Exploration on the therapeutic ideas and applications of hypertension based on the academic thoughts of Zhang Xichun and Shi Jinmo in treating cerebral congestion

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Abstract: Hypertension is a high incidence of cardiovascular and cerebrovascular system. At present, western medicine treatment has dependence and side effects. Chinese medicine can not only effectively reduce blood pressure, but also improve clinical symptoms through overall regulation. By summarizing and analyzing the cerebral congestion syndrome in Medical Zhongzhongshenxilu and the treatment of hypertension in Shi Jinmo's Complete Medical Works, this paper finds that both doctors believe that hypertension is most closely related to the liver, and "blood rises to the brain" is the key to the disease. We sorted out the academic thought of treating hypertension with the methods of regulating liver, flattening liver, clearing liver, soothing liver and tonifying liver. And this method was applied to clinical practice, which has achieved satisfactory therapeutic effects.

1. Introduction

High blood pressure is a systemic artery pressure as the main performance of cardiovascular syndrome \cite{1}, is blood pressure [systolic blood pressure usually 140 mmHg or higher and/or diastolic blood pressure, 90 mmHg] or higher, accompanied by dizziness, headaches and other symptoms of cardiovascular diseases. According to the clinical symptoms, hypertension belongs to the category of "cerebral congestion syndrome" in the Medical Zhongzhongshen Xilu. From the perspective of traditional Chinese medicine, internal wind is an important factor in the formation, occurrence and development of hypertension. High blood pressure can cause "internal trauma accumulation and damage" over time, which is the premise \cite{2} of cerebral congestion syndrome. Zhang Xichun was a great master of traditional Chinese medicine in modern times and a representative figure of the school of convergence of traditional Chinese and Western medicine. His book Yi Xue Zhong zhong shen Xilu (Zhongzhong Shen Xilu) had a profound influence on later generations. Shi Jinmo was one of the leading figures of modern Chinese medicine. Shi Jinmo's Complete Collection of Medicine compiled by his disciples included dozens of cases of hypertension. The understanding and treatment
of this disease by the two doctors had both common features and unique solutions. It can expand broader ideas for the treatment of hypertension with traditional Chinese medicine.

2. Etiology and pathogenesis

2.1. Etiology

Overview of Wang Daorui’s "Complete Works of Shi Jinmo's Medicine" [3] with Zhang Xichun’s "recorded in medical applications and the west" [4] in the about high blood pressure. This paper can be concluded that two physicians understanding the causes of high blood pressure is consistent, roughly is divided into five aspects: one is internal injuries of the viscera, the second is exogenous vessel, three is working knowledge, the four is eating the taste, five is the emotional stimuli and its spirit of excessive tension.

2.2. Pathogenesis

Zhang Xichun pointed out in Yi Xue Zhong Zhong shen Xilu that hypertension (cerebral congestion) in western medicine is called "internal (similar) stroke" in traditional Chinese medicine. It is believed that the pathogenesis of hypertension is caused by the rise of blood in the brain with the increase of air. According to the theory in the Neijing (Internal Medicine) that "all winds fall from dizziness, and all belong to the liver", Zhang Xichun closely related hypertension to the loss of liver wood. The Neijing said that covering the liver is wood zang, and the original main wind is the wind. And in the send phase of the fire, wood fire is exuberant, also has its own wind. Liver body Yin and Yang, active main rise, kidney for water, the main essence, the main body fluid. Physiological cases, spleen and stomach health, the lung kidney water with e soil right down, and the kidney water is sufficient, nourishing the liver wood, left up their own soil and broad, therefore, the human body and functions of qi activity balance coordination, rise and fall of Yin and Yang and orderly, and down clear and smooth, blood, blood pressure is stable [5]. Ye Tianshi recorded in the Clinical Practice Guide, "The liver is the viscera of the wind and wood. Because the seminal blood is exhausted, the water does not contain the wood, and the wood is less nourishable, the liver Yang is excessive, and the internal wind works." On Regulating the Classics in the Neijing (Internal Canon of Medicine) : "If blood and qi go up, it is great syncope, and syncope is violent death." Thus it can be seen that hypertension is due to the liver wood loss and liver wind movement, and to the lung qi is not healthy, kidney qi is not taken, qi, stomach qi and back on the inverse, the gassing of viscera is too high, and the blood is injected on the brain. Shi Jinmo believed that hypertension was the syndrome of deficiency of the root and excess of the standard, and the pathogenesis was the fan of the wind and fire, the high top of the head, and the blood rushed to the brain. He believed that the blood vessels in the head of patients with hypertension were full, the blood in other parts was not smooth, the blood vessels in patients were thin, blood collection, blood retention, blood coagulation, and presented a state of excess and deficiency and imbalance of profit and loss. Through the analysis and summary of his medical records and medical words, it was found that the treatment of hypertension was mainly based on the liver, and the prescriptions and drugs could be roughly divided into: the drugs for suppressing the liver, flattening the liver and clearing the liver for the treatment of symptoms; There are five categories of drugs for tonifying liver and kidney. It can be seen that both of them believe that hypertension is most closely related to liver wood, and that "blood rising to the brain" is the key to the disease.

