Clinical Teaching Analysis of TCM Treatment of Cardiovascular and Cerebrovascular Atherosclerosis

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Abstract: Cardiovascular and cerebral atherosclerosis is the common pathological basis of various cardiovascular and cerebrovascular diseases. It is a chronic pathological process involving the large and middle arteries, and the carotid artery is one of the most vulnerable large blood vessels. Carotid atherosclerosis is one of the risk factors for cerebrovascular events such as cerebral infarction. Therefore, based on the characteristics of TCM professional skills, the psychological characteristics of learners' professional skills learning, and based on the characteristics of TCM thinking, the clinical teaching of TCM treatment of cardiovascular and cerebrovascular atherosclerosis was constructed. By changing the traditional Chinese medicine clinical teaching mode to a single type of guidance, if necessary, plus a few wall charts, models and other teaching aids to improve the clinical teaching quality of Chinese medicine treatment of cardiovascular and cerebrovascular atherosclerosis. This teaching method has shortened the training period of TCM technical talents in order to adapt to the needs of the TCM business talent market. It is hoped that the use of this research will add to the teaching reform of clinical teaching of Chinese medicine for cardiovascular and cerebral atherosclerosis.

1. Introduction

With the rapid development of economy and society, the number of patients with atherosclerosis-based lesions is increasing year by year. This has become the disease with the highest mortality rate in China. Atherosclerosis (AS) is the most important type of arteriosclerosis. The basic damage is localized plaque thickening of the arterial intima, so we call it atherosclerotic plaque or plaque. The lesions can mainly affect the aorta, coronary arteries, cerebral arteries, renal arteries, large and medium-sized muscle elastic arteries, etc., eventually leading to their stenosis and complete blockage. At the same time, it also causes ischemia, hypoxia, dysfunction and death of these vital organs. Therefore, exploring the clinical teaching of TCM treatment of cardiovascular and cerebrovascular atherosclerosis has become an important link in the prevention and treatment of acute cardiovascular and cerebrovascular diseases. There is no name for atherosclerosis in Chinese medicine. However, according to its clinical manifestations, it can involve diseases such as dizziness, headache, forgetfulness, dementia and chest sputum in traditional Chinese medicine. Traditional Chinese medicine starts from the overall view, and syndrome differentiation and treatment. Most scholars believe that the disease is the evidence of the virtual standard. This virtual is the five internal organs (mainly liver, spleen, kidney three viscera) qi and yin and yang deficiency, the standard is sputum, sputum, heat, poison and so on. Chinese medicine advocates both the treatment of atherosclerosis and the treatment of cardiovascular and cerebrovascular diseases through multiple routes and multiple links, and has fewer adverse reactions, and has a good development prospect and space [1]. This may be related to its unique advantages in resolving and reversing atherosclerotic plaques.

Modern medicine delays arteriosclerosis by dilating blood vessels, regulating blood lipids, anti-platelet aggregation, thrombolysis, intervention, and surgery. However, long-term use of Western medicine can produce toxic side effects and a high recurrence rate. Although surgical
treatment has a certain effect, it is still not fully accepted by patients because of the high risk of surgery and the ineffectiveness of the treatment. Therefore, how to prevent and treat atherosclerosis has become one of the research focuses of the global medical community [2]. It is especially important to analyze the clinical teaching of Chinese medicine for cardiovascular and cerebrovascular atherosclerosis.

Therefore, this study is based on the characteristics of TCM professional skills and the psychological characteristics of learners’ professional skills learning; according to the characteristics of TCM thinking mode, explore the clinical teaching methods of TCM treatment of cardiovascular and cerebrovascular atherosclerosis. By changing the traditional Chinese medicine clinical teaching mode to a single type of guidance, if necessary, add a few wall charts, models and other teaching aids to improve the clinical teaching quality of Chinese medicine treatment of cardiovascular and cerebrovascular atherosclerosis. This shortens the training cycle of TCM technical talents, in order to adapt to the needs of the Chinese medicine business talent market, and to analyze the examples.

2. TCM Viewpoins of Atherosclerosis

The analysis of traditional Chinese medicine on atherosclerosis contributes to the implementation and deepening of clinical teaching of atherosclerosis.

2.1 Analysis of etiology and pathogenesis of atherosclerosis in traditional Chinese medicine

Chinese medicine believes that the cause of the disease is related to factors such as exogenous six kines, diet, and emotional internal injuries. The dietary factors are particularly prominent. The likes of fat and sweet taste, eucalyptus oil endogenous, sputum veins, resulting in poor blood supply. The general genus of the pathogenesis of atherosclerosis is the virtual standard, the viscera, qi and blood are yin and yang deficiency; oyster oil, blood stasis, damp heat, poisonous evil as the standard.

