

# Discussion on the Pathogenesis of Hypertension in Traditional Chinese Medicine based on "One Qi Circulation"

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**Abstract:** *This paper summarizes the pathogenesis and dialectical classification of hypertension from the perspective of traditional Chinese medicine, and integrates the research results of hypertension from the previous schools of traditional Chinese medicine based on the theory of "one qi circulation", as well as the key points of syndrome differentiation, and concludes that under the theory of "one qi circulation", the main pathogenesis of hypertension is related to soil dampness and wood depression and poor operation of qi and machine, and this theory can be used to better carry out the diagnosis and treatment of hypertension in traditional Chinese medicine, in order to provide new ideas for the diagnosis and treatment of hypertension in traditional Chinese medicine.*

**Keywords:** Hypertension, Circulation, Traditional Chinese medicine.

## 1. Introduction

Hypertension is the most common circulatory disease, nearly half of the elderly are plagued by hypertension, which has a huge impact on the health status of the general population, and hypertension is one of the main risk factors for heart failure, stroke and other diseases, 62% of strokes and 49% of cardiovascular diseases in the world are directly caused by hypertension [1], TCM believes that hypertension belongs to the category of "headache" and "dizziness". Traditional Chinese medicine has a unique understanding of hypertension, but there is no unified understanding of the etiology and pathogenesis of hypertension. This article reviews the understanding of hypertension in the field of Chinese medicine, and proposes a possible dialectical analysis based on Huang Yuanyu's theory of "one qi circulation", so as to promote the progress and development of Chinese medicine theory. Huang Yuanyu is a famous medical scientist in the Qianlong period of the Qing Dynasty, whose academic ideas inherit the "Yellow Emperor's Neijing" and "Treatise on Typhoid Fever", and put forward the "Theory of Circulating Together".

## 2. The Theory of One-gas Circulation

Huang's "One Qi Circulation" mainly highlights the medical theory of the "holistic concept" of Chinese medicine, and the philosophical basis of its theory is "Qi Monism". Man and nature, the inside of the human body, including the therapeutic effect of traditional Chinese medicine on the human body, are all the process of one-yuan qi circulation, and the qi of various viscera and yin and yang, and even the operation of the whole world, are all changes of "one qi", so the theory of "one qi circulation" believes that the basis of life activities in the human body is also the manifestation of the rise and fall of qi. The rise and fall of the qi engine is also closely related to the movement and circulation of all things in heaven and earth. Therefore, the occurrence and development of diseases are also closely related to the flow of qi, so TCM treatment must pay attention to regulating the rise and fall of

qi in and out of the human body, so that the flow of qi is smooth, so as to cure diseases. From this, the composition of the human body, including any life, is a complex and mysterious subject. From the perspective of "one qi circulation", the health of the human body is in a "dynamic balance", and the qi of various organs in the human body interact and influence each other to form a complex qi movement system, and in this movement, a healthy life is formed. Therefore, the functional activities of various organs of the human body are also interrelated and mutually restrictive, and the coordination and balance between them constitute a "one-qi circulation". For this reason, Huang put forward the view of "rising from the left and descending from the right, mediating with the middle qi" in the "one qi circulation". That is, the qi in the human body is mainly ascending on the left half and descending on the right half, and then with the "rising and falling, falling and rising", and then mediated by the middle qi in the middle of the focus, in order to form a complete process of qi circulation.

In short, this theory is self-contained and contains the essence of traditional Chinese medicine practice in the past dynasties, so it is more appropriate to study the TCM pathogenesis of hypertension on this basis.

## 3. Current Status of Western Medicine Treatment of Hypertension

In modern times, it is generally believed that the onset of hypertension is greatly related to lifestyle habits, such as high-salt diet, smoking, alcohol consumption, insufficient physical activity, mental stress, and even air pollution. All of them are considered to be risk factors for hypertension [2], and in modern treatment, ACE inhibitors, ARBs, and CCBs are mainly used for symptomatic treatment to stabilize blood pressure, improve patients' living standards, and prolong patients' lives. However, the specific mechanism of its pathogenesis has not been clearly discovered, and most modern treatment options are symptomatic treatments such as blood pressure control.

#### 4. Dialectical Classification of Hypertension in Traditional Chinese Medicine

In the process of diagnosis and treatment under the traditional Chinese medicine system, the emphasis is on syndrome differentiation and treatment, which has a basic order, that is, "rational prescriptions", first clear and reasonable, in order to use appropriate treatment methods for diseases, and then to choose appropriate prescriptions. There are many methods of syndrome differentiation and treatment, such as the Eight Gang Syndrome Differentiation, the Viscera Pattern Differentiation, the Six Meridian Pattern Differentiation, the Wei Qi Ying Blood Pattern Differentiation, and the Qi, Blood, and Fluid Pattern Differentiation. In the textbook, the visceral syndrome differentiation of hypertension is carried out according to the understanding of dizziness and headache by ancient doctors, and the understanding of hypertension is also different between different people. However, in clinical practice, the core pathogenesis and treatment principles of the core pathogenesis and treatment principles are similar, whether it is from the viscera syndrome differentiation or the eight-gang syndrome differentiation.

