

Treatment of the acute phase of stroke based on the theory of Ying and Wei and internal and external wind

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Abstract: Stroke disease is characterized by high morbidity, mortality, disability, and recurrence, which seriously endangers human life and health. At present, clinical western medicine has certain effect on the treatment of ischemic stroke, but the treatment of its acute phase still has deficiencies such as strict time window limitation or leading to the risk of bleeding. In the author's opinion, loss of harmony between Ying and Wei is one of the basic pathogenic mechanisms in the acute phase of stroke, and harmonization of Ying and Wei is one of the important treatment rules for the acute phase of stroke. In this article, the author will expand the exploration on the basis of the existing pathological mechanisms and evidence types to provide new ideas for the treatment of acute phase of stroke in Chinese medicine.

1. Introduction

Stroke is the main clinical type of cerebrovascular disease, a group of cerebrovascular diseases caused by organic brain injury, including ischemic stroke and hemorrhagic stroke, of which ischemic stroke accounts for a large proportion, a study reported that in 2018, ischemic stroke accounted for 81.9% of stroke inpatients in China [1]. It is characterized by high morbidity, mortality, disability and recurrence rates, which seriously endanger human life and health [2]. Currently, the incidence of ischemic stroke in economically developed countries worldwide is gradually decreasing every year, while the incidence in China is still on the rise [3], which brings a heavy economic burden to China and affects the quality of life of the nation, making stroke a major public health concern in China [4].

Western medicine is effective in the treatment of ischemic stroke, but there are still shortcomings in its acute treatment such as strict time window for thrombolytic therapy; anticoagulants and antiplatelet drugs may lead to bleeding risk [5]. The understanding of stroke in Chinese medicine has a history of thousands of years and has been summarized and developed by generations of physicians, and the pathological factors are wind, fire, phlegm, qi, stasis, and deficiency. Most of the treatments are based on pacifying the liver and quenching the wind, clearing heat and dispelling phlegm, benefiting qi and invigorating blood, nourishing yin and submerging yang, and activating blood circulation. In addition to internal medicine, acupuncture, rehabilitation and other TCM treatments also play an active role. [6] Recent studies have found that the clinical effect of TCM treatment in the acute phase of ischemic stroke is often better than that of Western medicine alone, and the incidence of adverse effects is lower. However, the etiology and pathogenesis of stroke are complex, especially

in the acute phase, which is characterized by critical illness, rapid changes in symptoms, and a variety of symptoms, which often leads to controversial clinical evidence and misses the best time for Chinese medicine treatment. Therefore, the author will expand the investigation on the basis of the existing pathogenesis and evidence types to provide new ideas for the treatment of acute stroke in Chinese medicine.

