

Exploring Post-stroke Epilepsy from the Doctrine of Constitution in Chinese Medicine

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Abstract: *The incidence of stroke disease is high in current society, and there are many secondary complications. Post-stroke epilepsy (PSE) is one of the common complications, which is considered to be the most common symptomatic epilepsy and intractable neurological disease in the elderly. According to related literature, the occurrence of post-stroke epilepsy is related to TCM somatics to a certain extent. Therefore, this study investigates the distribution pattern of post-stroke epilepsy and TCM somatics and analyzes the correlation of its influencing factors, so as to provide new methods and ideas for the prevention and treatment of post-stroke epilepsy by using theories related to TCM somatics to intervene in the early stage of post-stroke epilepsy and to reduce the incidence rate.*

Keywords: Chinese medicine constitution, Post-stroke epilepsy, Evidence typing, Prevention and treatment.

1. Overview of TCM Physique Theory

TCM Physique Theory believes that both innate adherence and acquired formation of the physique are inextricably linked to the occurrence, development, prognosis and regression of diseases, and that human psychological, physiological and morphological characteristics are all traits that stabilize the physique. Regarding the discussion of TCM physique, as early as in the Yellow Emperor's Classic of Internal Medicine, there have been discussions on the differences in human physique, and in the Ling Shu - Yin and Yang Twenty-five People, the first five attributes of the human body were divided into physique, and in the Su Wen - Blood, Qi, Shape and Spirit, the classification of shape and spirit of bitterness and joy, and in the Ling Shu - Hsing Needle, the heavy yang, heavy yang with yin, yin and yang, and yin and yang and adjusted type [1], initially laid the theoretical foundation for the study of Chinese medicine physique. The Eastern Han Dynasty to Zhang Zhongjing's "Typhoid Miscellaneous Diseases" as a representative of the book recorded that the body due to disease attack, resulting in yin and yang qi and blood, viscera and meridians damaged, the formation of a variety of different pathologies. And then proposed different treatment methods according to different physique, so that the theory of TCM physique has been initially applied in clinical practice. During the period from the Three Kingdoms to the Two Songs, the TCM constitution theory contributed to the study of the constitution of special people. Qian Yi's "Direct Recipes of Pediatric Medicine" summarized the three physical characteristics of children. Zan Yin's "Jing Effect Maternity Treasure" described for the first time the physical characteristics of women before and after pregnancy and childbirth, and put forward the physical characteristics of women's "post-partum deficiency"; and Chen Zhi's "Book of Pensioner's Parent Book" gave a more comprehensive discussion of the physical characteristics of the elderly. The four great masters of the Jin Yuan School of Medicine, each of them put forward their own unique academic theories of constitution which are in line with the clinical reality of Chinese medicine. The distinctive features of the medicines used by each family were also based on the bias of the physique formed by the people in the local climate and environment. In the Ming and Qing dynasties, Zhang Jiebin

clearly pointed out the influence of the successive heavenly factors on the strength of the constitution and proposed that "the constitution can be changed and adjusted", Ye Gui proposed the term "constitution" for the first time and summarized the classification of yin and yang attributes of constitution, which deepened the clinical perspective of Chinese medicine in the Huangdi Neijing. The Yellow Emperor's Classic of Internal Medicine deepened the understanding of the differences in constitution from the clinical point of view of Chinese medicine. By this time, the basic theoretical framework of the theory of constitution was basically formed. In modern times, Prof. Wang Qi has summarized the theory of constitution and put forward a complete TCM constitution science based on nine major constitutions [2], and the constitution table summarized by his team has been widely used in clinical practice. Now the Chinese Association of Traditional Chinese Medicine (CATCM) on the "Chinese Medicine Physique Classification and Determination" standard, which also refers to this body mass table, will be divided into Yin deficiency, Yang deficiency, Qi deficiency, phlegm-dampness, dampness-heat, qi depressions, blood stasis, special endowment, and peace and harmony, of which peace and harmony is the normal physique, and the other 8 types of physique is biased physique. Wang Qi believes that the constitution is formed by both innate and acquired influences, and manifests itself as a relatively stable morphological and functional trait of an individual, which often determines the occurrence and development of diseases with different tendencies. Chinese medicine's grasp of constitution is not only limited to treating diseases, but also emphasizes the role of constitution in preventing diseases. According to the idea of preventing disease before it occurs, adopting appropriate health care regimen for the bias of constitution can effectively prevent the occurrence of specific diseases.