4.1 The Eight Outlines Dialectic is based on "Yin and Yang, Appearance and Interior, Cold and Heat, Void and Reality, and Eight Steels for Understanding Diseases." The understanding of hypertension under the Eight Gang Syndrome Differentiation is mostly concentrated in the range of dizziness and headache, and Zheng Bingyuan et al. concluded that the pathogenesis is (1) Dysfunction of viscera. Among them, hypertension manifested by vertigo is mostly related to the liver, kidney, spleen, and heart, and headache is related to hypertension related to the liver, kidney, spleen and stomach. (2) Loss of qi, essence and blood. Deficiency of qi and blood and lack of medullary sea can also lead to dizziness and headache. (3) Wind, fire and phlegm are intertwined. Actual evil affects the flow of qi and blood, and can also cause headaches, dizziness, etc. [3]. In terms of treatment, ancient doctors also formulated prescriptions based on the above-mentioned pathogenesis, and also achieved good curative effects, and derived acupuncture, acupoint application, medicinal bath, dietary therapy, medicinal pillow, qigong guidance and other treatment methods. The author believes that the main cause of the disease can be the dysfunction of the internal organs, or the weakening of essence and qi, or the influence of real evil and other effects on the operation of qi and blood, and the core of the disease is still in the operation of qi and blood.

4.2 The dialectic of five fortunes and six qi originates from the "Yellow Emperor's Neijing", in the dialectic of five fortunes and six qi, the pathogenesis of essential hypertension is Jin Kemu, water and soil are wrapped in fire, yin and yang are fighting and wind, liver qi is uncomfortable, and liver veins are confined and high blood pressure. Therefore, the prevention and treatment should be "warming the kidneys and dissipating dampness, promoting the lungs and soothing the liver" to achieve the purpose of effectively and steadily lowering blood pressure [4]. Under this dialectical theory, the core pathogenesis of hypertension is liver qi discomfort, liver pulse spasm, mainly caused by liver wind internal movement resulting in hypertension, liver blood storage, the main Shuda, if the liver qi is not sparse, then the blood flow is unfavorable,

that is, hypertension.

4.3 The dialectic of the Six Classics originates from Zhang Zhongjing's "Treatise on Typhoid Fever and Miscellaneous Diseases", and under the dialectic of the Six Classics, the syndrome differentiation of hypertension is more common in less yang disease, less yin disease, and taiyin disease. Among them, the proportion of two menstrual diseases is slightly higher than that of single menstrual diseases, and three menstrual diseases are very rare, and there are no more than three menstrual diseases. Women and young adults are more susceptible to impotence; The incidence of oligo-yin disease and tai-yin disease increases with age, and can be treated from the disease of less yang disease and the combination of taiyin and less yin disease [5]. Due to the fact that the fire of less yang, the damp soil of Taiyin, and the fire of less yin are in the same vein as the dialectic of the circulation of one qi, it can also be regarded as the cause of the poor qi caused by the fire not falling and the water and moisture in the earth.

4.4 The three-focal syndrome differentiation was established by Wu Jutong, a thermologist in the Qing Dynasty, and the upper coke, middle coke, and lower coke were the core of the dialectic, among which the three-coke qi depression was the core pathogenesis of hypertension, and the hypertension caused by the three-focal qi depression was generally divided into more depression and more fire in the early stage, abnormal fluid in the middle stage, mostly damp syndrome, and long-term illness in the later stage, and more stasis and more deficiency. In terms of treatment, the principle of "access to three focal points" is generally adopted, and the three focal points should be adjusted and the specimen should be taken into account, so that the body can achieve a state of "yin and yang secret" [6]. In the dialectic of Sanjiao, it is also based on the depression of qi and the stasis of blood veins as the basic pathological process.

4.5 Wei Qi Ying Blood Dialectic, Ye Tianshi summed up the experience of his predecessors, and combined with his own experience in the "Theory of Warmth" put forward, in the development of modern Chinese medicine Wei Qi Ying Blood dialectical theory also has a huge role, Wei Qi Ying Blood Dialectic believes that "hypertension" can be attributed to the category of "pulse swelling" in Chinese medicine, is the Ying Wei Qi and blood lesions. For example, "The Theory of Spiritual Expansion": "The camp qi circulates the pulse, and the guard qi reverses the pulse expansion." It can be seen that the onset of hypertension is closely related to health care. The theory of camp and health believes that the heart and pulse are the carrier, qi and blood are the material basis, and the camp and health regulate the pulse, which affects the qi and blood organs, and the camp and health will meet the blood pressure and fluctuate regularly, and the camp and health disorder is the main pathogenesis of hypertension. Together, Ying Qi and Wei Qi regulate the filling of the blood and the balance of vascularity contraction and expansion. If the health machine is reversed, the blood pressure will increase. The harmony of qi and blood in the camp is the key to maintaining a constant blood pressure [7]. The dialectic of Wei Qi and Ying Blood is more obvious to discuss the performance of qi and blood in hypertension.

