated oxidative levels have cytotoxic effects, inhibiting OC cell proliferation or reversing drug resistance, and is closely associated with the occurrence and development of OC.

Against this backdrop, Chinese medicine monomers have attracted increasing attention due to their safety, low toxicity, minimal side effects, and anticancer properties, as they can inhibit OC progression by regulating OS-related targets.

Objective

To review and summarize the research progress of Chinese medicine monomers in the treatment of OC, understand their regulatory effects on OS-related targets, and provide a reference for further clinical research and drug development.

Materials and methods

PubMed, Web of Science, Embase, Cochrane Library, CNKI, and VIP databases were searched using keywords such as « Chinese medicine monomers» «OC» «OS» and related terms. Relevant literature published between 1990 and 2023 was analyzed, and the reference lists of identified studies were searched. Articles that could be affected by selection bias, detection bias, and other potential biases were excluded.

Results and discussion

1. A total of 1158 articles were identified through the search, and after excluding articles that could be affected by bias sources, 62 studies were finally included, of which 1 were relevant to clinical studies (Identifier: NCT05306002, not yet recruiting patients). The remaining articles mainly focused on animal and cell experiments.

2. A total of 45 Chinese medicine monomers were identified and classified into categories, including flavonoids (11), alkaloids (4), polysaccharides (3), glycosides (2), phenols (6), anthraquinones (5), esters (5), terpenes (7), lignans (1), and ribosomal proteins (1).

3. In vitro experimental results showed that Chinese medicine monomers mainly exerted anticancer effects through two aspects: (a) Antitumor activity: Chinese medicine monomers can inhibit OC cell proliferation, invasion, and migration by promoting or inhibiting OS. Additionally, they can inhibit tumor cell viability and growth by inducing apoptosis, pyroptosis, autophagy, inducing cell cycle arrest, and causing DNA oxidative damage. (b) Reversal of drug resistance: Chinese medicine monomers may promote OS and subsequently regulate the expression of drug resistance-related proteins and signaling pathways to reverse tumor cell drug resistance, increase the accumulation of chemotherapy drugs in tumor cells, enhance cytotoxicity, and increase tumor cell sensitivity to killing.

4. In vivo experimental results indicated that Chinese medicine monomers can inhibit tumor growth, disrupt tumor tissue structures, and exhibit good safety in nude mice by regulating OS.

Conclusion

Chinese medicine monomers, as a class of potential anti-OC drugs, demonstrate anticancer activity through the regulation of OS-related targets, and possess advantages such as natural sources, anticancer activity, safety, and low cost. However, their clinical application still requires further in-depth research and rigorous clinical trials to confirm their efficacy and safety. We look forward to Chinese medicine monomers becoming new drugs or adjuvants for the treatment of OC, providing more treatment options and hope for patients.

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OPTIMIZATION OF EXTRACTION AND CONTENT DETERMINATION OF MACA POLYSACCHARIDES

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Abstract. Firstly, we conducted experiments to explore the optimal conditions for extracting polysaccharides from ryegrass, focusing on extraction frequency and alcohol precipitation time as the key factors. Subsequently, we employed the phenol-sulfuric acid method to determine the polysaccharide content in ryegrass and investigated the optimal measurement conditions. The influence of phenol dosage and concentrated sulfuric acid dosage was studied, utilizing a one-factor experimental design. This experiment effectively extracted polysaccharides from ryegrass using water extraction and alcohol precipitation methods. Furthermore, the phenol-sulfuric acid method could robustly determine the polysaccharide content in ryegrass, providing relevant data for establishing quality standards for ryegrass polysaccharides in the future.

Keywords: Macaga polysaccharides; Extract; content determination; phenol-sulfuric acid; quality standard

Maca (Lepidium meyenii Walp) is a plant belonging to the cruciferous vegetable family, native to the challenging natural environment of the central Andes Mountains in South America, where it grows at altitudes exceeding 3000 meters [1]. Maca is rich in carbohydrates, amino acids, and various nutrients. It also contains secondary metabolites such as phytosterols, polyphenols, alkaloids, and glucosinolates [2]. Additionally, it is a good source of minerals and trace vitamins. Maca can be consumed as food and used as an herbal remedy, offering multiple health benefits.

Traditionally, maca has been recognized for its effective improvement of sexual function, enhancement of fertility, alleviation of menopausal syndrome in women, and treatment of cancer and septicemia [3]. In recent years, medical research has discovered several other advantages of maca, such as anti-fatigue properties and regulation of hormone levels. Although there have been some studies on the optimization of maca polysaccharide extraction processes, they are not comprehensive. Hence, this paper aims to focus on the extraction and determination of maca polysaccharides through extensive research.

Objective

To explore the optimal conditions for water extraction of maca polysaccharides, determine the content determination method and explore the optimal conditions of the content determination method by univariate experimental method, and explore the active components of maca polysaccharide based on the molecular docking mechanism.

Materials and methods

The influence of extraction times on the extraction of maca polysaccharides using the water reflux method was investigated. Furthermore, the property of maca polysaccharides being insoluble in ethanol with a volume ratio of over 70% was utilized for the experimental design of studying the effect of ethanol sedimentation time. Among the commonly used methods for determining polysaccharide content, such as the sulfuric acid-phenol method and sulfuric acid-anthraquinone method, the sulfuric acid-phenol method was chosen for its simplicity and stability to measure the polysaccharide content of maca.

Results and discussion

Since multiple extractions would extract impurities from maca, which could interfere with subsequent experiments and complicate the experimental procedure, two extraction times were considered to be optimal. In exploring the effect of ethanol sedimentation time, it was found that the highest extraction rate was achieved at 22 hours, while the polysaccharide content decreased after 24 hours. This is because a shorter time is insufficient to fully precipitate the polysaccharides in the extract, while a longer time could result in the precipitation of impurities. Therefore, a sedimentation time of 22 hours was determined to be the most suitable.A phenol dosage of 0.25 mL was deemed most appropriate under the condition of a 1.0 mL test sample.

In the investigation of concentrated sulfuric acid dosage, before reaching 2.5 mL of concentrated sulfuric acid, it is speculated that the amount of concentrated sulfuric acid was not sufficient to completely react with the test sample solution to form furfural derivatives. As a result, phenol, as a coloring agent, was unable to fully colorize the normal amount, leading to failure in reaching the peak absorbance. On the other hand, a larger dosage of concentrated sulfuric acid may have undergone condensation reaction with phenol, causing a decrease in the colorizing agent and

subsequent reduction in absorbance. Therefore, according to the optimal ratio of test sample, phenol, and concentrated sulfuric acid of 4:1:5, it is the best condition for determining the polysaccharide content of maca.

When exploring the optimization of the determination method, the sulfuric acid anthrone method was not used in this experiment because literature records showed that the phenol sulfuric acid method is better, but only the influence of reagent dosage was investigated. These factors are the main influencing factors, and adding reaction time during the investigation process will be more comprehensive.

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STUDY ON THE MECHANISM OF ACTION OF JINKUI SHENQI PILL IN THE TREATMENT OF PERIODONTITIS

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Abstract. Periodontitis is a very serious chronic inflammatory disease, due to the early no obvious symptoms and easy to be ignored, to be symptomatic has been more serious, and even have been unable to retain teeth. The flavonoids in Jinkui Shenqi Pill have been shown to have anti-inflammatory effects. In this paper, the flavonoids in Jinkui Shenqi Pill were extracted by ultrasonic extraction, and the optimal extraction process was explored according to ultraviolet-visible spectrophotometry. The main targets and pathways for the treatment of periodontitis were demonstrated by network pharmacology to facilitate more targeted development of target drugs to treat the disease in the future.

Keywords: Jinkui Shenqi Pill; extraction of total flavonoids; content determination; network pharmacology; periodontitis

Jinkui Shenqi Pill has the effect of warming the kidney yang, moving qi and transforming water, and is a traditional Chinese medicine prescription recorded in the «Essentials of the Golden Chamber». Flavonoids are polyphenols that are widely found in nature, and they are also one of the active substances contained in Jinkui Shenqi Pill. Flavonoids have many medicinal values such as antioxidant, antidiabetic, anti-aging, antitumor, antiviral, immunomodulatory, and cardiovascular system protection, etc. They can also inhibit inflammation, reduce oxidative stress damage, control blood glucose and lipids, and effectively treat diabetes and its complications. The total flavonoid content of Jinkui Shenqi Pill can be determined by ultraviolet-visible spectrophotometry [1]. Network pharmacology is based on «disease-gene-target-drug» to show the way of drug treatment of disease through multi-targets and multi-pathways in view mode, and its dialectical thinking is similar to the whole of traditional Chinese medicine, which is in line with the holistic view of traditional Chinese medicine on the understanding of disease. Periodontitis is a chronic inflammation of periodontal supporting tissues caused by local factors. Based on the anti-inflammatory mechanism of the flavonoid components in Jinkui Shenqi Pill, its mechanism of action in treating periodontitis can be further elaborated through network pharmacology [2].

Objective

The aim of this study was to extract the total flavonoids from Jinkui Shenqi Pill by changing

different conditions, to determine the content of the total flavonoids by ultraviolet-visible spectrophotometry with rutin as the standard, and to screen the active flavonoids based on the online pharmacological database, and to analyze their targets and mechanisms of action in the treatment of periodontitis.

Materials and methods

Fix the amount of chromogen, change the concentration of total flavonoid extract and measure the absorbance at 510 nm to determine the maximum concentration of the sample and the optimal time for color development; optimize the extraction process of the total flavonoid of Jinkui Shenqi Pill by ultrasonication and alcohol extraction combined with the orthogonal test; take rutin as the standard to develop a standard curve, extract the total flavonoid of Jinkui Shenqi Pill according to the optimal extraction process and add chromogen to develop the color for 15 min at 510 nm, and then calculate the content of the total flavonoid of Jinkui Shenqi Pill by replacing it with the standard curve[3]. The main components and targets of Jinkui Shenqi Pill and the disease targets of periodontitis were collected through online databases and websites to construct a «component-target-pathway» model to explore the pathway of Jinkui Shenqi Pill for the treatment of periodontitis [4].

Results and discussion

The optimal experimental protocol for the determination of the total flavonoid content of Jinkui Shenqi Pill was as follows: the material-liquid ratio of 1:20, ultrasonic extraction for 30 min, and the dosage of extraction solution should not be more than 2.5 mL under the conditions that the dosage of the color developing agent, NaNO2-Al(NO3)3-NaOH, is 0.2 mL, 0.2 mL and 1 mL, and the optimal time of the color developing was between 14 and 18 min. It is mainly used to treat periodontitis by targeting TNF, AKT1, SRC and EGFR.

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OPTIMIZATION OF POLYSACCHARIDE EXTRACTION METHOD AND DESIGN OF CONTENT MEASUREMENT METHOD IN MAREN RUNCHANG WAN

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Abstract. The polysaccharides of Maren Runchang Wan required for the extraction and separation experiment were extracted under different conditions to improve the extraction rate of polysaccharides. A method for determining the content of polysaccharides in Maren Runchang Wan was established, and the optimum amount of reagent for the phenol-sulphuric acid method was selected. The content of polysaccharides in Maren Runchang Wan was determined using the phenol-sulphuric acid method.