2. Overview of Post-stroke Epilepsy

Post-stroke epilepsy is defined at [3] as epilepsy with stroke as the etiology or epilepsy in which the stroke has resulted in "persistent and lasting changes in the brain capable of producing epileptic seizures", for which there is no clear definition. Post-stroke seizures are defined as the occurrence

of at least one epileptiform seizure after a stroke. In short, the diagnosis of post-stroke epilepsy requires recurrent epileptic seizures (at least two seizures), if there is only one seizure, it can only be called a post-stroke seizure. Ancient medical doctors and ancient texts have not clearly recorded and discussed the name, etiology, and mechanism of post-stroke epilepsy. Stroke corresponds to stroke disease in Chinese medicine, and epilepsy corresponds to epilepsy in Chinese medicine, so post-stroke epilepsy should be categorized under the category of epileptic disease in Chinese medicine. "Epilepsy" refers to a recurring disease caused by damage to internal organs and loss of control of the spirit, which is characterized by sudden loss of consciousness, falling down, unconsciousness, upward gaze, salivation, convulsions of limbs, and strange screams, with the main clinical manifestations of waking up as normal. Records of this disease have evolved and developed through the ages, and the Ling Shu - Epilepsy said: "Epilepsy begins to occur, the first anti-stiffness, and thus spinal pain". The view that epileptic seizures are related to congenital factors was expressed by Chen Yan in "Three Causes of Epilepsy", which reads, "Epilepsy is caused by shock and agitation, which makes the visceral qi uneasy, and the salivary saliva arises from depression, which occludes all the meridians (.....) or the dietary disorders, which are inverse to the visceral qi." The occurrence of epilepsy and a variety of factors, such as panic, phlegm saliva, external and dietary disorders. Zhu Zhenheng's "Danxi Xinfu - epilepsy" is cloud "is not phlegm saliva congestion, smothering the orifices" and epilepsy, will be phlegm saliva as an important cause of the disease. "Ancient and Modern Medicine - five epileptic", Gong Xin. Five Eclampsia", Gong Xin wrote: "the original reason, or by the seven emotions of the gas stagnation, or for the six evil dry, or because of the great panic....." book that the onset of epilepsy is nothing more than the seven emotions stagnation, the invasion of foreign evils, the impact of panic and other factors. Therefore, the causes of epilepsy can be broadly categorized into two main groups: one is congenital factors, and the other is acquired factors. Innate factors are mainly due to the lack or abnormality of innate endowment, while acquired factors are mainly due to the feeling of external evils, dietary disorders, and unhealthy emotions and feelings. From ancient times to the present, countless medical scholars have summarized their experiences and pioneered innovations so as to understand and recognize the etiology of epilepsy at a deeper level and provide an effective basis for the treatment of the disease, so the principle of treatment should be summarized as mentioned above.

3. Post-stroke Epilepsy in Chinese Medicine Pattern Distribution and Physical Influence Factors

Physical quality is influenced by both congenital and acquired, both genetic characteristics and acquired accumulation. It is affected by the age factor, and the growth and decline of the body is influenced by the age factor. Different physiques have different types and tendencies to feel diseases and evils. If the internal environment of the physique is disturbed, it will be easy to feel diseases and evils. Deficiency of positive qi and disorder of yin and yang of internal organs can be regarded as the pathogenesis of stroke disease. A check of the literature shows that

