

# *Advances in the Study of Body Composition and Vertigo in Chinese Medicine*

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**Abstract:** Vertigo is a common clinical disease with complex causes, and some patients are prone to recurrent attacks and emotional and sleep problems even after symptomatic treatment, which affect normal life and work. The body constitution theory analyzes the overall condition of a person and is of great significance for the treatment of vertigo. The body constitution of vertigo patients varies greatly, among which Qi deficiency and Yang deficiency constitute a large proportion of the body constitution of vertigo patients. In recent years, there has been an increase in the number of studies between TCM constitution and vertigo, and we would like to review the relevant studies between them in the hope of providing new ideas and new solutions for the treatment of vertigo.

## **1. Introduction**

Physique is an objectively existing life trait. In the process of human growth and development, the formation of physique is a relatively stable life phenomenon based on innate endowment and the interaction of various factors, including the climate, growth environment, physiology, psychology, and other factors that influence the life of a person [1]. Because of the difference between individuals, the development of their diseases is also different [2]. If we can correctly grasp the physical characteristics and intervene in clinical practice, it is of positive significance for both the prevention and treatment of diseases.

## **2. Chinese medicine's understanding of body composition**

The differences between constitutions are not only reflected in physiological activities, but also play a role in guiding the course of disease when the individual is in a state of illness. At the same time, there are certain similarities and differences among individuals, and there is a relative stability among them [3]. The earliest description of physical constitution can be found in the Yellow Emperor's Classic of Internal Medicine, for example, in the Ling Shu Jing, it is mentioned that "human beings are born with ..... yin and yang", which indicates that since birth, human physical constitution has strength and weakness, yin and yang. The distinction is made between yin and yang. Another example is "Suwen - The Book of Different Methods and Directions", which describes that people living in different regions (East, West, South, North and Central) have different geographical environments and different dietary habits, which in turn lead to differences in the physical constitution

acquired by people in each region, and because of the differences in physical constitution among people, the choice of treatment for diseases will also be different, as in. "The central one, whose land is flat to wet ..... its treatment should be guided to press the massage ..... also from the central out". From this we can see that the ancients had a very profound understanding of the physical constitution, and the theory of physical constitution was widely applied to the prevention and treatment of disease.

In addition, in the Treatise on Miscellaneous Diseases of Typhoid Fever, Zhang Zhongjing also introduced the concepts of physical constitution, such as "wine guest family, dead blood family, strong breast, frail breast, full breast, thin breast". For the same disease or even the same kind of symptoms, there will be some differences in the dosage of prescriptions, drug selection, and treatment methods in order to achieve better treatment results because of the differences in the patient's physique. Another example is that Zhu Danxi advocates the "nourishing yin school", which believes that yin deficiency constitution exists more in the classification of human constitution, so yin deficiency constitution should be applied to nourish yin medicine to improve the therapeutic effect. The insights of successive generations of medical practitioners on constitutionality also provided a very valuable basis and experience for the research, application and development of TCM constitutionality in later generations. Modern TCM physiology is mainly based on the standard of "TCM Physiology" written by Prof. Wang Qi (1), who adopted the nine points method to classify physique into nine types, namely, pinghe, yang deficiency, yin deficiency, qi deficiency, blood stasis, damp-heat, air-depression, phlegm-damp, and special endowment. This is not only a condensed summary of the ideas of the previous physical constitution, but also a breakthrough in the field of TCM physical constitution. The classification of patients' physique according to "Chinese Medicine Physiology", and the addition of physiological theory of treatment in clinical treatment of diseases, are of great benefit to the prevention and treatment of diseases.

### **3. TCM physical research of vertigo**

Vertigo is a common clinical condition, which refers to the impairment of spatial orientation of the body resulting in motor or positional illusion, and mainly includes psychosomatic vertigo, peripheral vertigo and central vertigo. The prevention and treatment of vertigo has been the focus of clinical attention, while vertigo is more described as a symptom in Chinese medicine. Looking at vertigo from the perspective of somatic doctrine, certain somatic interventions for the prevention and treatment of vertigo, and different interventions to treat different vertigo somatic can effectively reduce the incidence and recurrence rate of vertigo.

#### **3.1 Correlation study of the somatic distribution characteristics of vertigo**

Sultan [4] et al. studied 948 patients with vertigo according to Wang Qi's 9 points of body constitution and found that Yang deficiency was the main type of body constitution in vertigo patients, while Qi deficiency and Yin deficiency were also more common, and the actual body constitution was less common. Wang Jiayi [5] conducted a questionnaire survey on 260 patients with vertigo and found that qi deficiency was the main type of vertigo, with multiple types of vertigo being common. This is also in accordance with the principle of "no deficiency does not make vertigo", which is stated in Jing Yue's book: "In the case of vertigo, deficiency is the main type of vertigo, while phlegm and fire is only one or two out of ten".