2.2 Chinese medicine understanding of the clinical treatment of atherosclerosis

The clinical research of TCM intervention has increased year by year. According to the basic characteristics of Chinese medicine and the basic characteristics of dialectical treatment, its governance can be roughly divided into: The method of promoting blood circulation and removing blood stasis is represented by the active efficacies of Dan, Taoren Honghuajian and Xuefu Zhuitang; Invigorating the spleen and eliminating phlegm and stasis oil, such as Difutang and Baixie Baixie Tang; Replenishing spleen and kidney method such as Siwutang and Baohe pills; Shugan Bushen method, such as Liuwei Dihuang Pill, Buyang Huanwu Decoction; In the study of Chinese medicine and cardiovascular and cerebrovascular diseases, the theory of “virtual standard” has been recognized by many medical scholars [3]. Years of research have shown that Chinese medicine can treat both the symptoms and the symptoms, has no obvious adverse reactions, and has few side effects, and rarely produces drug resistance. This can stabilize unstable vulnerable plaque and is an effective measure to reduce the risk of clinical tragic events. Make the majority of patients get tangible benefits.

3. Analysis of Clinical Teaching Methods for Treatment of Cardiovascular and Cerebrovascular Atherosclerosis with TCM.

Throughout the development of TCM education, it has mainly experienced ancient teacher education and modern college education. Especially since the founding of the People's Republic of China, the education of the Chinese Medicine Hospital has been unprecedentedly developed, and a large number of outstanding Chinese medicine talents have been cultivated, which has made great contributions to the development of Chinese medicine. With the deepening of higher education research and the continuous development of cognitive psychology, there has also been a new understanding of medical education. This kind of understanding is constantly pushing the reform of
teaching mode. The following analysis of the current more popular teaching models, to find out their characteristics and deficiencies, while exploring the advantages of each teaching model, explore the optimal teaching mode of clinical teaching of cardiovascular and cerebral atherosclerosis in Chinese medicine.

3.1 Teaching analysis of clinical case teaching method in the treatment of cardiovascular and cerebrovascular atherosclerosis with traditional Chinese medicine

Clinical practice teaching is the core of graduate training. In order to cultivate the clinical thinking ability of traditional Chinese medicine for cerebral vascular atherosclerosis, the reform of the implementation of case-based teaching methods can be widely praised by teachers and students. This is also an effective means to improve the clinical thinking ability of graduate students in traditional Chinese medicine. A study of a student-based, well-prepared case-based approach can yield satisfactory results [4]. It is conducive to stimulating students’ subjective initiative, is conducive to promoting the professional development of teachers, and achieving the “common progress of teachers and students.” An analysis of the teaching methods of new clinical practice for developing and implementing traditional Chinese medicine for cardiovascular and cerebrovascular atherosclerosis is shown in Figure 1.

- **Problems in previous clinical practice teaching methods**
  - It is easy to neglect the cultivation of students' self-construction ability of Chinese medicine knowledge. The motivation and interest of learning cannot be fully mobilized, which is not conducive to the strengthening of the thinking ability of Chinese medicine.

- **Case study method**
  - Read relevant famous medical cases, record the ideas and clinical experience of famous doctors, and learn the classic quotations
  - Collect classic cases of traditional Chinese medicine during the training, follow up on time, pay attention to the changes of the disease, summarize the lessons learned
  - Make slides, lesson plans, lectures, and improve various auxiliary inspections (photographable)
  - Students teach the collected clinical cases of Chinese medicine, highlight key points, doubts and difficulties, and interact, ask questions and answer questions, and lead teachers and students to discuss together.
  - The instructor commented on the case of Chinese medicine, such as the method of collecting four diagnoses, the idea of dialectical diagnosis, whether the diagnosis and treatment were proper, and whether the experience grasped the key points.

- **Feasibility and superiority of case teaching method**
  - Through special or typical clinical cases of traditional Chinese medicine cardiovascular and cerebral atherosclerosis, it is possible to guide graduate students to better grasp the theoretical knowledge of TCM.
  - Students can better analyze the symptoms of cases and propose prescriptions and prescriptions to improve students' ability to comprehensively analyze their condition and judgment.