Keywords: Maren Runchang Wan, phenol-sulphuric acid method, polysaccharide, extraction method, condition optimization

As society develops and people's lives become busier, there is growing concern about the impact of unhealthy diet and lifestyle choices on gastrointestinal diseases. Maren Runchang Wan, a traditional Chinese medicine, contains ingredients such as Hemp Fruit, Bitter almonds (roasted), Rhubarb, Aucklandia Lappa, Tangerine Peel, and White Peony Root. These ingredients have been found to help moisten the intestines, promote the flow of qi, and relieve constipation. Previous

studies have focused on the determination of specific ingredients like emodin, chrysophanol, and hesperidin in Maren Runchang Wan using HPLC method. However, there is a lack of information regarding the polysaccharide content. Therefore, this study aims to extract and determine the polysaccharide content of Maren Runchang Wan to evaluate its overall quality and provide a foundation for improving its formulation and quality standards.

Objective

To confirm the optimal polysaccharide extraction conditions of Maren Runchang pills, establish a method to determine the polysaccharide content, and explore the optimal amount of chromogen.

Materials and methods

Grind the Maren Runchang Wan into coarse powder. Take 2.00g of the powder and place it in a 250ml round-bottom flask. Add 60ml of distilled water to create a solid-liquid ratio of 1:30. Soak for 10 minutes, then reflux for 1 hour and cool. Filter and concentrate the solution. Mix 1ml of the concentrate with 3ml of 95% ethanol, refrigerate at 4°C for 12 hours, centrifuge, and let the alcohol evaporate. Dissolve the polysaccharides in 2ml of distilled water and transfer to a 50ml volumetric bottle, then make up. This serves as the polysaccharide stock solution. To investigate the effect of extraction time on polysaccharide yield, set extraction times of 0.5h, 1.0h, and 1.5h while keeping other conditions constant. For the effect of solid-liquid ratio, set ratios of 1:20, 1:30, and 1:40 while keeping other conditions constant. Prepare standard, phenol, and sample solutions to examine polysaccharide content. Measure 1.00ml of the control stock solution and polysaccharide sample solution into two test tubes. Add 1.00ml of distilled water, mix, then quickly add 1.00ml of 5% phenol solution and 5.00ml of concentrated sulfuric acid. Shake and place in a water bath at 85°C for 15 minutes. After cooling, scan the mixture using a UV-Vis spectrophotometer in the 400-600nm range. The maximum absorption peak occurs at 490nm, used as the detection wavelength. Use a blank tube without phenol and sulfuric acid to measure the absorbance A at 490nm. To investigate the effect of phenol amount, set amounts of 0.6, 0.8, 1.0, 1.2, and 1.4ml while keeping other conditions constant.

Results and discussion

The results of the experiment show that the highest rate of polysaccharide extraction for Maren Runchang Wan is achieved at an extraction time of 1.0 hour, with an average yield of 14.56%. Lower yields were observed at extraction times of 0.5 hours and 1.5 hours, which may be due to insufficient dissolution of polysaccharides when the extraction time is too short, or degradation and precipitation of polysaccharides when the extraction time is too long. When the liquid-to-solid ratio is considered, the maximum polysaccharide extraction rate is achieved at a ratio of 1:30, with an average yield of 14.56%. This is because lower ratios result in insufficient dissolution of polysaccharides, while higher ratios lead to co-dissolution of impurities and a decrease in yield. In the content determination experiment, the absorbance A was measured at 0.555, and the calculated polysaccharide content in Maren Runchang Wan was 5.2%. Within the range of 0.6ml to 1.4ml of 5% phenol, the absorbance initially increases and then decreases. The optimal absorbance is achieved with 1.0ml of phenol, indicating the need for an appropriate amount of phenol for optimal color development. This is because concentrated sulfuric acid initially reacts with excess phenol rather than polysaccharides.

Therefore, the phenol-sulfuric acid method is recommended as a reliable approach for determining the polysaccharide content in Maren Runchang Wan.

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TLR2 AND TLR4 ARE INVOLVED IN THE TREATMENT OF RHEUMATOID ARTHRITIS SYNOVIAL FIBROBLASTS WITH A MEDICATED SERUM OF ASARININ THROUGH INHIBITION OF TH1/TH17 CYTOKINES

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Abstract. Asarinin is one of the main active chemical components isolated from Xixin, a Chinese medicine. To investigate the role of asarinin in rheumatoid arthritis (RA), the present study investigated the effect of an asarinin-medicated serum on human fibroblast like synoviocytes in vitro. The results revealed that medicated asarinin serum inhibited the viability of RASFs in a dose- and time-dependent manner. The serum also suppressed the expression of interleukin (IL)-17A, tumor necrosis factor-α, interferon-γ, IL-6, TLR2 and TLR4.

Keywords: asarinin, medicated serum, rheumatoid arthritis synovial fibroblasts, T helper cell 1, T helper cell 17, toll-like receptor

Rheumatoid arthritis (RA) is an autoimmune disease that is mainly mediated by cytokines and is characterized by the abnormal proliferation of synovial cells, the massive infiltration of inflammatory cells and the progressive destruction of joints.

Xixin is isolated from the dried roots and rhizomes of Asarum heterotropoides f. mandshuricum (Maximowicz) Kitagawa, A. sieboldii Miq. var. seoulense Nakai andA. sieboldii Miq. (Aristolochiaceae). Xixin is used to treat colds, fever, headaches, coughs and RA in traditional Chinese medicine [1]. Asarinin (molecular weight,354.35) is one of the main active chemical components isolated from Xixin.Many pharmacological effects have been identified in asarinin, including anti-inflammatory effects, antipyretic properties and immune inhibition.

Objective

A previous study indicated that asarinin significantly inhibited the macroscopic score and cartilage destruction of collagen-induced arthritis. However, little is known about the effect of asarinin on RA synovial fibroblasts. The present study aimed to determine the pharmacological profile of asarinin and its potential effect on RA.

Materials and methods

An asarinin-medicated serum was generated and analyzed by high performance liquid chromatography. Fibroblast like synoviocytes were isolated from patients with osteoarthritis and RA. The third generation of the rheumatoid synoviocytes was used in the experimental research and the third generation of osteoarthritic synoviocytes was used as control cells. Trypan blue staining was performed to detect the viability of RA synovial fibroblasts (RASFs). ELISA, reverse transcription-quantitative (RT-q) PCR and western blotting were also performed to detect the expression of various cytokines. Additionally, RT qPCR was employed to detect Toll like receptor (TLR) 2 and TLR4.

Results and discussion

The results revealed that medicated asarinin serum inhibited the viability of RASFs in a dose and time dependent manner. The serum also suppressed the expression of interleukin (IL) 17A, tumor necrosis factor-α, interferon-γ, IL 6, TLR2 and TLR4.The inhibitory effect of asarinin drug serum on RASFs may be achieved by inhibition of T helper cell (Th)1/Th17 cytokines through suppression of TLR2 and TLR4.

T helper cells (Th) are divided into Th1, Th2 and Th17 subgroups according to the different expression profiles of secretory cytokines. It has become clear in the last few years that T cell-derived cytokines expressed preferentially by Th1 cells contribute to joint destruction and inflammatory response in RA, whereasTh2 cell-associated cytokines may be protective. However, recent research on Th17 cells and regulatory T cells (Treg) has demonstrated that an imbalance between Th1/Th2/Th17/Treg cells is important to the pathogenesis of RA. Although the origin of RA is unclear, it has been determined that lymphocytes accumulate around the terminal blood vessels of the subsynovial layer prior to the inflammatory response [2]. The synovium is composed of two layers, namely the synovial lining layer (lining cells) and the lower synovial lining layer (or supporting layer) [3].Another major feature of RA is the abnormal proliferation of synovial cells in the lining layer and the expression of transformed cells, which erode the surrounding bone and cartilage .Increasing evidence has confirmed that the activation state of RA synovial fibroblasts (RASFs) is critically dependent on TLR expression, which in turn is known to serve an essential role in T cell differentiation and function . TLR2 and TLR4 have been revealed to serve important functions in pathogenesis of RA and they has been determined that the expression of TLR-2 and TLR-4 is increased and regulated by proinflammatory cytokines that are present in the synovial compartment .Activation

of these RASF-expressed TLRs exacerbates inflammatory Th1 and Th17 cell expansion in cell-cell contact-dependent and inflammatory cytokine-dependent pathways, inducing the increased accumulation of interferon (IFN)-γ and interleukin (IL) -17 .Targeting TLRs may therefore modulate inflammation in RA and provide novel therapeutic strategies for overcoming this persistent disease .

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TRADITIONAL CHINESE MEDICINE - ACUPUNCTURE

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Abstract. Russia is a country where modern medicine dominates in the field of medical and health care, and the treatment methods of traditional medicine have attracted widespread attention from the Russian people in recent years. Acupuncture has a long history in Russia (Soviet Union) and is constantly growing, with a complete clinical application, legal and educational system. At present, China's «Belt and Road» cooperation in the field of traditional Chinese medicine and health is also an important part of it, we must make the diagnosis and treatment technology of traditional Chinese medicine benefit more local and neighboring countries, better promote the exchange and mutual learning of traditional medicine between China and countries and regions along the «Belt and Road», and tell Chinese stories well.

Keywords: Traditional medicine; acupuncture; History of acupuncture

Objective

Discuss the prospects for the development of acupuncture in Russia and China.

Materials and methods

Russia has indigenous traditional medicine, Russia has always been popular with herbal remedies to treat diseases, Russia is a vast country, rich in resources, forests have many herbs, Russians can use to prevent diseases. There are also traditional medicines imported from abroad, such as Tibetan medicine in the 19th century in the Russian capital, using Tibetan medicine to cure a variety of intractable diseases, followed by the establishment of many Tibetan medicine clinics in Moscow [1]. Among them, acupuncture was introduced to Russia by China and is called «reflexology», which is synonymous with acupuncture.

Acupuncture was introduced to Russia as early as the 17th and 18th centuries, and in 1945, N.Y. Glashenkov cooperated with the Soviet Academy of Medical Sciences to study the effects of acupuncture on the body, which is the effect and mechanism of acupuncture. Since then, there have been more and more exchanges on acupuncture between China and Russia, and acupuncture has also generally developed in Russia[2]. Through literature search, look for the application of acupuncture.

Results and discussion

Агасаров, Л Г found that when treating lumbosacral back pain, reflexology regional administration can be a positive change in the structure of the affected disc and has a good effect[3]. Acupuncture has been widely spread in Russia during the former Soviet Union, and began to develop deeply during the collapse of the former Soviet Union, deepening the understanding and research of acupuncture. In Russia, various disciplines, such as pediatrics, internal medicine, surgery, etc., continue to pour in, and explore from multiple angles[4]. In 1992, Liu Jinghong used Tuina and acupuncture in Russia to achieve satisfactory results for 58 frozen shoulder patients [5]. Molchanova EE et al. used reflex combination therapy technology to improve neurorehabilitation technology in the acute phase of human-onset ischemic stroke, which has high clinical efficacy, helps to accelerate the degeneration of neurological symptoms, and improves psychoemotional state, which helps patients adapt to the daily life of patients after surgery [6].

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RESEARCH PROGRESS ON PHARMACOLOGICAL EFFECTS OF DANGGUI BUXUE DECOCTION POLYSACCHARIDES ON ENHANCING HEMATOPOIETIC FUNCTION

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Abstract. Danggui Buxue Decoction (DBD) is a traditional Chinese medicine formula with proven clinical efficacy. Polysaccharides in DBD have been shown to hematopoietic, boost immunity, and exhibit anti-tumor properties, making them an attractive component for further research. This paper summarized the role and mechanism of DBD polysaccharides in hematopoietic function, with the aim of providing a reference for the development of potent DBD polysaccharides drugs for hematopoietic function.