#### **3.2 Correlation study of physical characteristics under different types of vertigo**

Guo Haiwei [6] A questionnaire survey was conducted on 230 patients with cervical vertigo using the Clinical Information Collection Form, the Cervical Vertigo Symptom and Function Assessment

Scale, the TCM Physique Classification and Determination Form, and the Clinical Symptom Evaluation Scale for Vertigo, and the frequency of the nine types of physique was 66 cases (28.7%) of Yang deficiency, 38 cases (16.5%) of Qi deficiency, 36 cases (15.7%) of Phlegm-damp, 26 cases (7%) of Damp-heat, 15 cases (6.5%) of Qi-yu, 14 cases (6.1%) of Yin deficiency, 14 cases (6.1%) of Blood stasis, and 15 cases (11.3%) of Blood stasis. 15.7%), Damp-Heat 26 cases (11.3%), Qi-Yu 16 cases (7%), Special Endowment 15 cases (6.5%), Yin-Void 14 cases (6.1%), Blood-Stasis 14 cases (6.1), and Harmony 5 cases (2.2%).

Jian Wang [7] the general data and body type of 161 patients with benign paroxysmal positional vertigo were recorded in detail, and the analysis concluded that the highly prevalent body types of this disease were qi deficiency and phlegm dampness. And the distribution of qi deficiency quality was greater in females than in males, while the distribution of phlegm dampness and damp heat quality was greater in males than in females.

Chen Xiaodong [8] conducted a physical survey on 156 patients with vestibular peripheral vertigo, and concluded that 57 cases (36.5%) of Qi deficiency and 36 cases (23.1%) of phlegm-dampness were the most common physical constitution in patients with vestibular vertigo.

Chen Weiming [9] et al. conducted a TCM constitution analysis on 320 patients with posterior circulation ischemic vertigo and concluded that Qi deficiency constitution was the main constitution type in patients with posterior circulation ischemia.

### 3.3 Correlation between gender, age and body mass of patients with vertigo

Weiming Chen [9] implemented TCM physical identification in 320 patients with posterior circulation ischemic vertigo, and found that the incidence was higher in the elderly than in the middle-aged, and more females than males. Further analysis showed that elderly people over 60 years old were more likely to suffer from Yang deficiency, while the distribution and age composition of men and women showed that the incidence of posterior circulation ischemic vertigo was higher in women, and the number of women with vertigo increased significantly compared with men from middle age to old age. This is also in line with the classical theory of Chinese medicine, as it is said in "Shanggu Tianzhen": When a woman is in her seventh year, the Ren vein is deficient, the Taichong vein is weak, the Tiankui is exhausted, and the earth channel is blocked, so her form is bad and she is childless. The Punching Vessel is the Sea of Blood, and when a woman is in her 7th year, the Sea of Blood is in decline, so she is prone to blood deficiency and head dizziness.

Chen Yuxia [10] A physical survey of 120 patients with posterior circulation ischemic vertigo revealed that in the elderly group over 60 years of age, Qi-deficiency and Yang-deficiency constitutions were predominant, and in the middle-aged group under 60 years of age, Phlegm-damp constitution, Qi-depression constitution and Blood-stasis constitution were predominant. Qi-deficiency and Yang-deficiency constitution were the main constitution types of elderly patients with vertigo, and phlegm-damp constitution was the main constitution type of middle-aged patients with vertigo. This is also consistent with the fact that with the increase of social pressure, middle-aged people drink alcohol, eat fatty food and sit for a long time, so they cannot operate their spleen and produce phlegm and dampness, which makes them prone to phlegm-damp constitution. Qi is the handsome of blood, blood is the mother of Qi, Qi is not smooth, blood does not run, the accumulation of depression into silt, then become blood stasis physique. The elderly people over 60 years old, the essence of the body is on the decline, Yang Qi is not enough, it is easy to become Yang deficiency or Qi deficiency body.

### 3.4 Types of vertigo that different body types are susceptible to

Sudan [4] et al. while classifying 948 patients with vertigo into TCM constitution, further found

that the pinghe constitution was susceptible to cardiac causative vertigo, hypertension, and benign paroxysmal positional vertigo; the qi deficiency constitution was susceptible to persistent postural perception dizziness, cardiac causative vertigo, hypertension, and benign paroxysmal positional vertigo. Qi-yu body type is prone to cardiac vertigo, cerebral infarction (posterior circulation), cervical spondylosis, hypertension, migraine, benign paroxysmal positional vertigo, vestibular migraine; phlegm-damp body type is prone to cardiac vertigo, Meniere, cerebral infarction (posterior circulation), hypertension, hyperlipidemia, benign paroxysmal positional vertigo, vestibular migraine; special endowment body type is prone to hypertension; blood stasis body type is prone to posterior circulation ischemia, cerebral hemorrhage, The Yang deficiency constitution is prone to cardiac vertigo, cerebral infarction (posterior circulation), sequelae of cerebral infarction (posterior circulation), cervical spondylosis, hypertension, and benign paroxysmal positional vertigo; the Yin deficiency constitution is prone to cardiac vertigo, cerebral infarction (posterior circulation), hypertension, and benign paroxysmal positional vertigo; and the Damp heat constitution is prone to benign paroxysmal positional vertigo and vestibular migraine. From the above conclusion, it can be seen that although the pacified constitution is better endowed by nature, it is also prone to cardiac vertigo, hypertension, and benign paroxysmal positional vertigo if it is not nourished by nature. At the same time, it can be found that although the physique is different, they can also suffer from the same diseases, and the diseases are different, but they can also have the same physique. This also reflects the idea of "seeking the root of the disease" and "treating the same disease differently" in Chinese medicine, so when the diseases are different, we can consider drugs and prescriptions with the same effect if the physique is the same.