Figure 1. Teaching analysis of clinical case teaching method in the treatment of cardiovascular and cerebrovascular atherosclerosis with traditional Chinese medicine

3.2 Clinical Pathway Teaching Method in the Treatment of Cardiovascular and Cerebrovascular Atherosclerosis

The clinical pathway is a standardized treatment model and treatment program established to standardize medical behavior, reduce variation, reduce costs, improve quality, and guide evidence-based medical evidence and guidelines for a disease. Introducing the clinical pathway concept into the clinical teaching process, and using the clinical path as a platform to organize teaching methods for clinical medical students, it is called clinical path-based teaching method. Due to the limited professional nature of cardio-cerebral vascular atherosclerosis in Chinese medicine, the lack of standardization and standardization has affected the clinical teaching effect of
cardiovascular and atherosclerosis to a certain extent [5]. Therefore, it is particularly important and urgent to try and promote the clinical teaching of traditional Chinese medicine in the clinical teaching of cardiovascular and cerebral atherosclerosis. The results of many studies at home and abroad have suggested that the clinical path-based teaching method can significantly improve the hands-on ability and clinical teaching effect of interns, and is gradually being applied and promoted. Therefore, the clinical path-based teaching method in the treatment of cardiovascular and cerebrovascular atherosclerosis is mainly shown in Table 1.

Table 1. Teaching analysis of clinical path-based teaching method in the treatment of cardiovascular and cerebrovascular atherosclerosis

<table>
<thead>
<tr>
<th>Items</th>
<th>Analysis</th>
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<tbody>
<tr>
<td>Improve clinical teaching results</td>
<td>On the basis of the implementation of the clinical path of traditional Chinese medicine, the teaching plan is formulated based on the characteristics and teaching content of atherosclerosis.</td>
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<td>According to the schedule of the clinical path, the teaching content is integrated into the clinical path, allowing students to directly participate in the diagnosis and treatment of atherosclerosis.</td>
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<td></td>
<td>According to the specific content of the clinical path, focus on cultivating students' practical ability and clinical thinking, thus greatly improving the effect of clinical teaching.</td>
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<td>Innovative clinical teaching model</td>
<td>Based on the four-stage teaching method of TCM clinical path, students can speak freely during the learning process, realize the two-way interaction between teaching and learning, and change passive learning into active learning.</td>
</tr>
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<td></td>
<td>Because of the standardized and standardized clinical path, students have rules to follow and can be relied upon. With a little guidance and training, students can have the ability to learn independently. The teaching model has realized the transformation from instilling knowledge to learning methods.</td>
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<tr>
<td>Cultivate clinical thinking and improve comprehensive ability</td>
<td>Enhance the systematic nature of clinical teaching and standardize the process of clinical teaching</td>
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<td>TCM diagnosis and treatment for students to understand the common diseases more systematically</td>
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<td></td>
<td>It is conducive to students to form a systematic TCM clinical knowledge structure and cultivate correct TCM clinical thinking mode</td>
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<td>Strengthened students' rational and perceptual knowledge of TCM clinical diagnosis and treatment activities.</td>
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3.3 Case-based clinical teaching method in the treatment of cardiovascular and cerebrovascular atherosclerosis

Chinese medicine treatment of cardiovascular and cerebrovascular atherosclerosis is a very practical discipline. It requires practitioners to have strong emergency response capabilities and strong resilience. In the clinical teaching practice of TCM cardio-cerebral vascular atherosclerosis, case-based TCM clinical teaching methods can be used to support the traditional Chinese medicine simulation classroom and ward, so that advanced teaching theory and teaching methods can be combined to carry out cardiovascular and cerebrovascular diseases [6]. Clinical teaching reform of atherosclerosis. The specific implementation process of the case-directed clinical teaching method in the treatment of cardiovascular and cerebral atherosclerosis is shown in Figure 2.
3.4 Mini clinical exercise evaluation in the treatment of cardiovascular and cerebrovascular atherosclerosis

Mini-Clinical Evaluation Exercise (Mini-CEX) is a resident clinical ability assessment method developed and recommended by the American College of Internal Medicine. Mini-CEX enhances the scientific ability of clinical ability assessment and fully mobilizes the enthusiasm, initiative and creativity of physicians. Mini-CEX is an easy-to-use, low-cost, high-reliability evaluation tool. It can display the performance of students in the clinical practice of Chinese medicine treatment of cardiovascular and cerebrovascular atherosclerosis in a more intuitive way, and make reasonable evaluation and feedback [7][8]. This study believes that Mini-CEX can improve students' clinical ability, doctor-patient communication ability and self-learning ability in the process of Chinese medicine treatment of cardiovascular and atherosclerotic atherosclerosis.