Keywords: Danggui Buxue Decoction; polysaccharide; hematopoietic function; pharmacological effects

In recent years, the application of DBD in clinical settings has displayed effective therapeutic outcomes in patients with focal cerebral ischemia, ischemic heart disease, and diabetic atherosclerosis, especially the polysaccharide component, which is effective in enhancing hematopoietic function. This paper provides an overview of the function and mechanism of DBD polysaccharide in enhancing the hematopoietic function of the body, with the aim of serving as a reference for future research and practical applications.

1.Introduction to Danggui Buxue Decoction

Danggui Buxue Decoction (DBD), one of the representative classical medical prescriptions, was first recorded in « NeiwaishangBianhuoLun « written by Li Dongyuan in Jin Dynasty, it consisted of Astragali radix and Angelica sinensis with a mass ratio of 5:1, which is extraordinarily used for tonifying blood [1]. Modern pharmacological studies have shown that polysaccharides, the key active components of DBD, can enhance tonifying blood through multiple pathways.

2.Pharmacological effects of DBD to enhance hematopoietic function

Astragalus polysaccharides have protective effects on hematopoietic systems, particularly white blood cells and platelets, and anti-apoptotic effects on bone marrow cells via JC-1 and Caspase-3 pathways [1]. Astragalus polysaccharide may offer protection against radiation injury in mice by reducing p53 expression and delaying programmed cell death in hematopoietic stem cells [2]. Simultaneously, Astragalus polysaccharides can boost bone marrow cell proliferation rate, enhance STAT5 and JAK2m RNA expression in monocytes, and bolster bone marrow hematopoietic function [3].

Angelica polysaccharides have been shown to enhance the proliferation of hematopoietic growth factors, and regulate the expression of proteins SIRT1, p53, and p21, thereby improving the hematopoietic microenvironment and achieving hematopoietic effects [4-5]. Polysaccharides from Angelica may regulate the proliferation, signal transduction, and STAT3 signaling pathway of

bone marrow-derived mesenchymal stem cells in the hematopoietic microenvironment and enhance the biological characteristics of the hematopoietic microenvironment [6].

Discussion

Polysaccharides are a vital active constituent of DBD that significantly enhance the body's hematopoietic function, and have great development potential. In reality, there are still many problems with its development. For instance, acquiring a single, highly pure polysaccharide through current methods of extraction and separation poses a challenge. In view of the above problems, new separation techniques should be developed in medical facilities, while deeper studies on methods for analyzing polysaccharide structures are necessary to fully elucidate the mechanism of DBD polysaccharides in enhancing hematopoietic function. We will actively pursue the development of DBD's polysaccharide components to promote innovation in traditional Chinese medicine.

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THE CLINCIAL APPLICATION OF HUANGQI GUIZHI WUWU DECOCTION BASED ON THE INNOVATIVE BACKGROUND OF TRADITIONAL MEDICINE

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Abstract. Traditional Chinese medicine (TCM) is facing huge demand and development opportunities. Modern medicine, which takes health and clinical efficacy as indicators, is creatively transforming Traditional medicine to achieve innovative development. Huangqi Guizhi Wuwu Decoction (HGD) is a classic prescription for treating blood arthralgia in Traditional medicine, but through the exploration and innovation of modern medicine, the multiple applications of HGD have been gradually explored. This article summarizes its clinical application projects, which pave the way for enlarging the advantages of classic famous prescriptions and other TCM, so that Traditional medicine can play a greater role in maintaining health and preventing diseases.

Keywords: Traditional medicine, innovation, classic prescriptions, clinical application, research progress

Traditional medicine is favored by the world, and innovation has injected new vitality into the development of Traditional medicine. While using medication more reasonably in clinical practice, through continuous exploration and innovation by researchers, the ancient formula that originally treated diseases with a single ingredient has also been excavated with more indications and a wider range of drug use. HGD is made by decocting astragalus membranaceus, cassia twig, white peony, ginger, and jujube with water. It has the effects of dispelling wind and dispelling evil and promoting blood circulation and clearing obstruction. HGD was originally a classic ancient formula for treating blood stasis, but after innovative exploration, the clinical indications of HGD have gradually enriched. This article summarizes the literature on clinical application of HGD, with a view to providing support for Traditional medicine on the road of rejuvenation.

Progress in the Application of Huangqi Guizhi Wuwu Decoction

1. Huangqi Guizhi Wuwu Decoction for the Treatment of Osteoarthritis

Liu Mengyu[1], Han Xu[2] and Luo Haiqiang[3] respectively treated patients with diabetes peripheral neuropathy, Rheumatoid arthritis and cervical spondylotic radiculopathy with HGD, and found that the total effective rate was more than 90%.

2. Huangqi Guizhi Wuwu decoction for the treatment of cardiovascular and cerebrovascular diseases

Professor Feng Xianyong[4] and Professor Fu Yu[5] respectively used HGD to treat patients with cerebral infarction in the recovery period and patients with Raynaud syndrome. The results showed that the patients' cerebral blood flow resistance index and pulsation index decreased, the average blood flow speed increased, and the symptoms of numbness, cold, stiffness of fingers gradually improved.

3. Huangqi Guizhi Wuwu decoction for the Treatment of Internal Medicine Diseases

Hou Weiguo[6]used HGD to treat patients with IgA nephropathy and neurotoxicity. They found that the effective rate of Huangqi Guizhi Wuwu Decoction alone or in combination with western medicine was higher than that of western medicine alone.

Conclusion

The issue of how TCM should innovate and develop is the goal pursued by the majority of TCM workers. Taking the modern application of HGD as an example, this article shows that Traditional medicine can still find new indications and burst new vitality under the continuous exploration of modern scholars, which is also the only way for the continued development of traditional medicine.

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ADVANCES IN THE BIOSYNTHESIS, METABOLISM, AND ACTIVITY OF CHEMICAL CONSTITUENTS OF *PAEONIA LACTIFLORA* PALL.

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Abstract. As a commonly used Chinese medicine, *Paeonia lactiflora* Pall has left a strong mark in the history of Chinese medicine. The carrier of the drug effect in *Paeonia lactiflora* Pall is the chemical component, and monoterpenoid glycosides is the representative component in many chemical components of *Paeonia lactiflora* Pall. The analysis of biosynthesis, metabolism and bioactivity of the monoterpenoid glycosides is helpful to promote the related research of *Paeonia lactiflora* Pall. Therefore, the biosynthesis, metabolism and biological activities of monoterpene glycosides, the main active component of *Paeonia lactiflora* Pall, were reviewed in this paper, hoping to provide data reference for the study of the pharmacodynamic mechanism of the effective components with clinical efficacy in *Paeonia lactiflora* Pall.

Keyword: *Paeonia lactiflora* Pall, monoterpenoid glycosides, biosynthesis, metabolism, activity

Paeonia lactiflora Pall has been shown to have a variety of pharmacological effects, such as immune regulation, anti-inflammatory, antioxidant, anti-depression, skin protection, and anti-Arteriosclerosis[1]. The chemical composition of *Paeonia lactiflora* Pall is complex, involving

monoterpene glycosides, flavonoids, phenolic acids and other components[2]. Drug activity is closely related to chemical composition, which guides the expression process of drug activity[3]. In the complex chemical composition group of TCM, the active ingredients that can be absorbed into the blood across the membrane and can show clinical efficacy are defined as pharmacodynamic material basis or the direct bioactive substances in the body. Therefore, the biosynthesis, metabolism and activity of monoterpenoid glycosides, the main active ingredient in Paeonia lactiflora Pall, were reviewed in this paper. It is expected to provide data reference for the characterization of effective components with clinical efficacy in Paeonia lactiflora Pall, and further study the activity of Paeonia lactiflora Pall.

Biosynthesis pathways of monoterpenoid glycosides

Monoterpene glycosides are characteristic components in the complex chemical constituents of Paeonia lactiflora Pall[4]. Representative ingredients are paeoniflorin, hydroxypaeoniflorin, oxypaeoniflorin, benzoylpaeoniflorin, benzoyloxypaeoniflorin, albiflorin, galloylalb-iflorin, Lactiflorin and others.

In the first stage, the universal precursor, isopentenyl pyrophosphate (IPP), and its isomer, dimethylallyl diphosphate (DMAPP) were synthesized. In the cytosol, IPP is produced by the mevalonic acid (MVA) pathway using acetyl CoA as a substrate. At the same time, the 2-c-methyl-d-erythritol 4-phosphate (MEP) pathway comes up in the plastid, where DMAPP is synthesized from pyruvate and glyceraldehyde-3-phosphate. When IPP and DMAPP are synthesized, Isopentenyl diphosphate isomerase (IDI) acts as a catalytic enzyme which accelerates the interconversion of the intermediates. The existence of IDI maintains the dynamic balance of the intermediates and promotes the process of the second stage. The second stage also occurs in the plastid where Geranyl diphosphate (GPP) is generated from IPP and DMAPP in a 1:1 ratio under the catalysis of geranyl diphosphate synthase.

Metabolic and biological activities of monoterpenoid glycosides

Paeoniflorin can be transformed into main metabolites 7S-Paeoniflorin I, and trace metabolite II and metabolite III of paeoniflorin under the condition of anaerobic culture under the action of intestinal flora of healthy people. In addition, paeoniflorin can be converted to metabolite I of paeoniflorin by anaerobic peptostreptococcus in anaerobic culture. Paeoniflorin and albiflorin can be transformed into each other under the action of intestinal flora.

A large number of experiments have found that Paeoniflorin metabolites has significant anti-inflammatory, antioxidant and neuroprotective effects. In the cardiovascular system, PF can regulate the expression of Bax/Bcl-2, reduce the level of serum total cholesterol, protect the apoptosis of rat cells and alleviate myocardial damage.

Perspective

With China's growing influence on the world stage, herbal medicine is also widely used around the world. However, the unclear expression of the mechanism of action has always affected the development of the internationalization of Chinese medicine, and the study of the synthesis, metabolism and biological activity of drugs is helpful to show the charm of Chinese medicine to the world. In the future, multi-disciplinary integration should be used to clarify the whole process mechanism of Chinese medicine, and promote Chinese medicine to conform to international standards.

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EMERGING THERAPIES AND THERAPEUTIC TARGETS FOR ALCOHOLIC LIVER INJURY

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Abstract. Alcoholic liver disease (ALD) is a major global health problem caused by chronic alcohol consumption. ALD can lead to liver cirrhosis and hepatocellular carcinoma. Despite the well-established association between alcohol consumption and liver damage, effective therapeutic interventions for ALD are limited. Therefore, there is a growing interest in identifying emerging therapies and therapeutic targets to address this unmet medical need. This review provides a comprehensive overview of recent advances in emerging therapies and potential therapeutic targets for ALD, focusing on preclinical and clinical studies. Several promising treatment strategies have been explored, offering hope for improving patient outcomes and reducing the burden of ALD.

Keywords: alcoholic liver disease, target; farnesoid X receptor; gut microbiota; antioxidant

Introduction

Alcohol abuse and its associated hepatic consequences are a major public health challenge worldwide. Alcoholic liver injury encompasses a spectrum of liver disorders, ranging from hepatic steatosis to advanced fibrosis and cirrhosis. Despite extensive research, therapeutic options for ALD remain limited. Hence, there is an urgent need to explore novel approaches that target key pathogenic mechanisms in alcoholic liver injury.

