

# Experience of Treating Hypertension from Liver and Spleen Among Middle-Aged and Young Patients: A Summary

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**Abstract:** *Qi* deficiency of the spleen and stomach, transportation, phlegm and dampness generate endogenous and turbid phlegm that violates the position of *yang* clearance. As a result, dizziness resulted. The author believes that the incidence of middle-aged and young patients with hypertension is mostly related to the dysfunction of liver and spleen. Liver depression and *qi* stagnation is the beginning of the onset; spleen deficiency and dyskinesia is the norm of the onset; and liver and spleen imbalance is the origin of the onset. It is advocated that regulating the liver and spleen to restore the rise and fall, harmonizing *qi* and blood and preventing lesions are the main treatment methods for the treatment of middle-aged and young people's hypertension, which is conducive to the development of more clinical diagnosis and treatment ideas for hypertension among middle-aged and young people.

**Keywords:** Hypertension; Young and middle-aged; Liver and spleen; Clinical experience

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## 1. Introduction

With lifestyle and dietary changes, the incidence rate of hypertension among young and middle-aged groups is increasing year by year <sup>[1]</sup>, and the risk of cardiovascular disease (CVD) also increases significantly with blood pressure <sup>[2]</sup>. As a common chronic disease, there is no fixed and clear term for hypertension in traditional medicine, but according to its different clinical manifestations, it can be summarized in the category of "dizziness," "headache" and other diseases in traditional Chinese medicine. If the middle-aged and young people's hypertension is not well controlled, it will prolong the course of disease and easily cause damage to important target organs such as the heart, brain and kidney. Therefore, timely and effective prevention and treatment of middle-aged and young people's hypertension is particularly important to reduce the incidence of CVD events, and it is also in line with the thought of "preventing disease from exacerbating" in traditional Chinese medicine. The author has some experience in clinical syndrome, which is presented as follows:

## 2. Liver depression and *qi* stagnation is the beginning of hypertension among middle-aged and young people

Young and middle-aged people are entrusted with many responsibilities, which induces mental stress, fatigue or even anxiety and depression. Social psychological factors have become an important cause of the increase of incidence rate of hypertension in young people <sup>[3]</sup>. Due to emotional factors, most young

and middle-aged patients with hypertension are related to sympathetic nervous system. This causes vasoconstriction and increases blood pressure <sup>[4]</sup>. “Yibian · Yu” states that: “All diseases are born of depression. Depression without remission is the disease of liver wood.” The author believes that the syndrome of liver depression and *qi* stagnation is common in young and middle-aged patients with hypertension in the early stage of onset. If the liver wood depression is not sparse for a long time, it tends to lead to *yang* excess and wind generation. Young and middle-aged people are often in a more vigorous state of *yang*. If their emotions are in a bad place and their liver is out of order, their *qi* upbearing and effusion will be blocked, they will be depressed for a long time and turn into fire, dark will consume liver *yin*, and the wind and *yang* will rise and move up and disturb the orifices and cause dizziness. Just as the medical record of clinical guidelines: “All sorts of wind syndrome manifested as convulsions and dizziness belong to the pathological changes of liver. The head is the head of the *yang*, and the ears, eyes, mouth and nose are the empty orifices in and out of the body of the *qi* of *qingyang*. The vertigo is not an external evil, but the rises of wind and *yang* of the liver and gallbladder;” “Zhengzhi Huibu” also states that “Seven emotions make visceral *qi* uneven, depression generates saliva, and the stasis becomes water-rheum, which makes people dizzy when going up.” Therefore, the early stage of dizziness in middle-aged and young people is closely related to liver *qi* stagnation, *yang* excess and wind generation.

### **3. Dysfunction of the spleen in transport is the norm of hypertension in middle-aged and young people**

According to the survey and research, high-salt, high-sugar and high-fat diet, smoking, drinking and obesity are the main risk factors for hypertension in young people <sup>[5]</sup>. The author believes that most people today are addicted to tobacco smoking and alcohol as well as greasy and sweet food, suffer from lose work-life imbalance, and have no fixed time to have meals, resulting in the loss of protection of the spleen and stomach, which occupies a key position in the pathogenesis of essential hypertension. First, the spleen is dysfunctional in transport and phlegm and phlegm-damp are endogenous. Spleen deficiency can easily cause phlegm retention and water-rheum, which leads to various diseases. Phlegm dampness accumulates and stagnates in the middle energizer, which can further aggravate spleen deficiency and spleen *qi* depression, resulting in disease onset due to the failure of clear *yang*'s rise and the disturbance of turbid *yin* with phlegm. As Dongyuan Li said: “*Qi* deficiency of the spleen and stomach, transportation, phlegm and dampness generate endogenous and turbid phlegm that violates the position of *yang* clearance, resulting in dizziness.” Second, the five internal organs are out of balance and the functioning of *qi* is in disorder. “Seeking Truth from Medical Science” explains that: “If the middle-warmer *qi* is in excess, the spleen will rise and the stomach will fall, and the four phenomena can rotate. If the middle-warmer *qi* is collected, the spleen will be depressed and the stomach will go against, and the four phenomena will lose their operation.” Third, dampness and turbidity enter the collaterals, and the pulse channel is stagnant. “Magic Pivot · Channel Vessels” states that “If the arteries and veins are unobstructed, the blood and *qi* can go through.” The pulse channel is smooth, the circulation of *qi* and blood is endless, and the pressure of the pulse channel is stable. Because of depression, thick taste and other internal and external causes, today's patients are injured in the spleen and stomach, phlegm dampness develops, and blood stasis accumulates in the pulse and internal organs, resulting in narrow blood vessels, soft pulse and elevated blood pressure.