phlegm-dampness and blood stasis are the most common physiques in PSE. Wang Wenmin et al [4] believe that in PSE, phlegm and blood stasis run through the whole process, and phlegm evil is the main pathogenesis. Li Yanmei [5] believes that the occurrence of PSE is mostly related to wind, phlegm and blood stasis, and the clinical evidence of wind-phlegm obstruction and phlegm-fire disturbance of God are the major ones. Sun Pingping [6] believes that after stroke, the patient's internal organs are out of order and the divine mechanism is out of use, and phlegm, blood stasis, and fire disturb the clear orifices of the body, leading to the occurrence of epilepsy. From the above, we can find that most of the Chinese medicine symptoms of PSE are related to phlegm, and the common types are wind-phlegm, phlegm-heat, and phlegm-blood stasis. According to TCM, when the internal organs malfunction, phlegm becomes phlegm stagnation and blood stagnation becomes blood stasis, and phlegm and blood stasis become entangled with each other and stagnate in the meridians and collaterals, leading to the occurrence of epilepsy. Therefore, the treatment of PSE should deal with "phlegm" throughout the treatment. Phlegm is one of the important pathologic factors in post-stroke epilepsy, and doctors of different generations have had some opinions on the treatment of post-stroke epilepsy based on phlegm. Xiong Jibai, a contemporary medical doctor, also believes that epilepsy is caused by phlegm disturbing the clear orifices and causing loss of control of the vital organs, and that phlegm moves with the wind and gathers and disperses, leading to recurrent episodes of epilepsy, which are difficult to cure [7]. Species Yulan [8] and others believe that epilepsy is mainly due to the obstruction of fluid transportation due to spleen deficiency, phlegm, and that epileptic seizures are triggered when blood stasis and obstruction of the heart and veins are caused, and they mainly used Dinghao Tang Plus Flavor to treat epilepsy of the wind-phlegm obstruction type. In particular, the symptoms of refractory epilepsy are characterized by phlegm and blood stasis blocking the orifices, and liver depression and qi stagnation, and the stubborn phlegm and blood stasis are present throughout the disease [9]. The symptoms of refractory epilepsy, in particular, are characterized by blood stasis, liver depression and qi stagnation, with persistent phlegm and blood stasis throughout the disease. Xu Nan et al suggested that the etiology of delayed-onset post-stroke epilepsy is mainly due to phlegm and turbid obstruction, which obscures the clear orifices [10]. Yang Guangfu et al summarized the etiology of post ischemic stroke epilepsy, and concluded that the pathology is attributed to the cerebral collaterals, and the causes of the disease are blood stasis, dampness obstruction, hyperactivity of yang, and internal wind, and the pathology is classified into cerebral paralysis and stasis obstruction, hyperactivity of yang, phlegm paralysis and wind, deficiency of qi, and deficiency of yin, according to the course of the disease [11]. Dong Yuqiong et al concluded that the main causes of post-stroke epilepsy were fire inflammation and wind movement, phlegm stasis and obstruction through clinical observation [12]. Yueyun Wang applied statistical methods to study the distribution of patterns of post-stroke epilepsy patients and found that stasis blockage of cerebral collaterals was a common pattern of post-stroke epilepsy, followed by liver and kidney yin deficiency [13]. Lin Yu studied the clinical pattern distribution of post-stroke epilepsy in patients with hemorrhagic stroke and found that

phlegm-heat internal occlusion was the most common pattern [14]. Chen Ming closely related the occurrence of epilepsy to the mechanism of "Shaoyang disease" in the six meridians, namely, "disadvantage of the Shaoyang pivot mechanism", which provided a broader idea for clinical diagnosis [15]. According to the correlation between constitution and pattern, the pattern is easy to develop, which indicates that the distribution of constitution varies among different patterns of patients. Patients with post-stroke epilepsy have more symptoms related to "liver", "spleen", and "blood stasis" than patients with simple stroke, which provides a basis for correcting patients' biased physical characteristics at an early stage of clinical work. This provides a basis for clinical work to correct patients' biased physical characteristics, which can help to prevent the onset of post-stroke epilepsy in a timely manner, improve the quality of life of patients, and enhance clinical efficacy by adjusting the patients' physical characteristics. (Figure 1)