1. Emerging Therapies for ALD

1.1 Antioxidant Therapy

Oxidative stress plays a critical role in the pathogenesis of ALD [1]. Reactive oxygen species generated during alcohol metabolism cause hepatocellular damage and trigger inflammatory responses, that have shown promise in preclinical studies. However, translating these benefits to clinical practice requires further investigation. The multifactorial nature of ALD necessitates combination therapies that address other contributing factors such as gut dysbiosis and lipid accumulation.

1.2 Anti-inflammatory Agents

Chronic alcohol consumption induces hepatic inflammation through the activation of pro-inflammatory cytokines and chemokines [2]. Therapeutic strategies targeting key inflammatory mediators have shown efficacy in preclinical models of ALD. Clinical trials evaluating these agents are ongoing to validate their therapeutic potential. Combination therapy with anti-inflammatory agents and antioxidants holds promise for mitigating the multifaceted pathogenesis of ALD.

1.3 Nanoparticle-based Therapies

Nanotechnology offers a promising avenue for targeted drug delivery in ALD [3]. Nanoparticles can encapsulate antioxidants, anti-inflammatory agents or siRNA to selectively deliver therapeutic cargo to the liver. This minimizes off-target effects and enhances drug efficacy. Preclinical studies have shown that nanoparticle-based therapies have great potential in the treatment of ALD. However, extensive safety studies are required before these therapies can be translated into clinical practice.

2. Therapeutic Targets for ALD

2.1 Gut Microbiota Modulation

Dysfunction of the gut microbiota has emerged as a major contributor to ALD [4]. Alcohol-induced changes in gut microbial composition and function promote intestinal barrier dysfunction and increase bacterial translocation, leading to liver inflammation. Therapeutic interventions aimed at restoring gut microbial balance, such as probiotics and fecal microbiota transplantation (FMT), hold promise for the treatment of ALD. Combining gut microbiota modulation with traditional therapies may offer a synergistic effect in the treatment of ALD.

2.2 FXR Agonists

The farnesoid X receptor (FXR) is a nuclear receptor that regulates bile acid synthesis and transport [5]. FXR agonists have shown hepatoprotective effects in preclinical models of ALD by reducing liver inflammation and fibrosis. Clinical trials investigating the efficacy and safety of FXR agonists in ALD are ongoing, and combination therapy targeting FXR and other key pathogenic pathways may provide a comprehensive approach to the treatment of ALD.

Conclusion

Alcoholic liver injury is a significant public health challenge, necessitating effective therapeutic strategies. Emerging therapies, including antioxidant and anti-inflammatory agents, nanoparticle-based drug delivery, and gut microbiota modulation, show promise in mitigating ALD's progression. Moreover, targeting specific receptors may provide novel therapeutic approaches for ALD management. As research advances, a deeper understanding of these emerging therapies and targets will pave the way for more effective treatments, reducing the burden of ALD on individuals and society.

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APPLICATION OF BIOINFORMATICS IN THE DEVELOPMENT OF TRADITIONAL CHINESE MEDICINE

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Abstract. Traditional Chinese medicine (TCM) is a drug system with strong regional characteristics, which is gradually summarized and formed along with the development of Chinese people. Its fuzziness restricts its further development, so it is necessary to introduce new technology to enrich its modern connotation and make the mechanism clearly. With the introduction of systems biology, the study of TCM has produced a large number of high-density data, and it is necessary to explore the differences with the help of bioinformatics technology to lay a foundation for depth interpretation of its value. This review briefly summarizes the application of bioinformatics in the development of innovative TCM in order to provide research ideas for the development of TCM.

Keywords: oinformatics, TCM, Effective components, treatment mechanism

TCM is popular because of its unique theory and thousands of years of clinical experience. However, the complexity of its chemical composition and the uncertainty of its therapeutic mechanism have limited its further development. Bioinformatics captures, processes, stores, analyzes and interprets biological information through the comprehensive application of methods and tools in many fields such as mathematics and information science to clarify the biological significance contained in a large number of biological data. In order to promote the development of therapeutic methods in traditional medicine, this review briefly summarizes the application of bioinformatics in the development of innovative TCM.

Introduction to bioinformatics

Bioinformatics is a new interdisciplinary discipline emerging with the launch of the human Genome Project, which is mainly used to solve a series of problems arising from the rapid development of life science, including the collection, sorting, storage, release, extraction, processing and analysis of a large number of biological data, including genes, transcription, proteins and metabolites. To reveal the molecular basis of the physiological and pathological processes of the organism and to explain the mechanisms following drug intervention or treatment [1]. For example, GEO website for gene storage, KEGG website for system functional omics, and data mining technology, and so on [2].

Application of bioinformatics in traditional Chinese medicine

In Li's study [3], high-throughput data were obtained using LC-MS technology based on a self-made rat model of Yanghuang syndrome, and the differential metabolites were mined through data processing methods such as clustering and OPLS-DA, and the mechanism of Jiguocao capsule treated Yanghuang syndrome rats was revealed. In He's study [4], serum pharmacochemistry technology and UNIFI data processing software were used to analyze the migratory components in the blood of Jigucao capsule in the treatment of Yanghuang syndrome, and 43 prototypes and 33 metabolites were found. Combining the results of the two researchers, the mechanism and potential pharmacodynamic substance basis of Jigucao capsule in treating Yanghuang syndrome were

revealed, which laid a foundation for the secondary development of listed varieties.

In Sun's study [5], the serum samples of Yinchenhao decoction in the treatment of dampness-heat jaundice syndrome were analyzed by LC-MS technology, and the collected data were analyzed by multivariate statistical analysis tools (such as PCA) of bioinformatics. 22 biomarkers were identified, related metabolic pathways and therapeutic targets were focused, and the mechanism of action was described, creating conditions for the further development of Yinchenhao decoction.

Discussion

Generally, as an emerging interdisciplinary discipline, bioinformatics provides innovative solutions for how to deal with massive and high-density data sets generated in the field of TCM, and plays a prominent role in the development of therapeutic drugs. However, with the continuous introduction of new technologies and ideas, the update of molecular information of TCM will be accelerated, which will inevitably bring about the optimization of the content of bioinformatics. In the process of the cross-spiral rise of TCM and bioinformatics, more and more new drugs derived from TCM will be created to help the development of traditional medicine.

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CHINMEDOMICS, AN INNOVATIVE STRATEGY FOR TCM SYNDROME DIAGNOSIS

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Abstract. The accurate diagnosis of traditional Chinese medicine (TCM) syndrome is the premise of effective treatment and the inevitable trend of the development of TCM, and it is necessary to apply better modern diagnostic strategies. Chinmedomics is an emerging discipline that can analyze and measure all metabolites produced in the body and provide small molecule metabolites closely related to the syndrome, which opens up new pathway for clinical diagnosis.

Keywords: TCM syndrome; Chinmedomics; Accurate diagnosis

Traditional Chinese medicine (TCM) syndrome is a pathological summary of the location, etiology, pathogenesis and disease of a certain stage in the disease process and reveals the essence of a disease to the greatest extent [1]. Accurate identification for it has always been the core issue of Chinese medicine research. Chinmedomics is an emerging discipline that integrates the theory and technology of systems biology and serum pharmacochemistry of TCM [2]. Through the application of advanced analytical and statistical tools, Chinmedomics has the ability to analyze the comprehensive metabolic profile of low MW compounds in a biological system so as to obtain unique «fingerprints» in different states of the syndrome, which can be used for accurate diagnosis of the syndrome. Over the past decades, Chinmedomics has been applied to identify metabolic changes of various syndromes, which provides useful information for clinical diagnosis.

Application of Chinmedomics in syndrome diagnosis

Ambiguity in the pathogenesis of Alzheimer's disease (AD) hinders the development of effective drugs. Chinmedomics was used to analyze serum samples and found that 16 metabolites were closely related to the pathogenesis of AD,

involving multiple disordered metabolic pathways such as linoleic acid metabolism, arachidonic acid metabolism, butyric acid metabolism, sphingolipid metabolism [3]. Cold coagulation and blood stasis are the main cause of endometriosis. The analysis of urine samples confirmed that Cold coagulation and blood stasis involves the biosynthesis of a variety of amino acids and energy metabolism, which can effectively guide the selection and use of clinical drugs [4]. As we all know, lipid metabolism disorder will lead to coronary heart disease, and the analysis of blood samples by Chinmedomics finally determined that 10 lipids had good clinical diagnosis ability [5]. Colorectal cancer (CRC) is one of the most widespread malignant tumors in the world, Compared with normal mice, the metabolic profile of CRC model mice was significantly disturbed, and 25 lipid-related metabolites, including linoleic acid, 2-hydroxybutyric acid, 6-deoxocastasterone, and hypoxanthine were associated with CRC, which provided new treatment ideas for CRC [6].

Summary and outlook

Life science has entered the era of precision medicine, Chinmedomics presents the tiny metabolic information of the human body through digitalization, standardization and informationization, which has potential advantages in comprehensive and accurate diagnosis of syndrome. In the future, with the advancement of science and technology and the integration of multidisciplinary theories, the precise intervention and prognostic assessment of TCM also will be further promoted.

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THE APPLICATION AND MECHANISM OF LIUWEI DIHUANG PILL IN CONTEMPORARY MEDICINE

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Abstract. Liuwei Dihuang Pill (LWDHP) was used to treat symptoms caused by kidney yin deficiency and had a great curative effect as a famous prescription for nourishing the kidneys. Modern LWDHP has gradually added other indications on the basis of treating children's developmental retardation and has good curative effects in anti-aging, osteoporosis, nervous system diseases, diabetic nephropathy, immune regulation, and tumor treatment. In this article, we summarize current clinical applications to excavate innovative uses of LWDHP and contribute to further study on the comprehensive description of the mechanisms of classical prescriptions for diseases.

Keywords: Liuwei Dihuang Pill, Modern application

Liuwei Dihuang Pill (LWDHP) was composed of 6 herbal medicines, including: prepared root of Rehmannia glutinosa (Gaertn.) DC., rhizome of Dioscorea polystachya Turcz., fruit of Cornus officinalis Siebold & Zucc., root bark of Paeonia × suffruticosa Andrews, rhizome of Alisma plantago-aquatica L. and scleorotia of Wolfiporia extensa (Peck) Ginns [1]. LWDHP with the foundation of nourishing yin and kidney to treat symptoms like soreness of the waist and knees, dizziness and tinnitus, consumptive thirst, and so on. Nowadays, the applications in clinical trials of LWDHP are gradually amplified, with a good cure rate and low adverse reactions. Thus, the application of LWDHP should be summarized as the basis for further application and research of LWDHP as a classic prescription, making full use of classical prescriptions.

1. Anti-aging

Perimenopausal syndrome was characterized by ovarian aging and low estrogen levels, and these patients were susceptible to atherosclerosis, coronary heart disease, hyperlipidemia, etc. LWDHP could improve the quality of life of patients with perimenopausal syndrome, reducing atherosclerotic plaque formation and improving antioxidant effect based on its estrogenic effects [2, 3]. Besides, current studies have proven the effect of LWDHP on prolonging the lives of Caenorhabditis elegans and old mice [4].

2. Osteoporosis

LWDHP has a great effect on increasing bone density and osteoblast differentiation capacity in diabetic nephropathy-related osteoporosis rats, which is related to KDM7A and Wnt/β-catenin signaling pathway [5]. Besides, LWDHP could cure postmenopausal osteoporosis with Shen yin deficiency by up-regulating cardiotrophin-like cytokine factor 1 expression [2]. Osteoporosis is always induced by other related diseases, such as diabetes, which could also be eased after treating LWDHP [6].