### **4. Disorder of liver and spleen is the basis of hypertension in middle-aged and young people**

The author believes that the dysfunction of viscera and *qi* in middle-aged and young hypertension is mostly related to the abnormal function of liver and spleen. “Plain Questions · Great Treatise on the Five Normal Rules” states that “The period of occurrence is the time of removing the old in order to build the new, the soil is loose and thin, and the green of grass and wood is prosperous... Its changes in the body are dizziness and disease of the head.. Its meridians in the human body are *shaoyang* of foot *jueyin*, and affects heart,

liver and spleen. Disharmony of liver and spleen is an important link in the pathogenesis of hypertensive vertigo. “Xuezhenglun” states that “The nature of wood mainly governs catharsis. Drawing *qi* into the stomach depends entirely on the *qi* of liver wood to catharsis, and the water and grain are digested.” Yuanyu Huang’s “Sisheng Xinyuan” elaborates that “When the spleen rises, the kidney and liver also rise, so water and wood are not depressed.” It is precisely because the liver and spleen complement each other in physiological function and can also affect each other under pathological conditions. If the liver loses its orderly reaching and depression stagnates in the middle energizer, it is easy to transverse and violate the spleen. On the contrary, the liver wood is weak, the spleen soil is strong, and the spleen is easy to overcome the liver. In the early stage of the onset of hypertension in young and middle-aged people, the disease starts in the liver. As the direct pathogenesis of the disease, liver *qi* stagnation can indirectly lead to the endogenous stagnation of fire, the stagnation of *qi* and blood, the loss of movement of spleen deficiency, and the disharmony of stomach *qi*. The disease often occurs in the spleen. The spleen loses health and movement, water and dampness stagnates, phlegm and blood stops and obstructs, and it does not rise or fall. Finally, it will lead to liver and spleen imbalance, disharmony of *qi* and blood, phlegm dampness and blood stasis in the pulse channel, so as to block blood circulation and increase pulse pressure.

## **5. Clinical syndrome differentiation and treatment ideas**

### **5.1. Regulating the liver and spleen to restore the rise and fall**

In the treatment of young and middle-aged hypertension, we should focus on adjusting the balance of viscera and *qi*. The treatment is mainly focused on the treatment of liver and spleen. It is emphasized that the function of liver and spleen should be emphasized in clinical treatment, which should not be limited to the diagnosis and syndrome differentiation. The same is true for clinical medication. Sini Powder and Chaihu Decoction can be used as the basic prescriptions to disperse depression, harmonize liver and spleen and smooth *qi*. Radix Bupleuri, Fructus Aurantii and Radix Angelicae Sinensis are the main drugs. Jingyue Zhang said that Radix Bupleuri “has a light smell, governs upbearing, has scattered nature, and mainly is liver meridian depression syndrome.” Supplemented with Fructus Aurantii, the medication can regulate *qi* and widen mid, as well as dissipate binds and stagnation of depression. Combined with white peony, it can soften the liver, nourish blood and collect *yin*, so as to nourish liver blood and smooth liver *qi*, and avoid the disadvantage of consuming *yin* blood due to Chaihu Shengsan. Assisted by Radix Angelicae Sinensis, it can nourish blood and make liver *qi* reach itself. Promoting blood circulation can change *qi* stagnation and blood stasis. “Jing Yue Quan Shu · Tan Yu” states that “The view of liver evil is based on the deficiency of spleen and kidney, so that the spleen and stomach are not deficient, although the liver wood is strong, there will be no risk of taking advantage of the spleen.” It is first mentioned that liver *qi* riding on the spleen should be responsible for the deficiency of the spleen. Therefore, it is necessary to soothe the liver and supplement the spleen and *qi* with Poria cocos, Rhizoma Atractylodis Macrocephalae and other products for strengthening the spleen and *qi*, or choose Buzhong Yiqi Decoction and Guipi Decoction to replenish the spleen, raise *qingyang* to mediate the *qi* mechanism of *zhongzhou*, and timely add drugs for inducing turbid *yin* and sinking, such as Radix Achyranthis Bidentatae, Red Ochre and Concha Haliotidis. Combined with the patient’s condition, it should make flexible addition and reduction, so that the liver wood sparse, spleen soil transport, interdependence exists between ascension and descension, and the blood pressure gradually resets to normal.