The differences between the two are as follows: first, Zhang paid more attention to the operation of qi machinery of the whole body, with the liver and spleen rising to the left and the lung and stomach descending to the right. Although hypertension involves blood rushing up to the brain, blood goes up
with qi and rises with qi. Shi Jinmo paid more attention to the coagulation, congesting and stasis of blood itself. Secondly, although both doctors proposed the existence of the disharmony between the liver and the wood, Zhang Xicun believed that the disharmony between the liver and the wood was rooted in the disorder of the rise and fall of the spleen and stomach. He pointed out that to treat the liver, one should increase the spleen and decrease the stomach, and cultivate the middle palace. When the qi rises, the liver qi rises accordingly. Stomach qi down the bile fire from the subsequent decline also. "Neijing" says: "Jueyin does not cure, seek the yangming." Jin GUI says: "To see the disease of the liver, the spleen should be solid first." He emphasized that elevating and lowering the spleen and stomach is the only way to treat the liver. On the treatment of Jueyin in Neijing (Internal Canon of Medicine), there is a saying that "regulating qi in the middle to make it peaceful". Among them, the so-called regulation of qi means that the spleen is raised and the stomach is lowered. The so-called harmony, that is, the spleen and stomach and liver qi since peace also. In this regard, Shi Jinmo did not mention the relationship between hypertension and spleen and stomach in his book. In view of the pathogenesis of hypertension, the combination of the two theories is more complete and has more practical value in clinical practice. That is, the imbalance of the rise and fall of the spleen and stomach is the root cause of the disease, and the fire of the liver and gallbladder with qi and blood is the key to the pathogenesis.

3. Clinical manifestations

The common clinical symptoms of hypertension are summarized as follows: (1) elevated blood pressure without any other symptoms; (2) the head often dizzy, or often have pain and fever in the brain, resulting in insomnia, or eye distension (pain) and tinnitus, or in the heart irritability, chagrin, impatience, or diet is not good, or the whole body pain, facial numbness, or limbs gradually feel bad, weak, or facial color such as drunk, or even vertigo, as to the stumble. Stool or dry knot. Its pulse strings are long and strong.

The head or vertigo, due to the liver wind movement, blood rises with the air, the brain congestion is excessive; The diet does not descend, the stool dry knot does not do, because the liver fire rises too much, the stomach qi does not descend, and loses its duty of transmission; Their heart irritable, red face, because of the liver and stomach fire rise also; Its self-conscious numbness, due to qi depression in the meridians, block not to move also, the shape is like a disorderly needle micro-prick image, is called the hemp, for a long time and closed qi, muscle stubborn, pain and itching no sense, is the wood.