3. Dysmnesia

Alzheimer disease (AD) patient were characterized by a growing memory disorder without drug intervention. In clinical, LWDHP improved AD cognitive and memory disorder and as a promising drug by reducing Aβ deposition in hippocampus, overactivation of As and regulating intestinal flora and relevant metabolic pathways [7]. LWDHP also refined study and memory ability of naturally aging rats by protecting CA1 and CA3 areas of hippocampus, M1-AchR and ChAT positive neurons, and enhancing the function of central cholinergic system [8].

Future Perspective:

LWDHP has an extensive application in clinical, and with great effect to anti-aging, osteoporosis and dysmnesia, which were benefit from the multi-target function of TCMs and embodied the advantages of TCMs could treating different diseases with the same treatment. Thus, further study on the mechanism of treating different diseases with LWDHP is helpful to develop innovative treatment methods of TCMs.

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RESEARCH PROGRESS ON ANTI-PROSTATE CANCER AND ITS MECHANISM OF ACTION OF PHELLODENDRI AMURENSIS CORTEX

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Abstract. With the aging population and serious yoga, the incidence of prostate cancer is increasing year by year.Traditional Chinese medicine has good curative effect and advantages in the treatment of prostate cancer. Twelve biomarkers were found to be the core biomarkers of Phellodendri amurensis cortex extract in the treatment of prostatitis, and the target metabolic pathway of Phellodendri amurensis cortex extract in the treatment of prostatitis was determined, and the multi-target and multi-channel therapeutic effects of Phellodendri amurensis cortex on prostatitis were explained from the level of endogenous metabolite changes.

Keywords: Phellodendri amurensis cortex,prostatic cancer,mechanism of action

Prostate cancer (PCa) is one of the most common malignant tumors in the genitourinary system of elderly men. In recent years, with the aging of the population, the incidence of prostate cancer has increased year by year. Therefore, the research on the treatment of prostate cancer is worthy of further development and has certain theoretical and practical significance.

Phellodendri is the dried bark of Phellodendron amurense Rupr. Of Rutaceae. Cold in nature and bitter in taste, entering kidney and bladder meridian. Has the effects of clearing away heat, eliminating dampness, purging fire and detoxicating. Clinically, it is often used to treat damp-heat diarrhea, yin deficiency and excessive fire. Studies have shown that Phellodendri amurensis cortex

has a good effect in the treatment of prostate cancer, gastric cancer, pancreatic cancer, osteosarcoma and other cancers[1]. In this paper, the latest research progress of anti-prostate cancer and its mechanism of action of Phellodendri amurensis cortex was reviewed.

Objective

To summarize the research progress on anti-prostate cancer and its mechanism of action of Phellodendri amurensis cortex.

Materials and methods

Related keywords including «Phellodendri amurensis cortex against prostate cancer», «Prostate cancer treatment» and «Effective components of Phellodendri amurensis cortex» have been consulted on HowNet, Pubmed, Google Academic and other websites to see the mechanism of Phellodendri amurensis cortexin treating prostate cancer

Results and discussion

Phellodendri amurensis cortex mainly contains alkaloids, phenolic acids, limonoids, phenylpropanoids, terpenoids, sterols and volatile components.Swanson et al.[2]showed that the expression of prostate-specific antigen (PSA) in patients with prostate cancer was significantly reduced after one to two months of oral administration of Nexuridine, and the extract was well tolerated and had few toxic and side effects.AddankiP.Kumar et al.[3]used transgenic prostate cancer mouse model (TRAMP) to explore the anti-prostate cancer effect of Cortex Phellodendri extract (Nexrutine) on TRAMP mice. The results showed that prostate cancer extract could significantly inhibit the growth of tumor and delay the development of prostate cancer in TRAMP mouse model.

Sun Hui et al.[4]' s research shows that 12 biomarkers are the core biomarkers of Phellodendri amurensis cortex extract in treating prostatitis, including uric acid, 2- furoic acid, citric acid, prostaglandin A1, prostaglandin A2, retinoic acid, PGF2a ethanolamide, ceramide, 5'-deoxyadenosine, phospholipid, arachidonic acid, sphingomyelin and so on.The target metabolic pathways of Phellodendri amurensis cortex extract in the treatment of prostatitis include starch and sucrose metabolism, riboflavin metabolism, pentose and so on. The results of comprehensive histopathological and metabonomic studies show that the high-dose group of Phellodendri amurensis cortex extract has a strong anti-prostatitis effect.

Traditional Chinese medicine (TCM) has a long history of understanding tumors. However, due to the characteristics of TCM, it is very difficult for TCM to treat tumors worldwide. Therefore, it is of great significance to study and promote the treatment of prostate cancer with integrated traditional Chinese and western medicine and deeply explore the mechanism of Guanhuangbai's anti-prostate cancer.

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SERUM PHARMACOCHEMISTRY OF TCM, AN INNOVATIVE STRATEGY FOR DISCOVERY OF THE MATERIAL BASIS OF DRUG EFFICACY

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Abstract. Serum pharmacochemistry of TCM is a method to analyze the migration components in blood after oral administration of drugs. In recent years, serum pharmaceutical chemistry of Chinese materia medica has been recognized by a large number of scholars and widely used. In this paper, the related literatures at home and abroad in recent years are sorted out, the specific application and method expansion of serum pharmaceutical chemistry of Chinese materia medica are reviewed in many aspects. On this basis, the possible problems of serum pharmaceutical chemistry of Chinese materia medica are analyzed. And its application prospect is explored, so as to provide reference for further application of serum pharmaceutical chemistry of Chinese materia medica in the research field.

Keywords: Efficacy material basis; Serum pharmacochemistry; Chinmedomics; TCM

Introduction

Traditional Chinese medicine is a unique medical system in China, but the composition of traditional Chinese medicine is complicated, and it is difficult to clarify its effective ingredients, which hinders the integration of traditional Chinese medicine with international standards. Chinese medicine serum pharmacochemistry is a method to analyze the chemical substances in the serum after oral administration of Chinese medicine, and then further determine the pharmacodynamic material basis of Chinese medicine or prescription and its internal process [1]. Using the method of serum pharmacochemistry to study the chemical components of traditional Chinese medicine can explain the material basis of the function of traditional Chinese medicine.

Application of serum pharmacochemistry

The material basis of TCM efficacy refers to the sum of all the pharmacodynamic components produced after the action of certain disease. Elucidating the material basis of TCM efficacy is very important to explain how TCM works in vivo and its molecular mechanism. Serum chemistry adopts the research idea of «complex chemical components of traditional Chinese medicine - migratory components in blood - direct acting substances in vivo-pharmacodynamic substances» to clarify the interaction between the body and drugs, and then reveal the substance basis of drug efficacy [2].

The composition of Chinese medicine is complex, and the quality of Chinese medicine is often evaluated by the content of one or several index components, which cannot fully reflect the quality of Chinese medicine. Based on this, the concept of Chinese medicine quality marker was proposed . Serum pharmacochemical method was used to find the chemical components in blood, determine the quality markers of Chinese medicine, further control the quality of Chinese medicine, improve the quality standard of Chinese medicine, and accelerate the modernization of Chinese medicine.

Extension of methods of serum pharmacochemistry

The combination of serum pharmacochemistry and network pharmacology strategies can screen out the active drug ingredients directly acting in the body and directly reflect the pharmacological mechanism, which can effectively solve the

shortcomings of the deviation in the prediction results of network pharmacology.

Molecular docking is a technical method that uses computer technology to simulate the binding of ligands (proteins, small molecules, DNA/RNA) and receptor protein biomacromolecules through the principle of mutual recognition between molecules, and predicts their binding mode and affinity based on calculated parameters.

Chinmedomics is a technology that integrates metabolomics and serum pharmacochemistry. It evaluates the effect of prescriptions on the premise of the corresponding prescription and syndrome. Serum pharmacochemistry technology is used to correlate biomarkers of endogenous syndromes with exogenous prescription components in vivo, and reveal the material basis and mechanism of prescription efficacy .

Results and discussion

In conclusion, use of the Serum pharmacochemistry of TCM to study the chemical components of Chinese medicine and Chinese medicine prescriptions in vivo and in vitro, analysis and identification of transitional components in blood is conducive to the study of drug efficacy material basis. However, there are still some shortcomings, the reproducibility of the experiment is poor due to the influence of individual differences and drug metabolism rate. Secondly, the endogenous substances in serum are complex, and after the dynamic changes of absorption, metabolism and excretion of drugs after entering the body, the content of active ingredients in blood is less than that of endogenous substances, which is not conducive to analysis.

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RESEARCH PROGRESS ON THE CLASSIC FORMULA AND PHARMACODYNAMICS OF RADIX REHMANNIAE PRAEPARATA IN NOURISHING YIN

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Abstract. Radix Rehmanniae Praeparata is the processed product of the Rehmannia glutinosa Libosch. of the genus Ginseng family. Its main functions are to nourish blood, nourish Yin, and benefit the essence and fill the marrow. This study summarized the ancient classic prescription of Radix Rehmanniae Praeparata for nourishing Yin, and sorted out the pharmacodynamics research progress of commonly used prescription containing Radix Rehmanniae Praeparata, including Liuwei Dihuang Pill, DabuYin Pill, Zuogui Pill, Dihuang Yinzi, Danggui Liuhuang Decoction, etc., in order to provide reference for related research on the effect of Radix Rehmanniae Praeparata on nourishing Yin.

Keywords: Radix Rehmanniae Praeparata; classical prescriptions; pharmacodynamics

Ancient classic prescription of Radix Rehmanniae Praeparata for nourishing Yin.

By consulting the ancient classic prescriptions containing Radix Rehmanniae Praeparata for nourishing Yin, which are commonly used in clinic and have definite curative effect, are briefly sorted out. It includes GanluYin, Siwutang and Shiquan Dabu Decoction from "Taiping Huimin Hejiju Prescription" in Song Dynasty, and Liuwei Dihuang Pill from Qian Yi's "Xiaoer Yao Zheng Zhi Jue", Danggui Liuhuang Decoction and Shengyu Decoction from Li Dongyuan's "Lanshi Micang" in the Jin and Yuan Dynasties, Dihuang Yinzi in Liu Hejian's "Xuan Ming Lun Fang", DabuYin Pill and Huqian Pill in Zhu Zhenheng's "Danxi Xinfa", Zuo Gui Wan, Gu Yin Jian, Bao Yin Jian, Jin Shui Liu Jun Jian, and Da Bu Yuan Jian, are all from "Jing Yue Quan Shu" written by Zhang Jingyue in the Ming Dynasty, etc.

Research progress on pharmacodynamics of classical prescriptions of Radix Rehmanniae Praeparata for nourishing Yin.

Diabetes-related diseases DabuYin Pill can treat diabetic nephropathy by steadily and effectively

lowering blood sugar, controlling urinary protein excretion rate, creatinine and urea nitrogen content, and reducing serum cystatin C and retinol binding protein content [1]. Liuwei Dihuang Pill combined with western medicine can effectively reduce the blood sugar level of patients with type 2 diabetes, improve their islet function, reduce inflammatory reaction and improve immune function [2]. Danggui Liuhuang decoction has a certain preventive effect on non-obese diabetes, and its mechanism may be related to reducing islet inflammation, reducing the expression of Bax and increasing the expression of Bcl-2 in islet cells [3].