2. History of Stroke Disease

2.1 The "external wind" doctrine

The causative factors of stroke disease have been discussed in detail in the Nei Jing. Since the Nei Jing, it is believed that stroke disease is mainly caused by external wind, and it is mostly discussed from the perspective of "internal deficiency and evil". Suwen - wind theory" cloud: "wind, the long of all diseases, to its change, is also other diseases, there is no regular formula, but to have wind also." It is pointed out that wind evil comes from outside and injures people to cause disease[7]. Sui - Chao Yuan Fang, on the basis of the previous generation of doctors, discussed the fifty-nine types of wind diseases, and described them in detail in the "Treatise on the Origin of the Diseases - Volume 1 - Wind Diseases", such as wind addiction: "the symptoms are amusing and unaware of the person, there is a faint sound in the throat, and the tongue is strong and unable to speak"; Tang - Sun Si invites the theory of Chao Yuan Fang, and according to the different symptoms caused by the wind evil The wind prickly heat, wind Yi, partial dryness, wind paralysis four categories, such as "the preparation of urgent thousand gold to formula - the wind - on miscellaneous wind state first": "partial dryness, half body paralysis, muscle partial do not use and pain, speech does not change wisdom is not chaotic, wind prickly heat, body without pain, limbs do not collect, wisdom chaos is not very. windy person, am not know the person, the pharynx in the choke choke. Tongue strong cannot speak " and so on [8], "class evidence treatment cut" also cloud: "northwest high cold wind strong, true qi deficiency, suddenly for the in, is the name of the true in true in the wind, although the wind from the outside in, also by the internal deficiency Call the wind." This all indicates that the onset of stroke is related to the geographical environment, the northwest wind is strong, easy to hurt people and stroke. As pointed out in the Book of Internal Medicine, "winter is good for paralysis and convulsions", indicating that strokes occur more often in winter. Modern research also shows that the incidence of cerebrovascular accidents has a certain relationship with weather and seasonal factors, the incidence of cold winter is higher than other seasons, and the incidence of cold areas in the north is higher than that of warm areas in the south [9]. Therefore, the occurrence of stroke is closely related to the external environment, which is in line with the Chinese medicine saying that "Heaven and man correspond to each other", and the human body needs to adapt to the changes in the external natural environment, otherwise, once the Yin and Yang of the body and the external Yin and Yang are out of balance, "the Qi of the evil will be deficient Otherwise, once the balance between the body's yin and yang and the external yin and yang is lost, then "where the evil comes together, its qi will be deficient" and stroke will easily occur. In the use of prescriptions and medicines, the main focus is on the prescriptions and medicines for dispelling wind such as the "Prepared Urgent Thousand Gold Essential Formula", such as the "Renewing Life Soup"; at the same time, phlegm-clearing, orifice opening, Chung-Tu, and qi-regulating methods are added, such as Yan Youhe's "Jisheng Fang" and "Taiping Huimin and Pharmaceutical Bureau Formula", which recorded such prescriptions as Suhe Xiang Wan and Zhi Bao Dan. In addition, various methods such as acupuncture, blood pricking, massage, fumigation, and nose jerking were applied to various periods of stroke disease onset, which illustrates the diversity of treatment methods for stroke disease in that period, and the medical practitioners in that period gave full play to their wisdom and created various different treatment methods for the treatment of stroke disease.

2.2 "Internal wind" doctrine

After the Tang and Song dynasties, medical practitioners began to use "stroke" as a separate name for the disease, referring specifically to symptoms such as paraplegia, sudden fainting and slanting of the mouth and eyes. Chen Wuzhe was the first physician to discuss "stroke" as a disease name, and his "Three Causes of Extreme One Illnesses - Volume 2 - Sympathetic Stroke Theory" said, "When a person is struck by an evil wind, there are few who do not die. Therefore, it is difficult to heal when it enters the organs, such as its meridians and collaterals are empty and injured, for half body paralysis, paralysis of the hands and feet, saliva tide faint plug, mouth and eyes sing oblique, skin is not benevolent, paralysis exhaustion contraction seclusion. so the first on stroke also", and modern stroke disease is basically close to a more comprehensive understanding. The Tang and Song dynasties were skeptical of the former understanding of stroke disease as "the wind evil", and have elaborated their own views, such as Danxi main "phlegm and dampness generate heat", Dong Yuan main "this gas from the disease", Wan Su that "The cause of stroke has undergone a great change in the understanding of the cause of stroke, with more emphasis on internal factors. At the end of the Yuan Dynasty, Wang Cui, a medical doctor, pointed out the concept of "true stroke", that is, stroke caused by the evil of wind; and another concept of "class of stroke", that is, stroke caused by fire, by phlegm, by deficiency and other internal factors, was proposed by the three sons of Jin Yuan. In the Ming Dynasty, Zhang Jinyue put forward the argument of "internal injury and accumulation of loss" and advocated the theory of "non-wind", which was not related to external wind, making a great breakthrough in the understanding of the etiology and pathogenesis of stroke. Li Zhongzhi clearly proposed that the internal organs in stroke could be divided into closed evidence and decompensated evidence. In the Qing dynasty, Ye Tianshi began to explicitly use the term "internal wind" in his theory, and clearly delineated the difference between the causes of "external wind" and "internal wind", thus deepening and supplementing the understanding of the etiology and pathogenesis of stroke disease. It is a great progress in the understanding of stroke disease that the cause of stroke is no longer limited to external wind. Wang Qingren believed that stroke was caused by "qi deficiency and blood stasis", and created the classic formula of "tonifying Yang and Returning Five Soups" to treat hemiplegia, which is still in clinical use today.