4. The law and the principle of treatment

By combing the two doctors' discussion of this disease and the Chinese medicine they used, it can be concluded that the treatment methods established by the two doctors in the treatment of hypertension are the same. And both they follow the principle of slow and urgent preparation of the Yellow Emperor's Inner Classic, and establish "inducing blood to go down and breaking the bitter cold straight" as the treatment of symptoms, and "nourishing the liver and kidney" as the treatment of the root. Among them, Shi Lao's method of distilling blood was called by Zhang Xichun as the "method of suppressing the liver", and the herbal medicine of soothing the wind was called the "method of soothing the liver". The heat-clearing and reducing powder used in the straight-folding method of bitter cold is called the "liver-clearing method". Nourishing the liver and kidney is used to nourishing qi, blood, Yin and Yang, strengthening muscles and bones, strengthening waist and knees, soothing the liver and regulating qi, which is called "soothing the liver and tonifying the liver". Although the names of the treatment methods established by the two doctors are different, the essential medications are the same, which is actually the same.
For patients with high blood pressure, dizziness, tinnitus, palpitation, shortness of breath, impatience, and constipation in the acute stage of hypertension, the two doctors used mineral liver drugs and herbal liver drugs to induce blood flow, and at the same time used drugs that clear heat, cold and bitter cold to suppress the flame, remove the bottom line, and clear the qi of the bowels, so that the standard disease was treated and the blood pressure was self-calming. When the blood pressure drops and the main symptoms are slightly relieved, the blood pressure is fundamentally adjusted so that the blood pressure is stable and does not rise again.

5. Administering prescription and medication

The prescriptions sent by Shi Jin Mo have their own form of medication, mainly based on classical drug pairs, with precise compatibility and a wide range of drugs. He is especially good at using Sanhuanggypsum decoction as the basis for the treatment of acute hypertension. In Shi Jinmo's Complete Collection of Medical Sciences, dozens of cases of hypertension were collected. The drugs were widely used from the masters of various schools of medicine, the combination of drugs was precise and abundant, and he was good at adding and reducing drugs according to the syndrome. Zhang Xichun's prescriptions were characterized by strict use, less drug flavor, large dosage, strong pertinence, clear intention and ingenious compatibility. The basic formulation idea is based on the products of Zhengan Xifeng, such as raw ochre, keto and oyster, etc. Both of them use cow knee to induce blood descent and strengthen waist knee; The three are mostly used to nourish the spleen and stomach, nourish the liver and kidney, such as yam, raw malt, ripe land, cornus officinalis, etc., and the four are flexible with the disease. These prescriptions have been widely used in clinical practice and achieved ideal curative effect. Liu Lu [6] concluded that Zhengan Xifeng decoction could significantly reduce the blood pressure level and improve the clinical symptoms of patients with hypertension caused by excessive liver-yang.

5.1. Specific drugs commonly used in each treatment

The treatment of hypertension established by the two doctors was the same. Therefore, based on their discussions and medical records, this paper summarizes and summarizes the drugs mentioned and used in the treatment of hypertension by the two doctors as follows:

5.1.1. How to cure the symptoms

The prescription for calming the liver and suppressing yang included raddle, concha haliotidis, violet quartz, fossil fragments, magnetite, etc.

The prescription for clearing liver fire included rhizoma gastrodiae, uncaria hook, white muscardine silkworm, earthworm, scutellaria baicalensis, Forsythia suspensa, etc.

5.1.2. The method of curing the root cause

The prescription for nourishing liver and tonifying kidney included radix scrophulariae, cornus officinalis, dendrobe, eucommia ulmoides, etc.

The prescription for tonifying kidney and strengthening bones included mistletoe, rhizoma cibotii, ramulus mori, etc.

The prescription for soothing liver and regulating qi included ligusticum wallichii, fructus aurantii, pericarpium citri reticulatae, etc.