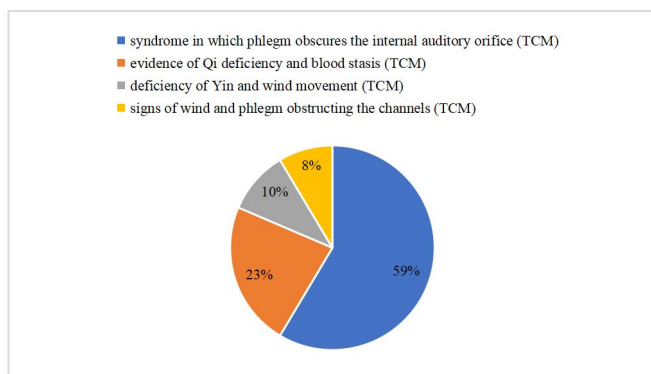


Figure 1: Percentage of different types of post-stroke epilepsy

4. Intervention for Physical Prevention and Treatment of Post-stroke Epilepsy

The causes of epilepsy include congenital factors, injuries caused by seven emotions, brain injuries and other diseases. The key to the disease mechanism is phlegm and turbidity internal obstruction, unevenness in the qi of the organs, yin and yang bias, involvement of the divine mechanism, and loss of control of the original spirit; the disease is mainly located in the heart and the liver; phlegm is the main factor in epilepsy, and the disease is caused by the wind, fire and the phlegm and stasis internal obstruction, which clouds the clear orifices; the heart and the brain and the divine mechanism malfunction is the root of the disease, and wind, fire, phlegm and stasis are the symptoms. Wind, fire, phlegm and stasis are the symptoms. The etiology of the disease is different, which means that the type of disease suffered by the patient should also be different from person to person, and patients with different constitution may form different variations of the disease even under the influence of the same pathogenic factors, so the clinical manifestations of epilepsy are complex and diversified. Based on the theoretical foundation of TCM constitution theory, we can carry out constitution identification for PSE patients, adopt appropriate treatment plan according to the different constitution, and implement individualized diagnosis and treatment for patients, which is more in line with the actual treatment needs of patients, and can provide more effective preventive and intervention measures for PSE patients. Physique identification is the handhold of "treating the future disease" and provides a

channel for "treating the future disease". Under the guidance of the idea of "treating the disease before it occurs", when the disease has not yet occurred, it is very desirable to activate the early intervention mechanism to control it in a timely manner and prevent it from occurring. In conclusion, it is important to grasp the etiology and mechanism of post-stroke epilepsy by different constitution, and timely use of medication according to the evidence, which can play a preventive and therapeutic role in the prevention and treatment of the epileptic disease caused by post-stroke patients. Therefore, the idea of utilizing the TCM theory of constitution to prevent and treat PSE is an important combination of theory and clinical practice. The identification and treatment of PSE from the TCM constitution is worthy of further clinical research and practical application (Table 1).

Table 1: Distribution of Chinese Physique Types and Preventive Health Care

body type	take care of one's emotions and will	diet	regulate one's daily life
placid quality	Maintain a calm state of mind	Rational combination of coarse and fine grains	regular pattern of life
qi deficiency quality	Don't overwork yourself.	Foods that are mild and warm in nature and strengthen the spleen and vital energy	Promote a combination of work and rest, do not overwork
yang deficiency quality	Keep a positive mindset	Foods that are sweet and warm to tonify spleen yang and kidney yang	Living environment with mild warm color is preferred Properly conducted in sunny environment
Yin deficiency quality	Enhanced self-cultivation project	Choose sweet, cool and moisturizing foods	Cultivate your patience. Live in a quiet environment and take a good nap.
phlegmatic	Participate in social activities and develop a wide range of interests.	Use food that strengthens the spleen and facilitates transportation, expels dampness and resolves phlegm	The living environment should be dry, not wet
damp-heat property	It's good to stabilize your mood and try to avoid worrying.	Choose sweet-cold or bitter-cold food that clears and resolves dampness	Dry and well-ventilated rooms
hematoma (internal blood stasis)	Being calm in matters, trying to overcome impatience.	Choose foods that have the effect of regulating qi and blood	The room should be warm and cozy, and should not be dark and cold for a long time.
pugnacious	Optimistic and cheerful, getting along with others	Choose foods that have the effect of regulating qi and relieving depression	Maximize outdoor activities and socialization
endowment	While avoiding allergens, you should also avoid stress.	Balanced, appropriate mix of coarse and fine grains, meat and vegetables	Be regular and get enough sleep

5. Summary and Prospect

With the aging of population and the development of healthcare, the number of PSE patients is increasing, and seizures in turn increase the risk of death in stroke patients,

leading to neurological dysfunction, poor prognosis, prolonged hospitalization, and delayed rehabilitation in stroke survivors, and adding a heavy burden to social healthcare [16]. Along with the increasing number of stroke survivors, post-stroke epilepsy is gaining attention and has become one of the hot topics in neurological research. However, due to the complexity and diversity of its clinical manifestations, and the related pathogenesis is not yet perfect, so clinicians are not rare to under-recognize PSE. Existing common treatment means is oral antiepileptic drugs, most of the patients' clinical seizures can be controlled, but the price is expensive, and more adverse drug reactions, affecting the prognosis and quality of life of the patients, if you can correctly use the identification of the body to grasp the overall occurrence, development and regression of the disease, and discriminatory use of traditional Chinese medicine treatment methods for bias body to take targeted, individualized interventions, which can make the human body meridians and internal organs, qi, blood, yin and yang to achieve a balance. This can make the body's meridians and internal organs, qi, blood, yin and yang reach balance. Therefore, when considering the correlation between the various risk factors of PSE and the pattern of PSE, incorporating the factor of constitution to further guide the identification of PSE and the use of medication can greatly enrich the ideas and methods of Chinese medicine in the treatment of PSE, and provide more effective preventive and interventional measures for PSE, as well as further increase the preventive and therapeutic effects of post-stroke epilepsy.

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