### 3.5 Summary of the characteristics of the somatic part

The author searched CKNI for the first screening topic "constitution" and the second screening topic "vertigo" or "dizziness", and a total of 19 papers were initially screened. 4-13The total number of dizziness cases included in this paper was 2067, including 91 cases of Ping He, accounting for 4.40%; 516 cases of Qi Deficiency, accounting for 24.96%; 280 cases of Yin Deficiency, accounting for 13.55%; 431 cases of Yang Deficiency, accounting for 20.85%; 100 cases of Damp Heat, accounting for 4.84%; and 215 cases of Qi Yu, accounting for 4.84%; The percentage of the patients with Qi-yu quality was 215 (10.40%), phlegm-damp quality was 281 (13.59%), blood stasis quality was 159 (7.69%), and special endowment quality was 24 (1.16%). See Table 1

Table 1: Characteristics of physical distribution

Main responsible person for the literature	Total number of cases	Peaceful quality	Qi deficiency quality	Yin deficiency	Yang deficiency	Damp Heat	air-depressed texture	phlegm and dampness	Blood stasis	special endowment
Sudan [4]	948	53	163	146	203	41	124	128	86	4
GuoHaiwei [6]	230	5	38	14	66	26	16	36	14	15
Jian Wang [7]	161	4	37	18	17	8	21	35	20	1
Chen Xiaodong [8]	156	8	57	17	10	8	14	36	4	2
Chen Weiming [9]	290	0	127	68	77	5	25	6	12	0
Chen Yuxia [10]	120	15	32	9	13	7	13	18	11	2
Deng Hua [11]	162	6	62	8	45	5	2	22	12	0

From this summary, we can conclude that the distribution of the physical constitution of vertigo patients is most dominated by the Qi deficiency constitution, which basically accounts for nearly a quarter of the total, followed by the Yang deficiency constitution. Overall, the deficiency constitution

accounts for 60% of the overall constitution, which shows that the overall constitution of patients with vertigo is more deficient, which is also in line with the view that "for vertigo, the deficiency constitution accounts for eight to nine percent, while the phlegm and fire constitution is only one to two out of ten".

#### 4. Application of somatic theory in the prevention and treatment of vertigo

The study of body composition in TCM is mainly used for the prevention and treatment of diseases. In clinical practice, it is very important to pay attention to the patient's physique to prevent vertigo, which is also in line with the idea of "treating the disease before it happens" in TCM, and to prevent the disease by improving the physique. In the treatment of diseases, physical constitution is also a very important factor to be considered when prescribing medicine. For example, in the book of "Medical Zhengzhuan - Dizziness", it is said that "if a person is fat and white and has vertigo, the treatment should be to clear the phlegm and lower the fire first, and to supplement the qi; if a person is black and thin and has vertigo, the treatment should be to nourish the yin and lower the fire, and to bring the agent to suppress the liver".

Li Qingxue [11] treated vertigo by identifying the deficiency of body constitution, fatness and leanness, and presented four types of patients: fat but deficient, fat but solid, thin but deficient and thin but solid. Liu Ting [12-13] The combination of TCM somatic identification care and emotional care for patients with cervical vertigo showed that compared with conventional care, the combination of TCM somatic identification care and emotional care for patients with cervical vertigo significantly improved their emotional state, increased their psychological adaptability, and facilitated their physical recovery. It also shows that the intervention of TCM constitution not only includes herbal treatment, but also various therapies such as acupuncture, tui-na, and diet therapy.

#### 5. Summary

Vertigo is not only a common and frequent clinical disease, but also has complicated causes, and some patients are prone to recurrence and emotional and sleep problems, which affect their normal life and work. In recent years, with the rapid development of TCM somatology, the treatment of vertigo can play a positive role in the prevention and treatment of vertigo by considering the physical factors of patients.

At present, TCM somatic treatment for vertigo is still at the theoretical and experimental stage, and because of the small sample size of the experiments, it is subject to bias and chance. However, with the emergence of various biotechnologies in the new era, it is indispensable to further study the relationship between TCM somatology and human pathogenesis from the perspectives of DNA, RNA, hormone levels and other modern biology, in order to quantify and objectify it. In addition, nowadays, the theory of "treating the untreated disease" has been recognized by most people, and major TCM hospitals have set up "treating the untreated disease" departments, of which the theory of constitution is an integral part. The road to improve the combination of physical research and clinical, so as to further improve the system of "treating the untreated", so that more people benefit.

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