Nervous system related diseases Liuwei Dihuang Pill combined with donepezil hydrochloride can obviously improve the cognitive ability, clinical symptoms and daily living ability of senile dementia patients with kidney-Yin deficiency, which is worthy of clinical application [4]. Dihuang Yinzi has a significant clinical effect in the adjuvant treatment of deficiency of kidney and marrow syndrome type 2 diabetes mellitus with mild cognitive impairment, which can effectively improve the cognitive dysfunction of patients on the basis of stabilizing blood sugar and has good safety [5].

Gynecological related diseases DabuYin Pill is effective in treating oligomenorrhea due to kidney Yin deficiency, and it is beneficial to the continuous improvement of ovarian function [6]. Jiawei Zuogui Pill combined with estrogen replacement therapy is effective in treating secondary amenorrhea due to premature ovarian failure, with few side effects and good patient compliance, which is worthy of clinical promotion [7].

Discussion

This study hopes to promote the research of classical prescriptions related to nourishing yin of Radix Rehmanniae Praeparata and the secondary development of Chinese patent medicines on the market, and jointly help the treatment of diseases such as liver and kidney yin deficiency and the modern development of Chinese medicine industry.

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APPLICATION OF UPLC-MS-BASED METABOLOMICS IN COLORECTAL CANCER

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Abstract. Metabolomics, one of the most modern omics technologies, has recently gained considerable attention in discovering novel biomarkers. It has been used to identify metabolic changes in the body, gain a better knowledge of disease processes, and accounting statements for preventative diagnosis and drug targeting. Dysregulation of cellular metabolism plays a key role in cancer development. Therefore, metabolomics can be invaluable in early cancer diagnosis, medical intervention, and cancer treatment evaluation. Many metabolomics research relies on highly sensitive platforms and throughput mass spectrometry platforms. The development of several mass spectrometry (MS) methodologies in recent years has contributed to discovering metabolites associated with cancer. Colorectal cancer (CRC) is the most diagnostic cancer around the world. It ranks 3rd in China in terms of incidence. This paper summarizes recent progress of mass spectrometry (MS)-based metabolomics in CRC.

Keywords: Metabolomics, Colorectal cancer, Mass spectrometry, Biomarkers

Introduction

Colorectal cancer (CRC) is common cancer as well as the third leading cause of mortality around the world, and its incidence is increasing in China [1]. CRC is a multifactorial disease with several associated risk factors, including genetics, environment, and lifestyle [2]. The average incidence of CRC is still quite high, despite advances in understanding mechanisms. A more precise mechanism analysis is required for screening methods and drug treatment in CRC research [3]. The use of metabolomics can thus be an integral part of the discovery of useful biomarkers and the investigation of accurate treatments for CRC.

Metabolomics is a new research area in omics science that employs advanced analytical techniques to monitor and evaluate metabolite alterations in patients following medical/external treatment or disease conditions [4]. Metabolomics technologies comprehensively analyzed low molecular weight compounds, such as small peptides, vitamins, and protein cofactors generated by metabolism in biological fluids. Recently metabolomics gained more attention in the field of biomarker discovery; however, unlike other omics technologies, such as transcriptomics, genomics, and proteomics. It could be more accurate in describing multifactorial disease because it illustrates gene-environment interactions [5]. MS techniques are widely used for both target and untargeted metabolomics research. MS technologies can identify organic and inorganic molecules using high sensitivity and specificity while requiring small specimens [6].

Tan and colleagues analyze serum metabolite profiles using GC-TOF-MS and UPLC-Q-TOF in patients with colorectal carcinoma and healthy individuals. In contrast to healthy individuals, colorectal patients showed distinctive metabolic signatures in the urea cycle, TCA cycle, fatty acids, glutamine, and gut flora metabolism. A different profile of differential metabolites was identified from OPLS-DA results in which 2-hydroxybutyrate, 2-oxobutyrate, and 2-aminobutyrate, showed increased levels. In contrast, levels of indoxyl, indoxyl sulfate, and N-acetyl-5-hydroxytryptamine decreased in colorectal cancer patients [7]. Another UPLC-MS-based study by Clos etal. Showed differences in sphingolipids and cholesteryl esters in patients with CRC stool samples [8]. Another research study reported 154 metabolites such as amino acids glycolysis, urea cycle, tricarboxylic acid (TCA) cycle, and polyamine pathways; with the progression of cancer, the concentration of these metabolites gradually increased [9].

Discussion

Numerous research has been conducted to investigate the molecular mechanism of CRC from the perspective of intestinal flora and the compounds they produce, such as (glycolysis, tricarboxylic acid (TCA) cycle, amino acids, bile acids, urea cycle, and polyamine pathways) for drug target intervention. According to various studies, CRC is linked to inflammation and an alteration of the gut flora. Many microbiota-derived metabolites have been associated with CRC, and the discovery of biomarkers derived from microbiota metabolomes is a hot area of Research. Existing research has been focused on discovering new biomarkers. While the complete mechanism for the generation of markers and their diagnostic value still remains unclear. A combination of different experimental techniques such as Multiomics technologies, for example, genomics, proteomics, and metabolomics, are helping us to gain deeper insight into cancer and accelerate antitumor drug development.

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ADVANCES IN THE TREATMENT OF DIABETIC COMPLICATIONS

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Abstract. Diabetes mellitus (DM) is a metabolic disease caused by deficiency of insulin secretion or dysfunction of insulin action, and is characterized by hyperglycemia. Diabetes is a common chronic disease, its harm is not the diabetes itself,but due to complications caused by abnormal blood sugar.In this paper, the prevention and treatment of diabetic complications such as retinopathy, renal complications, gastroparesis and so on were reviewed in order to provide reference for the clinical treatment of diabetic complications.

Keywords: diabetic, retinopathy , renal complications , gastroparesis

Complications of diabetes is a chronic diseases caused by the gradual development of diabetes mellitus, including the eyes, nerves, blood vessels, heart and other tissues. With the continuous progress of modern medicine, a large number of clinical studies have been conducted on the prevention and treatment of a series of complications caused by diabetes, such as retinopathy, kidney complications and gastroparesis, and some research results have been achieved, which are summarized as follows in this paper.

1 Treatment of retinopathy

Diabetic retinopathy (DR) is a diabetic complication mainly characterized by microvascular lesions. Severe microvascular lesions can also lead to blindness[1]. The literature review shows that the main pathogenesis of DR is related to the inflammatory response caused by oxidative stress, apoptosis, and the changes of growth factors and hormones. TCM monomeric (chlorogenic acid), single medicine (Sanqi , Puhuang, pueraria root, wolfberry, etc.)and Chinese patent medicine (ligustrazine injection, Furongtongmai capsule, Qiju Dihuang Pill, etc.) can provide beneficial supplements for the treatment of DR[2].

2 Treatment of renal complications

Diabetic kidney disease (DKD) is chronic kidney disease (CKD) caused by microvascular changes in the kidney under the condition of diabetes mellitus (DM), and is the most common microvascular complication of DM. With the progression of the disease, it can eventually progress to end-stage

renal disease (ESRD). Single medicine (Astragalus, tripterygium, Pueraria, salvia miltiorrhiza, etc.) and Chinese patent medicine (Liu Wei Dihuang Pill, Zhenwu Decoction, Shenqi Pill, etc.) can provide beneficial supplements for the treatment of DKD, and strengthen multi-factor intervention, including RAAS blocking, blood pressure and blood sugar control, and smoking cessation, which can help prevent the development of DKD [3].

3 Treatment of gastroparesis

Diabetic neuropathy is one of the most common chronic complications of diabetes [4-5]. In TCM treatment, the symptoms of diabetic gastroparesis can be alleviated or eliminated and the prognosis can be improved by means of TCM dialectical classification, acupuncture treatment, acupoint injection, drug enema, traditional Chinese medicine hot compress, massage and so on. Traditional Chinese medicine has a variety of treatment methods and has certain advantages in the treatment of this disease. However, the current research evidence level is relatively low, there is a lack of high-quality, large sample and multi-center clinical research data, and the research on the mechanism of action is not deep enough. Therefore, we should continue to think, verify and innovate in future clinical practice. Provide optimized diagnosis and treatment plan and solid and credible research evidence for the treatment of diabetic gastroparesis by traditional Chinese medicine [6].

Conclusion

Through the study on the prevention and treatment of diabetes complications, it can be found that although diabetes complications can not be completely cured, but according to the specific type of diabetes complications can be effectively treated with appropriate drugs to alleviate the symptoms of Complications of diabetes,Thus reducing the pain of patients and improve the quality of life.

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EXPERIMENTAL STUDY ON A-GLUCOSIDASE ACTIVITY

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Abstract. In this paper, the activity of α-glucosidase was determined by PNPG method in vitro. The Michalis-Menten equation was fitted by Origin 2021, and the kinetics of α-glucosidase was evaluated by the formation rate of PNP. The results showed that the maximum enzyme activity Vmax=1356.30μM/min/mM α-glucosidase, Michaelis constant Km=0.24mM, which provided a basis for subsequent enzyme inhibition activity research.

Keywords: α-glucosidase, diabetes, PNPG method, enzyme activity

Diabetes is a metabolic disease characterized by abnormal glucose levels. At present, the global diabetes is gradually rising, is expected to 2030, the number of diabetic patients will reach 578 million cases. Insufficient insulin production or insulin resistance can disrupt normal glucose homeostasis, leading to hyperglycemia. Chronic hyperglycemia can lead to serious complications, including nerve injury, cardiovascular disease and renal failure. Diabetes can be divided into two types:

type I diabetes (T1DM) and type II diabetes (T2DM) [1]. Among diabetic patients, 5-10% are T1DM patients. The prevalence of T2DM is about 90 %, and it will reach 592 million by the end of 2035. Such patients are insensitive to insulin receptor (IR), which can lead to chronic hyperglycemia, low-grade inflammation, and dyslipidemia[2].

α-glucosidase is widely found in organisms. It is the main glucose metabolism enzyme in the human body. It is closely related to blood glucose level and blood lipid level. It is one of the main enzymes that cause postprandial blood glucose elevation. An effective treatment for T2DM-related hyperglycemia is targeted inhibition of α-amylase and α-glucosidase. These enzymes can catalyze starch hydrolysis in the intestine and are key enzymes in the process of blood glucose metabolism. Therefore, it is of great significance to find a more efficient method for the determination of α-glucosidase activity.

Objective

To explore the in vitro activity of α-glucosidase and obtain a more efficient method for the determination of α-glucosidase activity.

Materials and methods

Liquidambaric acid (98%), α-glucosidase (From yeast), 4-nitrophenyl-α-D-glucopyranoside (PNPG), 4-Nitrophenol (PNP), sodium carbonate anhydrous, sodium phosphate dibasic and potassium phosphate monobasic were purchased from Shanghai Yuanye Biotechnology Co., Ltd., China. Dimethyl sulfoxide was purchased from Xilong Chemical Co., Ltd. PNPG method was used to determine the activity of α-glucosidase in vitro, and the activity of α-glucosidase was determined by referring to the method of Ohta et al. and slightly modified[3]. The specific operation steps were as follows: 168μL PBS buffer and 2μL α-glucosidase (2U/mL) were added to the reaction hole, and preincubated at 37°C for 10min. After preincubation, 30μL of PNPG (0.2, 0.5, 1.0, 2.0, 5.0, 10, 20mM) solution was added. The microplate reader ABS mode was used to incubate at 405nm for 30min, and the absorbance was detected by kinetics. The reaction hole without α-glucosidase was used as a blank to obtain the absorbance of the product PNP.