The prescription for nourishing qi and blood, nourishing yin and yang included American ginseng, donkey-hide gelatin, deerhorn glue, etc.
5.2. Characteristic Medicine

In the treatment of hypertension, Shi Jinmo often combined the important anti-hypertension drugs of ores with the antirheumatic drugs of herbs, such as Longgu, oyster -- Uncaria rhynchophylla, Gastrodiae, etc., to form the combination of drugs for inducing blood flow. Zhang Xichun was the first to use raw ochre and Sichuan cow's knee for the treatment of hypertension. He believed that ochre, with its heavy quality, could reduce the stomach, calm the liver, and relieve qi. Its medicinal properties are gentle, reducing qi without damaging qi, and its downward power is good to pass the dry knot of stool without the harm of breaking. If loose stool, can easily replace ochre red stone fat. Niuxi is an essential medicine for the treatment of leg diseases. In Mingyi Bielu (Alternate Records of Famous Physicians) and Qianjin Yi Fang (Prescriptions for Thousands of Gold), it is described as relieving brain pain and inducing qi and blood.

In addition, Zhang Xichun pointed out that liver was an official of the general, and his nature was Congo. If the important medicine was used too heavily, it might turn to arouse the power of his reaction. So Zhang Xichun will often wormwood, raw malt and sichuan and contrast the three drugs and ore town of drug compatibility for the treatment of high blood pressure, he sees the gall is the tender of artemisinin, less spring forth Yang qi, and liver wood sympathies, purging liver heat and comfortable liver depression, firm will arrange sex liver wood; Malt is the sprout of the valley, and its raw use is also good to make the nature of shunganmu not depressed; Toosendanzi good lead liver qi issued, and can fold its reactionary force. This is the further deepening and play of its treatment of hypertension.

5.3. How to apply the drugs for activating blood circulation and removing blood stasis

In the treatment of hypertension, whether to use blood-activating agents and how to use them, both doctors held the same view: "It should not be used inappropriately in the initial stage, with blood stasis should be used with caution, and it is applicable after cerebral hemorrhage." If hypertension has no symptoms of blood stasis, it is not appropriate to use drugs that promote blood circulation and break blood, in order to prevent the swelling of blood flow, and then cause damage to the hardened and narrow blood vessels, and become the harm of blood vessel rupture. Even if there are signs of blood stasis, it is only appropriate to choose 1 to 2 kinds of blood-activating drugs, and the amount of drugs should be light. For patients who have a history of cerebral hemorrhage, coagulation in blood vessels, and even residual sequelae such as limb weakness, disadvantage, and numbness, they must be treated with drugs for promoting blood circulation and removing blood stasis. Studies have shown [7] that drugs for promoting blood circulation and removing blood stasis have antithrombotic effects, which can reduce blood pressure by regulating microcirculation, improving hemorheology and vascular endothelial function.

5.4. It is forbidden to use hot and dry products

Shi Jinmo in the treatment of hypertension, attaches great importance to the state of "blood points", he proposed that the medication should be "static" characteristics throughout the treatment of hypertension, the so-called "static" method, is based on hypertension patients "fine blood vessels, blood collection, blood retention, blood coagulation" on the pathogenesis. He pointed out: "Such patients, often more heat and phlegm, true Yin is deficient, internal heat is very much, suffering body fluid, congestion airway, not to pass the benefits, medication should be clear heat and smooth qi products." This in accordance with the "Neijing" "heat Yin Sheng, treatment with Gan cold" of the purpose, spicy channeling dispersing hot products all be put out of the hands, mainly static. Zhang Xichun explored the historical origin and development of apoplexy. Since the Tang and Song
Dynasties, it has been named apoplexy regardless of its endogenous origin. The wind received by the husband is the true stroke, and the endogenous wind is the quasi-stroke. Its etiology is very different, and the treatment is difficult to follow the same. If the syndrome differentiation of hypertension in western medicine is not clear, it is an internal stroke, and it is also published with the medicine of dispelling wind, the blood in the viscera will also rise with the published medicine, then the congestion in the brain will be very good, the blood pressure will be higher, or the rupture of blood vessels will be incurable. Therefore, such as: Fengfeng, bupleurum, cinnamomum, aconite, dried ginger, such as hot and dry, rise float published medicine is not available.