As mentioned above, this study has briefly introduced several methods for the clinical teaching of traditional Chinese medicine in the treatment of cardiovascular and cerebral atherosclerosis. Combined with the specific actual situation of the intern in this hospital, this part takes the case-introduction teaching method as an example to explore the effect of case-introduction teaching method (CBS) combined with simulation operation in the clinical teaching of Chinese medicine for cardiovascular and cerebrovascular atherosclerosis.

4.1 Research object

The 7-year clinical students who were internship in the cardiovascular clinic of our hospital from 2017 to 2018 were selected. The internship time of each student was three months. 50 intern students were randomly included in the experimental group or the control group, with 25 in each group. The experimental group used CBS combined with the simulation operation method to carry out clinical teaching, and the control group implemented the traditional clinical teaching method. After two years of systematic medical basic knowledge, the two groups of students had no statistically significant difference in gender ratio, age, love of Chinese medicine for cardiovascular...
and cerebrovascular atherosclerosis, and basic knowledge scores. $P>0.05$), the dates was comparable.

4.2 Teaching steps

The steps of clinical teaching of TCM treatment of cardiovascular and cerebrovascular atherosclerosis are shown in Figure 3.

![Figure 3. Steps in clinical teaching of Chinese medicine for cardiovascular and cerebrovascular atherosclerosis](image)

4.3 Intern operational score and min-cex evaluation results and discussion

The operation examinations for the auxiliary examination and diagnosis of carotid atherosclerosis in the two groups were scored strictly according to the score sheet. The results showed that the scores of the experimental group were significantly higher than those of the control group ($P<0.05$). During the examination, the humanistic care, operation norms and proficiency of the experimental group were significantly better than those of the control group. At the same time, Min-cex results showed that the scores of the experimental group were better than the control group, and the difference between the two groups was statistically significant ($P<0.05$). Among them, the judgments on syndrome distribution, symptom description, TCM symptomatic medication, and prognosis development are outstanding, as shown in Table 2.

<table>
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<th>Evaluation projects</th>
<th>Experimental group</th>
<th>Control group</th>
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<tr>
<td>Theoretical assessment</td>
<td>85.16±6.21</td>
<td>74.89±2.49</td>
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<tr>
<td>Operational score</td>
<td>92.57±1.65</td>
<td>76.59±3.73</td>
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<tr>
<td>Min-cex scores</td>
<td></td>
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<tr>
<td>Judgment distribution</td>
<td>8.17±1.63</td>
<td>6.12±0.83</td>
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<tr>
<td>Symptom description</td>
<td>10.16±0.97</td>
<td>8.54±1.91</td>
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<tr>
<td>TCM symptomatic medication</td>
<td>9.98±2.16</td>
<td>7.69±1.44</td>
</tr>
<tr>
<td>Prognosis development</td>
<td>7.64±1.65</td>
<td>5.23±1.16</td>
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The experimental results show that after one or two CBS teaching, some students in the experimental group will take the initiative to inquire about the main complaint of the next disease, and read the data to prepare various problems. During the internship period, the experimental group students are relatively active, actively simulating the consultation, and the students complement each other, and at the same time can drive the enthusiasm of some introverted students; Students actively think about various issues, boldly question, can integrate theory and practice, and further enlighten and broaden clinical thinking. After the case discussion, the students in the experimental group were able to participate, and further deepened their understanding and understanding of the disease; On the contrary, the traditional teaching interns have a more boring teaching atmosphere and feedback from teachers.

5. Conclusion

Practice has shown that the use of problem-based teaching methods (PBL), case-directed (CBS)
TCM teaching, and mini-clinical exercises to evaluate the clinical teaching of cardiovascular atherosclerosis in Chinese medicine can make the theory and practice more closely linked, and it can also improve students' clinical thinking and adaptability, and help students master the knowledge [9]. These teaching methods are still in the process of exploration. Teaching skills, case selection and how to guide students more effectively need to be further refined and refined. Therefore, in the future practice of TCM emergency teaching, a lot of experience accumulation is needed to form a more complete teaching system. The results of the case study of this study show that the use of the case-introduction teaching method in the teaching process of cardiovascular interns can improve the performance of students and more comprehensively and truly reflect the learning results. At the same time, it is more able to meet the needs of students, but it also poses greater challenges to teaching resources.

References