Results and discussion

The absorbance of three groups of independent tests under seven concentration gradients of 0.2-20mM PNPG was recorded and substituted into the PNP standard curve. The concentration of PNPG was used as the abscissa, and the formation rate of PNP was used as the ordinate to draw the Michaelis-Menten curve. Each point represents the average±SD of the three independent tests. The Michalis-Menten equation was fitted by Origin 2021, and the kinetics of α-glucosidase was evaluated by the formation rate of PNP. The results showed that the maximum enzyme activity Vmax=1356.30μM/min/mM α-glucosidase, Michaelis constant Km=0.24mM.

A-glucosidase plays a very important role in the digestion and absorption of carbohydrates and postprandial blood glucose. Taking α-glucosidase inhibitors is one of the preferred methods for the treatment of type II diabetes[4-6]. The determination of α-glucosidase activity by appropriate methods has guiding significance for subsequent enzyme inhibition experiments.

Therefore, this method can be successfully used to determine the activity of α-glucosidase without providing a basis for subsequent enzyme inhibition activity.

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STUDY ON A-GLUCOSIDASE ACTIVITY BASED ON PNPG METHOD

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Abstract. In this study, the activity of α-glucosidase was determined by PNPG method, and the enzyme activity of α-glucosidase was investigated under the conditions of temperature 37°C; enzymatic reaction system pH 6.0; substrate concentration 10 mmol•L-1. The results showed that the activity of α-glucosidase was better under this condition, and Vmax = 1.57mM/min/mM α-glucosidase and Km = 0.23mM.

Keywords: α-Glucosidase; PNPG; Diabetes; Enzyme Activity

Diabetes mellitus (DM), a metabolic disease affecting millions of people around the world, is one of the three major chronic diseases that endanger human health. It is characterized by high blood glucose levels[1-3]. The management of DM is mainly to increase exercise and control blood sugar to prevent the deterioration of diabetes and other complications[4]. If the blood glucose control of DM patients is poor, it is likely to lead to cardiovascular disease or other diabetes complications, and deepen the physical and economic burden of patients. one of the main strategies for the treatment of DM is to reduce postprandial blood glucose levels, and α-glucosidase is mainly related to gastrointestinal carbohydrate decomposition and glucose absorption function[5]. It can indirectly inhibit the hydrolysis of carbohydrates by inhibiting α-glucosidase in the body, reduce the absorption of monosaccharide substances, and thus reduce blood glucose.

Objective

In order to provide preliminary experimental research for screening natural α-glucosidase inhibitors from traditional Chinese medicine, postprandial hyperglycemia was controlled by controlling α-glucosidase to control diabetes and its complications.

Materials and methods

4-Nitrophenol, phosphate buffer saline(PBS), 4-nitrophenyl-α-D-glucopyranoside (PNPG), α-glucosidase (Yeast) (100 U/mg) and all chemicals were obtained from Shanghai Yuan Ye Biological Technology Co., Ltd. (Shanghai, China). Multifunctional microplate reader (SpectraMax M2) was obtained from Molecular Devices

The absorbance of PNP solution with different concentration gradients was measured by a multifunctional microplate reader at a wavelength of 405 nm, and the PNP standard curve was obtained. With PNPG as the substrate, the absorbance of the produced colored substance was measured under the action of α-glucosidase, and the activity of α-glucosidase was expressed by the rate of PNP produced.

Results and discussion

In this study, the activity of α-glucosidase was determined. The results showed that Vmax = 1.57 mM / min / mM and Km α-glucosidase = 0.23mM. After the addition of α-glucosidase, the reaction with the substrate produced a colored substance, and the absorbance in the reaction system increased, and the absorbance tended to be stable after a period of time. The results showed that the activity of α-glucosidase was good, which could be applied in the subsequent inhibition research experiments, and provided experimental research for the search of α-glucosidase inhibitors.

This study provides preliminary experimental research for screening natural α-glucosidase inhibitors from traditional Chinese medicine. It can also predict the structure-activity relationship and mechanism of action of inhibitors and α-glucosidase through computer research, and verify from multiple perspectives that natural active ingredients can be used as hypoglycemic drugs for clinical use.

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APPLICATION PROSPECT OF TRADITIONAL CHINESE MEDICINE IN THE TREATMENT OF LEUKEMIA IN CHINA AND RUSSIA

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Abstract. This paper introduces the etiology theory of leukemia in modern TCM and the application prospect of TCM in the treatment of leukemia in China and Russia.In the process of in-depth research of traditional Chinese medicine, Chinese scholars put forward new leukemia causes in addition to the traditional internal and external causes, and innovatively applied multiple prescriptions to the treatment of leukemia, and achieved remarkable curative effect. The application of traditional Chinese medicine in leukemia has provided new possibilities for the treatment of leukemia in China and Russia. The clinical data and treatment plans for the treatment of leukemia in Russia in recent years can also help the development of both countries in the field of leukemia.

Keywords: Leukemia, Chinese medicine,pathogeny, Russia, treatment methods

Acute myeloid leukemia is a hematopoietic malignancy where hematopoietic stem progenitors undergo differentiation arrest, impaired apoptosis, and malignant proliferation at different stages of the differentiation process. It is one of the health problems that affect the physical and mental health of the Chinese and Russian people. With the development of modern science, Chinese medicine tries to explain the cause of leukemia from a new perspective, and tries to apply traditional Chinese medicine in the treatment of leukemia, which has achieved good response in the clinical treatment. This has been a good reference for the medical cooperation between China and Russia. In the past 27 years, the use of arsenic and all-trans-retinoic acid in Russia has had a very good therapeutic effect, this also reflects the great application prospect of TCM in the field of leukemia.

Objective

With the development of modern pharmacology, traditional Chinese medicine has a new development in the etiology, mechanism and treatment of leukemia. It has a good effect in reducing the toxic side effects caused by chemotherapy, removing residual leukemia cells, reversing the multi-drug resistance of leukemia, prolonging or preventing the recurrence of leukemia. Therefore, this paper expounds the TCM causes and related treatment methods of leukemia, and summarizes the theoretical background of TCM participation in the treatment of acute leukemia, provide new possibilities for the treatment of leukemia in China and Russia.

Materials and methods

Review ancient documents and collect relevant case information, and collect and sort out relevant papers in recent years.

Results and discussion

With the development of modern science, Chinese scholars combined with modern science on the onset of leukemia causes made a new interpretation, including wide acceptance of physical genetic etiology theory and the theory of poison evil invasion, they decided that the cause may be associated with individual genetic inheritance and mutation natural virus infection, physical radiation, drugs or chemical toxicity.Some scholars are also in support of the theory of bone marrow pathogenesis, the theory of cold and mutual resistance. The new theory also has a new direction of treatment, either from the theory of poison, or from the right and adjust the qi and blood; or from the detoxification of the blood and the blood; or from the syndrome differentiation of the disease.

These new perspectives explore more possibilities for China and Russia in the treatment of leukemia in China. As early as 1973, China first reported arsenic (AS2O3) for acute promyelocytic leukemia, and achieved significant curative effect. In recent years, the use of non-chemotherapy methods of arsenic trioxide and all-trans-retinoic acid in the treatment of leukemia in Russia has significantly changed the toxicity and the duration of treatment, with very good results. This confirms the great promise of TCM in the field of leukemia research.The Russian cooperation group is the first organization to start to include pregnant women with acute leukemia in clinical trials. The balanced clinical suggestions and programs in the treatment of leukemia can also provide data support for the applied research of the two countries and facilitate the research progress of TCM in the field of leukemia in the two countries.

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STUDY OF THE THERAPEUTIC METHODS OF APPLYING HERBS IN THE TREATMENT OF SKIN DISEASES IN RUSSIA IN CONJUNCTION WITH TRADITIONAL CHINESE MEDICINE

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Abstract. This article focuses on the creative use of Chinese herbs in the treatment of dermatologic diseases in the context of the combination of Russian medicine and traditional Chinese medicine in the application of Chinese herbs in the treatment of diseases, summarizing the combined application of Russian and Chinese traditional medicine in the treatment of vitiligo, pyoderma, acne, and other common dermatologic diseases.

Keywords: Skin diseases, Chinese traditional medicine, Russia, Herbal medicine, Treatments

Skin disease is a kind of disease that occurs on the surface of the body, and a variety of skin diseases are easy to repeat, itching obviously, seriously affecting work, study and life. Chinese medicine is a traditional medicine with ancient Chinese philosophy as its guiding ideology, which is different from Western medicine and has an independent knowledge system and diagnostic and treatment modes, and the application of Chinese herbs to treat skin diseases is an important presence in the treatment methods of traditional Chinese medicine, and Russia, which borders China, is the most susceptible to the influence of Chinese medicine culture.Under the influence of the Russian Ministry of Health's leadership experts' understanding of Chinese medicine and the Belt and Road Initiative, Chinese medicine has gained a certain development status in the Russian medical community and plays an important role in the treatment of dermatologic diseases in Russia. In this article, the application of Russian and Chinese medicine combined in the treatment of dermatologic diseases will be described.

Objective

This article focuses on the combination of Russian and Chinese traditional medicine in the treatment of common dermatologic diseases for clinical reference.

Materials and methods

Therapeutic use of Hypericum perforatum on vitiligo:It has the effect of clearing away heat and inducing dampness, subduing swelling and promoting lactation, and can be used externally and internally for the treatment of vitiligo after concoction.According to the process of making the finished product Hypericum oil, a viscous reddish brown liquid, with gauze soaked with Hypericum oil on the affected area for 30min, sun exposure, the first sun exposure should not be more than 2min, with the increase in the course of treatment, sun exposure time can be gradually extended to 30min, but not more than 30min.This method has been clinically proven to be able to significantly improve the symptoms of vitiligo patients such as white patches on the skin, itchy skin and other symptoms of effective treatment for patients.

Aloe arborescens on pyoderma:It has anti-inflammatory and analgesic properties, diuretic and detoxification and strong bactericidal effects on gangrene and sores, can enhance human immunity by enhancing phagocytosis of macrophages and thereby reducing the level of the inflammatory mediator IL-1. Fresh extracts of Aloe Mullein leaves applied to the affected area for 6-8h and then wrapped in a bandage can be used to treat pyoderma. This method has been clinically used to effectively alleviate the symptoms of pustules, nodules and ulcers that appear in patients, and to effectively reduce their pain, some of which can achieve a curative effect.

Nettle for acne: In Russia, nettle is commonly used in the treatment of chronic skin diseases such as acne, with anti-inflammatory, hemostatic, diuretic, pro-digestive, and estrogen-like effects, of which the anti-inflammatory and estrogen-like effects are the basis for the treatment of acne. The method of use is to squeeze juice from fresh nettle and take one cup 1h after breakfast, one cup of dandelion juice after 1h interval, and one cup of celery juice after another 1h, once every 3 days. This method in clinical use can significantly improve the mild patients acne, pimples and other skin lesions, the more serious see nodules, cysts need to be combined with antibiotics to achieve therapeutic effect.

Results and Discussion

The use of traditional herbal medicine in Russia is not only limited to dermatological diseases. Due to its price advantage over Western medicine and its low side effects, more and more people are choosing herbal medicine to cure their diseases. However, due to the promotion and development of traditional Chinese medicine in Russia there are still certain restrictions, many people mistakenly believe that herbs are purely natural substances, can be used at will, but due to the strong pharmacological effects of herbs, improper use can easily cause side effects, attention should be paid to the use of professional doctors should be given to the guidance of the use of medication, so as to make the traditional medicines maximize the effectiveness of the effectiveness of the drug and reduce the toxicity.