4.6 In addition, modern Chinese medicine has also innovated

and developed, and put forward the "blood vein theory [8]", which takes the "qi-blood-pulse" system as a unified whole, "with the pulse as the main body and the qi and blood as the material basis". Dysfunction of the liver, spleen and kidney leads to pulse distention, and there is a law of the evolution of qi disease, blood disease and pulse disease. In terms of treatment, according to the different etiologies and pathogenesis of different ages, the three methods of regulating liver and lowering blood pressure, strengthening the spleen and stomach, and tonifying the kidney and pulse are used to treat hypertension in stages, and the research on blood and vein theory is more in line with the modern research results of hypertension, but the author believes that the research results highlight the relationship between qi theory and hypertension, and the relationship between qi and blood and qi circulation is close.

4.7 According to modern Chinese medicine textbooks, hypertension is related to the liver, spleen, and kidneys, and the modern viscera is dialectically classified as hyperactivity of liver yang, phlegm and dampness and internal abundance, blood stasis and internal arrest type, liver and kidney yin deficiency type, and kidney yang deficiency type [9]; Xiong Xingjiang et al. [10] believe that the pathological factors are fire, drinking, and deficiency, and this dialectical classification is a consensus reached between the dialectic of viscera and modern clinical research, and it can be seen that the understanding of hypertension in the Chinese medicine community is mainly the liver, spleen, kidney, and pathological factors such as wind evil, phlegm and dampness, rain and snow. In general, it still hinders the flow of the air and becomes the core of the disease.

## 5. Classification of the Pathogenesis of Hypertension in Traditional Chinese Medicine under the Theory of "One Qi Circulation"

From the perspective of "one qi circulation", the pathogenesis of hypertension can be attributed to the liver wood, heart fire, kidney water, and middle earth, which leads to the poor flow of "one qi circulation", resulting in an increase in blood pressure and hypertension [11]. Based on this theory, a relatively good curative effect was obtained. The earth (spleen) is left to the left, and the wood (liver) and the phase fire are left to rise in the heart and turn into the king's fire; If the earth (stomach) turns right, then the Xinjin (lung) and Junhuo are cooled down by the kidney water and become phase fire. This kind of left rotation and right turn, the process of circular movement is surprisingly consistent with the blood circulatory system, and when the circular movement of qi is often blocked in a certain link, the blood flow resistance in the blood circulation system increases, which in turn leads to an increase in blood pressure. Combined with the above theories of traditional Chinese medicine, it can be concluded that the understanding of hypertension in traditional Chinese medicine is also that the qi is not smooth, resulting in excessive pressure in the blood vessels, which is manifested as hypertension, dialectic is inseparable from the liver, spleen and kidney, and pathological factors are always inseparable from phlegm and drinking water. In general, the pathological factors are still the standard in the circulation of qi, blood and

fluid. This conclusion is also compatible with many of the above dialectical understandings. In Li Hongze's research, it can also be verified that the basic pathogenesis of hypertension is due to the abnormal rise and fall of the viscera qi, which is mainly related to the liver, spleen and kidney, and is most closely related to the spleen and stomach. In the process of treating essential hypertension, Li Dexin [12] used the theory of qi machine lifting to treat the disease with syndrome differentiation, and for those who were mixed with the virtual and the real, it was used to dredge the meridians and veins, and the clinical effect was good.

In the process of clinical practice and discussion of Xiao Qiusheng [13], starting from the lifting of the qi machine, combined with the theory of yin and yang five elements, the whole body qi operation of the human body was adjusted as a whole, and the circulation of the body's qi was restored, and good curative effects were often obtained. Therefore, due to the advantages of the simple and efficient use of the theory of circulating qi in the analysis of qi and blood operation, it is more advantageous to use the theory of circulating flow in the treatment of hypertension for research and analysis, which is worthy of popularization.

## 6. Summary

Based on the theory of circular motion, this paper summarizes the ideological dialectical essence of hypertension in the Chinese medicine circles of the past dynasties, combines the theoretical achievements of the six meridians and the dialectic of Wei Qi and blood, and takes the essence of the original exercise theory with the strong inclusiveness of the original exercise theory, and concludes that the treatment process of hypertension should be based on the liver, spleen, lungs and kidneys, with the goal of regulating the movement of qi and unblocking the flow of qi and blood, so as to achieve the yin and yang secrets of the body. However, based on this theoretical achievement, it is always good to adjust the qi machine as the starting point of treatment, and in modern clinical practice, it is often good to adjust the operation of the whole body qi and restore the circulation of the human body's qi from the whole body.

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