### **5.2. Regulating liver and spleen to harmonize *qi* and blood**

“Plain Questions · Treatise on Regulating the Channels” states that “With disorders of *qi* and blood, many diseases arise from changes.” Therefore, maintaining the stability of blood pressure in middle-aged and young people depends on smooth blood vessels and harmony of *qi* and blood. In the process of treatment,

we should pay particular attention to the regulation of *qi* and blood function, adhere to the principle of “*qi* is tonic and blood is harmonious,” and focus on *qi* and blood diseases. “Magic Pivot · Understanding the Qi” pointed out that “The middle energizer takes juice from *qi* and changes to red, which is called blood.” The liver and spleen located in the middle energizer can also turn *qi* into blood. Therefore, regulating *qi* and blood mostly starts with adjusting the dysfunction of liver and spleen. In the early stage of treating middle-aged and young hypertension, we must fully consider regulating the function of liver and spleen. In the middle and later stage, if the disease of *qi* and blood affects the whole body, and then there are pathological products such as phlegm dampness, water-rheum, blood stasis and turbidity, the overall situation should be coordinated during treatment. While strengthening the spleen and transporting dampness, the products of tonifying *qi*, activating blood circulation and dredging collaterals should be supplemented, so that the phlegm dampness can be removed, the blood stasis and turbidity can be dispersed, the *qi* and blood can be unobstructed and the vein is in harmony. Clinical syndrome can be treated with Huangqi Chifeng decoction, Siwu Decoction, etc. to harmonize *qi* and blood, dredge and tonify. Radix Astragali seu Hedysari is the main drug in the prescription, which can replenish *qi* and dredge collaterals; Radix Saposhnikoviae reinforce external to increase Radix Astragali seu Hedysari’s function of replenishing *qi*; Radix Paeoniae Rubra can activate blood circulation and dredge collaterals. It can replenish *qi* and dredge meridians outside and activate blood circulation and dredge veins inside. In the application of Siwu Decoction, most of the radix rehmanniae preparata should be changed to rehmanniae praeparatum for fear that it will nourish and hinder the stomach. If blood stasis is too heavy, Radix Paeoniae Alba should be changed to Radix Paeoniae Rubra, which is used with Semen Persicae.

### 5.3. Regulating liver and spleen to prevent pathological changes

“Gezhi Yulun” states that “God governs living creatures, so it is constant in motion; people originate from it and are always moving in this life.” The normal life activities of the human body are in the overall constant state, and the disease development process is also changing. During treatment, we should pay more attention to the changes of the overall symptoms, and adjust the principles, methods, syndromes and prescriptions according to the dynamic changes of syndromes, so as to reconcile the balance of *yin* and *yang* in the patient’s viscera. At the beginning of the onset of hypertension in young and middle-aged people, the lesions are in the liver and spleen, and for a long time, they involve the heart and kidney. Most of them are mixed with deficiency and excess syndrome. It is necessary to dynamically observe the evolution of its pathogenesis. In the early stage of the disease, if dizziness, headache, impatience and irritability occur due to the loss of the pivot of the spleen and stomach, the liver and gallbladder have no right to soothe, and *qi* depression turns into fire. When the fire flame gas runs and causes dizziness, headache, irritability and so on, Danzhi Xiaoyao Powder can be selected to soothe the liver, strengthen the spleen, relieve depression and diarrhea heat. The liver wood depends on the water conservation of the kidney. If the wood is blocked for a long time, it will lead to the lack of kidney water, and the *yin* deficiency of the liver and kidney. Patients with dizziness, eye swelling, strained waist, tinnitus, red tongue and less coating caused by hyperactivity of *yang qi* were better treated with Tianma Gouteng Decoction combined with Sini Powder to soothe the liver, calm the liver and latent *yang*, and assisted with the *yin*-nourishing drugs such as Radix Rehmanniae Recens, Cornus and Ophiopogon japonicus. If dizziness, upset and insomnia occur due to long-term liver depression, overthinking, *yin* consumption and blood injury that result in hyperactivity of heart fire, poor kidney water, loss of brain support, Sini Powder combined with Jiaotai Pill can make the heart, kidney, liver and spleen in harmony. With the development of the disease, considering that *qi* depression, phlegm dampness and blood stasis will inevitably hurt the vein and affect the operation of blood vessels in the whole process of the disease, Rhizoma Ligustici, Radix Paeoniae Rubra, Radix Curcumae and other products were added for promoting *qi*, activating blood circulation and removing blood stasis.

## 6. Summary

In short, the middle-aged and young people with hypertension are special, so they should pay attention to it as soon as possible, coordinate the liver and spleen, prevent disease before disease, and prevent change after disease, which is of great significance to reduce the incidence of cardiovascular and cerebrovascular diseases. In addition, it is clinically observed that some middle-aged and young patients with grades 1 and 2 hypertension have no obvious clinical symptoms, and their tongue and pulse are no different from ordinary people. Considering that such people may have reversible hypertension in accordance with the latest guidelines, the author believes that such patients with hypertension do not need drug treatment for the time being, so they need to constantly monitor blood pressure, improve their awareness of the disease, adjust their eating habits and rest time, and improve their quality of life by changing lifestyle and reducing blood pressure.

## Disclosure statement

The author declares no conflict of interest.

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