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PROTECTIVE EFFECT OF PHENYLPROPIONAMIDES IN THE SEED OF *CANNABIS SATIVA* L. ON MICE WITH PARKINSON'S DISEASE

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Abstract. Parkinson's disease (PD) is the second most common neurodegenerative disease worldwide. Phenylpropionamides in the seed of *Cannabis sativa* L. have a protective effect on neuroinflammation and antioxidant activity. In this study, the seed of *Cannabis sativa* L. extract containing phenylpropionamides was obtained, and PD animal models were established by intraperitoneal injection of 1-methyl-4-phenyl-1, 2, 3, 6-tetrahydropyridine (MPTP), the rotarod test and pole test results showed that phenylpropionamides improved the motor symptoms of PD model C57BL/6 mice. Nissal staining and TH immunohistochemical results showed that phenylpropionamides protected dopaminergic nerves in the substantia nigra.

Keywords: Parkinson's disease, phenylpropionamides, *Cannabis sativa* L., MPTP, TH

According to epidemiological statistics, Parkinson's disease (PD) is the second most common neurodegenerative disease, it is characterized by a slow and progressive degeneration of dopaminergic neurons in the substantia nigra pars compacta. Current evidence supports that many potential factors such as age, genetic aberrations, or environmentally-derived and endogenous neurotoxins cause the occurrence of PD. The seed of Cannabis sativa L. has been an important traditional medicine since historical times. The seed of *Cannabis sativa* L. is rich in phenylpropionamides, and has significant anti-neuroinflammatory activities, phenylpropionamides attenuated LPS-induced neuronal damage in mice, and cannabisin F can also inhibit the apoptosis of SH-SY5Y Parkinson's disease cell model induced by MPP+, suggesting that phenylpropionamides has potential activity in the treatment of Parkinson's disease.

Objective

To elucidate the pharmacological effects of phenylpropanamide components in the seed of Cannabis sativa L. on Parkinson's disease animal models.

Materials and methods

Continuous reflux method was used to obtain the phenylpropionamides of the seed of Cannabis sativa L. by enrichment with macroporous resin SP850. Male C57BL/6 mice were divided randomly into the following five groups: control group, MPTP (25 mg/kg) group, MPTP plus phenylpropionamides-treated groups (700 and 350 mg/kg) and MPTP

plus levodopa-treated group (100 mg/kg). MPTP was administered intraperitoneally at 25 mg/kg daily for 7 days. phenylpropionamides were orally administered into mice for the same period and then for an additional 17 days during the behavioral tests. Nissl staining and immunohistochemical staining of TH of the SN regions and striatum were performed, and Nissl-positive cells in the neuronal substantia nigra and TH-positive neural fibers in the striatum were detected to evaluate the neuronal loss. The level of TH was measured by Western blot.

Results and discussion

To test the movement coordination ability of the subjects, mice were subjected to the rotarod test and pole test, which assesses the states of central nervous system diseases or drug efficacy. Phenylpropionamides prevent MPTP-induced deficits of motor function in behavioral tests. PD is characterized by the loss of dopaminergic neurons in the SN that projects to the dorsal striatum, the results of Nissl staining and immunohistochemical staining of TH show that phenylpropionamides (700 mg/kg) increased the number of Nissl-positive neurons and TH-positive neurons. Western blot results show that compared with MPTP-injected mice, phenylpropionamides (700 mg/kg) treatments in MPTP-injected mice recovered the protein levels of TH.

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EFFECT OF ASTRAGALI RADIX EXTRACT ON IMMUNE FUNCTION IN IMMUNOSUPPRESSED MICE

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Abstract. This study aimed to investigate the regulation of different doses of Astragali Radix extract on immune function in immunosuppressed mice.Immunosuppression by intraperitoneal cyclophosphamide(CTX),then gavage different doses of Astragali Radix extract. After the test, the indexes of mice immune system were determined. The results showed that different doses of Astragali Radix extract could improve the spleen index, serum IL-2content, the ratio of CD3 positive T lymphocytes and CD20 positive B lymphocytes in immunosuppressed mice, The high-dose group showed significant effects, with a significant difference compared to the immunosuppressive group ($P<0.01$), and a significant difference compared to the low-dose group ($P<0.05$). In conclusion, Astragalus extract can promote the proliferation of related lymphocytes and the release of cytokines in immunosuppressed mice, thereby enhancing the Humoral immunity and cellular immunity of mice and the promoting effect is dose-dependent.

Keywords: Astragali Radix, immunosuppression, immunohistochemistry, immune function

Astragali Radix, the dried root of Astragalus membranaceus (Fisch.) Bge. var. mongholicus (Bge.) Hao or A. membranaceus (Fisch.) Bge, is rich in medicinal active ingredients, including polysaccharides, flavonoids, saponins, and a variety of trace elements. It has been shown that Propolis flavonoids[1-2],Cirsium japonicum DC[3], Bamboo leaf flavone[4] has important immunomodulatory activities,can improve, restore and promote the immune function of immunosuppressed mice by promoting the proliferation and maturation of lymphocytes in immune organs.

Objective

This study aims to explore the regulation of Astragali Radix extract on the immune function of immune suppression mice and the influence of damaged immune organ function, explore the role of the immune regulation activity and whether there is time and concentration dependence, to fully utilize and develop Astragali Radix resources, and find the safe and reliable clinical use of traditional Chinese medicine.

Materials and methods

SPF grade C57BL/6 strain male mice with weight

of 18~22g were purchased from Liaoning Chang sheng Biotechnology Co., Ltd. and raised in the animal room of School of Pharmacy, Heilongjiang University of Chinese Medicine. The fresh root of A. membranaceus (Fisch.) Bge. var. mongholicus was purchased from the medicinal materials base of Jagedaqi Biotechnology Co., Ltd.

Accurately weigh 60.0g of prepared Astragali Radix powder and prepare 100ml of gavage medication using water extraction method. The concentration of the prepared solution is 0.6g/ml (raw medicine).

The mice of group1 and group 2 were gavaged with 0.2ml of 30μg•g-1BW and 60μg•g-1BW Astragali Radix extract 10 consecutive days.

Collect blood from mice after the experiment using routine blood tests, blood biochemical examination and ELISA and immunohistochemistry.

Results and discussion

After administration, WBC, RBC, HGB, MCHC, RDW, MPV, PLT, HGB, HCT, MCV, MCH, NEUT and the percentages increased in both experimental groups, with significant differences compared to the control group (P<0.01). The difference between the low-dose group and the high-dose group was significant (P<0.05)..

Serum ALT and AST levels were increased in the three cyclophosphamide injection groups, while GLU, TP, ALB and ALP decreased significantly. After the administration, serum ALT and AST levels decrease and the levels of GLU, TP, ALB, and ALP increased. compared with group 1 and group 2, AST, GLU and TP were significantly different (P <0.01).

The content of IL-2 in serum of mice decreased significantly. After the administration, the IL-2 contents in both experimental groups increased to varying degrees and there was a significant difference between group 1 and group 2 (P<0.05).

IgA, IgG and IgM of mice in the immunosuppressed group were lower than that of the blank control group and both experimental groups, showing significant difference between group 1 and group 2. After the administration (P <0.05).

The ratio of CD3 and CD20 positive lymphocytes in the spleen of the immunosuppressed group was significantly lower than that of the blank control group (P <0.01), After administration, the ratio of CD3 and CD20 positive lymphocytes increased, and there was a significant difference between Test Group 1 and Test Group 2 (P<0.05).

Based on the above results, Astragali Radix extract can significantly enhance the immune function of immunosuppressed mice, which is achieved by promoting the proliferation and maturation of immune active cells (spleen T and B lymphocytes) in the relevant immune organs.

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EFFECT OF RETENTION ENEMA WITH TRADITIONAL CHINESE MEDICINE ON INTESTINAL FLORA IN PATIENTS WITH SEQUELA OF PELVIC INFLAMMATORY DISEASE

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Abstract. Using IllumInaMISeq high-throughput sequencing platform, the fecal samples of patients with pelvic inflammatory disease sequelae who were admitted to the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine and met the inclusion criteria were analyzed, and compared with those treated by retention enema with traditional Chinese medicine and healthy patients.According to the analysis, retention enema with traditional Chinese medicine can effectively regulate the intestinal flora structure of patients with pelvic inflammatory disease sequelae, which may be one of the possible mechanisms of retention enema with traditional Chinese medicine in treating pelvic inflammatory disease sequelae.

Keywords: sequelae of pelvic inflammatory disease,intestinal flora

Sequelae of pelvic inflammatory disease (SPID) mainly refers to a group of left-over lesions caused by inflammatory lesions in female upper reproductive tract after failing to get correct and

effective treatment.It takes persistent pain and discomfort in the lower abdomen, lumbosacral pain and recurrent inflammation as the main symptoms, and even causes secondary infertility, ectopic pregnancy and other diseases.At present, the operation and antibiotic treatment of western medicine for this disease have not achieved good results, due to the long-term large number of antibiotics caused by drug resistance and the trauma after surgery is difficult to recover and even cause new problems.Traditional Chinese medicine has a lot of experience in treating this disease, and retention enema with traditional Chinese medicine has become a common treatment.

Chinese medicine sparing enema not only has high operability, but also reduces the first pass effect of liver after rectal administration. At the same time, the drug directly acts on the disease site, and the curative effect is naturally affirmed.

Objective

To explore the therapeutic mechanism of retention enema with traditional Chinese medicine for patients with sequelae of pelvic inflammatory disease from the perspective of intestinal flora diversity.

Materials and methods:

28 patients and 10 healthy controls who met the inclusion criteria of SPID in the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine in the six months were collected. The patients were treated by rectal administration of traditional Chinese medicine, which was the clinical experience prescription of Professor Cong Huifang.At the same time, fecal samples of patients before and after treatment and control group were collected, and three groups of intestinal samples were analyzed. This provides a possible direction for exploring the therapeutic mechanism of retention enema with traditional Chinese medicine on SPID.

Results and Discussion

Population diversity study in the V3-V4 variable region of the 16S rDNA gene in the three samples of this experiment. Comparcomparative analysis of the ACE index, Chao1 index, Shannon index and Simpson index showed that the colony structure, diversity and abundance of SPID patients were significantly different from healthy people, and the comparison between all groups was statistically significant.In particular, the Firmicutes in the phylum level was significantly up-regulated ($P < 0.05$), and the Bacteroidetes was significantly downward ($P < 0.05$). The obvious correction of these two genera indicates that the structure and diversity of intestinal flora were significantly changed after treatment. It shows that the preservation of enema can change the structure of microflora in pathological state to normal human intestinal flora by affecting the number and distribution of dominant bacterial genera.

This study can show that the number and diversity of intestinal flora are closely related to the body health status. The treatment of SPID by preserving enema with traditional Chinese medicine can not only achieve better efficacy in clinical application, but also affect the metabolism and action of related drugs by intervening in intestinal metabolism flora, and finally achieve the purpose of treating sequelae of pelvic inflammatory diseases.

Therefore, this experiment shows that retention enema with traditional Chinese medicine has a certain regulatory effect on the disorder of intestinal flora in patients with SPID, which may be one of its mechanisms.

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