5.5. Add or subtract variable medication

For the concurrent clinical symptoms of patients with hypertension, both doctors had rich and flexible discussions in their own works. For the concurrent symptoms of insomnia, Shi Jinmo often chose: Polygalae, Cloud poria, Fu Shen, Shouwuteng, stone calorinosus, Schisandrum chinensis, American ginseng, Radix ophiopodiae japonicum, sour jujube kernel and other 2 or 3 tastes, in order to calm the mind, Zhang Xicheng on the theory of viscera qi machine rise and fall, the selection of radix scrophularia, asparagus japonicus and radix ophiopodiae has more effect of clearing lung qi, if the purification of qi in the lung downward, self-energy control liver wood, the body viscera qi machine rise and fall as normal, liver left, lung right fall, Jun phase two fire can dive, kidney water can be hidden, God soul soul can each secure its place, people can sleep and sweet at night. If the stool is mysterious, it is commonly used: Sichuan army, Guaowei, Xiebai, silkworm sand, saponie seed, peach kernel, almond, etc., to promote the stool. Among them, Sichuan Army is used when the qi of the bowels is different and the fever of the bowels is serious. The most commonly used combination of guaowi, Xiebai, silkworm sand and saponin seed were used in the treatment of general patients with constipation. Zhang Xichun for constipation, will also add rhubarb count money, if the body shape and pulse are not very strong, will add peach kernels, salvia miltiorrhiza: If the stool is loose, to replace ochre, add lotus seed (heart) three money, or with red stone fat one or two easy to replace ochre; Also, for those who have difficulty urination, Shi Jin Mo often uses: white root, bamboo leaf, rushes, grass, plantaginis to relieve urine; For those with poor appetite, Jiao Sanxian was often used. Zhang Xichun often added raw chicken and raw malt, which he believed could also promote the stagnation of all kinds of drugs, and the malt was good at mediating the liver qi. In addition, for patients with serious depletion of true Yin, prominent symptoms of Yin deficiency, or patients with remission of hypertension, both doctors concurred that nourishing Yin drugs, such as scrophularia radix, Radix radix radix, and asparagus radix, should be added appropriately. At the same time, it can also add Chinese wolfberry, cornus meat, longan meat and other Yin nourishing blood products.

6. Examples of cases

The author studied under Professor Li Xiuhua, a famous old TCM doctor in Chongqing, whose medication was flexible and clinical curative effect was repeatedly achieved. He collected a medical case of his diagnosis and treatment of hypertension, and analyzed the thought of diagnosis and treatment and prescription, which happened to coincide with the above two doctors.

Zhao Mounou, female, 52 years old. Date of initial diagnosis: February 17, 2023, place of initial diagnosis: Room 207, Famous Doctor Hall, Daomenanmen Branch, Chongqing Hospital of Traditional Chinese Medicine. The chief complaint was recurrent headache and dreams for 10 years. History of present illness: found that the blood pressure increased for half a year, the highest blood pressure was 170/104 MMHG, the stool was dry, the urine was yellow, the menstrual cycle was bad, the menstrual period was easy to repeat oral ulcer, the last menstrual season: 2023-2-11. The tongue
is red, the coat is thin yellow, and the pulse string is thin. Past history: hyperlipemia syndrome after uterine myoma surgery. Family history: Both parents had hypertension. After analysis, the Western medicine diagnosis of this patient was hypertension headache. The traditional Chinese medicine diagnosis was headache, and the syndrome type was liver-yang hyperactivity with phlegm obstruction. The prescription included astragalus membranaceus (30g), salvia miltiorrhiza (30g), ligusticum wallichii (15g), fried tribulus terrestris (10g), cyathula (10g), caulis spatholobi (30g), scutellaria baicalensis (15g), fried jasmine (15g), prunella vulgaris (30g), earthworms (15g), fossil fragments (30g), oysters (30g), eucommia ulmoides (10g), fried jujube (15g), licorice (3g), monascus (12g), monkshood (30g), albizia bark (30g) and schisandra chinensis (10g). The above prescription was given 150ml per time, 3 times a day for 1 week.

Return visit on February 27, 2023: headache was relieved and sleep was better than before. Blood pressure decreased from 170/104 MMHG to 140/96 MMHG, stool was still dry, and consolidation treatment was continued. The prescription included astragalus membranaceus (30g), salvia miltiorrhiza (30g), ligusticum wallichii (15g), fried tribulus terrestris (10g), cyathula (10g), caulis spatholobi (30g), scutellaria baicalensis (15g), prunella vulgaris (30g), earthworms (15g), oyster (30g), eucommia ulmoides (10g), fried jujube (15g), licorice (3g), monascus (12g), vine of multiflower knotweed (30g), albizia bark (30g), schisandra chinensis (10g), concha haliotidis (30g), violet quartz (30g). The above prescription was given 150ml per time, 3 times a day for 1 week.

Return visit on March 06, 2023: no headache, sleep improved significantly, blood pressure was controlled within the normal range, and stool was smooth. The above prescription and administration remained unchanged to continue to consolidate treatment.

According to the following criteria: The patient visited the hospital three times in total, and was treated with the methods of suppressing the liver, clearing the liver, and flattening the liver for the elevation of blood pressure and the acute symptoms of headache. Among them, the use of mineral drugs: keel, oyster, Shi Jieming, calcinized purple quartz, this is the method of liver; The use of herbs and insect drugs: stir-fry Tribulus terrestris, achyranthes bidentata, earthworm, this is the method of flattening the liver; The use of cold, heat and fire drugs, such as scutellaria baicalensis, prunella vulgaris, this is the method of liver clearing. In the recipe, monqu invigorates the spleen, fuling is sweet, moistens the spleen, and calms the heart; Jujube seed, Shouwu teng, acacia skin, Schisandra yangxin calming mind, for the old Li treatment of insomnia common drug combination. Among them, astragalus membranaceus, Salvia miltiorrhiza, Chuanxiong rhizoma and Jixueteng were the most important. According to the academic thought of Zhang Xichun and Shi Jin-mo, astragalus membranaceus was not suitable for promoting blood circulation and removing blood stasis in the acute stage of hypertension, and astragalus membranaceus was not suitable for the acute stage of hypertension. However, in the Complete Collection of Shi Jinmo Medical Science, it is mentioned that the treatment of hypertension should be carried out through the whole treatment process with the method of "static passage". It is also necessary to eliminate obstructing obstructs and make the blocked blood vessels circulate again. As long as the use of spicy, dry and strong traditional Chinese medicine is not used, adhering to the purpose of the Neijing (Internal Canon) "heat and Yin is overcome, Gan cold is treated", and the method of "static passage" is used to dreg blood vessels, it will be more beneficial to the patients. At this time, if you want to dreg blood vessels, you can use the traditional Chinese medicine Astragalus membranaceus as an auxiliary. But the astragalus membranaceus is warm in nature and has the property of increasing and supplementing, so it is necessary to use a large number of important drugs and heat-clearing drugs in the prescription to supervise its bitter temperature.
7. Conclusion

This article through to Zhang Xichun recorded in medical applications and west - brain haemorrhage door "and" the complete works this ink shi medical hypertension medical record summary and comb, can be found that high blood pressure is essentially "disease of this virtual standard lab", it is no absolute nakedness, often the actual phase noise. Hypertension is closely related to the liver, kidney, spleen, stomach, lung, heart and other viscera. The key of hypertension is "blood rising to the brain". In the treatment of hypertension, it is necessary to distinguish the weight of the specimen and follow the instructions of the specimen in the Neijing (Internal Canon of Medicine). Even if it is deficiency hypertension, the standard and solid are very serious. The so-called more deficiency and more solid, the condition is critical, so we should pay attention to the symptom first, and then the root cause. To cure the symptoms, we should respect the method of suppressing, leveling and clearing the liver, and to cure the root of the disease, we should keep the principle of soothing the liver and reinforcing the liver. We should follow the law from the root and follow the standard, and should be flexible, and we should never be rigid and paranoid.

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Construction project of Inheritance Studio of famous and old TCM expert Li Xiuhua in Chongqing (No. 20 of Chongqing TCM [2020]).

References