Contemporary Chinese medicine is influenced by the theory of "internal wind" after the Tang and Song dynasties and the modern medical theory of the blood vessels of stroke disease, which believes that atherosclerosis (AS) is the common pathogenesis of most cardiovascular diseases, and that blood pressure disease, hyperlipidemia, obesity, insufficient intake of fruits and vegetables, lack of exercise and smoking are the main cardiovascular and cerebrovascular risk factors. The discussion of wind also focuses more on internal wind, i.e., the liver is considered to be an important hub for regulating the movement and balance of qi and blood in the body. If the pivotal role of the liver is not favorable, Yang Qi becomes hyperactive and rebellious, blood follows the Qi rebellion and rushes up to the brain orifice, which is clouded by the rebellious Qi and blood, and the function of the brain orifice is lost, the tendons and veins are blocked, and the limbs are unable to move, resulting in stroke, ignoring the role of external wind in stroke.

2.3 Theory of camping and defense

The theory of Ying and Wei is a common TCM theory used by medical practitioners to treat diseases at their root. According to the "Golden Guide to Medical Science", "Ying is the essence of blood, and Wei is the swift and fierce of gas, and in terms of its positioning of the body, it is called Qi and blood, and in terms of its popular use, it is called Ying and Wei. This shows that Ying and Wei is the external manifestation of the function of Qi and Blood, and if Ying and Wei are in harmony, Qi and Blood will run smoothly, Yin and Yang will be in balance, and the body will not easily fall ill[10].

The theory of Ying and Wei is often mentioned in the Nei Jing when explaining the pathogenesis of motor and sensory abnormalities. The principle of the pathogenesis of wind diseases in the Neijing is the entry of evil by deficiency. It is said in the "Spiritual Pivot - Stabbing the real evil": "The deficient evil is partial to the body half, its entry is deep, and it resides in the Ying and Wei, and when the Ying and Wei are slightly weakened, the real qi goes away, and the evil qi remains alone, and the development is partial withering". This suggests that the onset of stroke is based on the weakness of the yingwei and the deficiency of the evil guest.[11]. On this basis, Zhang Zhongjing first advocated that the onset of stroke is blamed on the "emptying of the ligaments and veins" and the entry of evil spirits into the middle. Yu Jiayan elaborated on the onset of stroke with Yingwei, "The Law of Medical Doctors - Treatise on Stroke" said: "The evil of the eight winds, all named deficiency evil, the person's meridians and veins Yingwei is strong, there is no way to enter the". "But the wind in the people, must be from the Rongwei and into". Suwen - wind theory" cloud: "the Wei Qi has condensed and not work, so its meat has not benevolent also"[12]. The Qing dynasty Huang YuanYu "four sage heart source" said: "the limbs of the yang of the origin, the Ying and Wei of the start and stop blood hidden in the liver, gas unified in the lungs, and travel in the meridians, then said Ying and Wei. The "Suwen - reverse regulation theory" pointed out: "Rong Qi deficiency is not benevolent, Wei Qi deficiency is not used, Rong and Wei are deficient, is not benevolent and not used, meat as before". Both affirm the close relationship between the harmonization of Ying and Wei and the functional activities of the limbs. The Suwen-Paralysis Book says: "If the disease is prolonged and deep, the movement of the Ying and Wei is astringent, and the meridians are not unblocked." If the disease enters for a long time, disturbing the Ying and Wei, or if the external evil disturbs the internal, injuring the Ying and Wei, stagnating the Ying and Blood, the Wei Qi stays and follows it, the fluid is lost in transmission and metabolism, gathering and generating phlegm, the phlegm and stasis block each other, the Qi does not flow smoothly, blocking the pulse channels, which is easy to damage the veins and the brain, increasing the incidence of stroke disease.

The modern medical doctor Ding Yuanqing believes that Ying Qi transforms blood into veins, and Wei Qi follows the body, when sick, it transforms into fire and heat, and smolders in all directions, and when Ying Qi is not normal, phlegm and stagnation will accumulate as accumulation [13], and the "accumulation of veins" formed at this time is what modern medicine calls "atherosclerosis and plaque (AS)". Xiao Weigang et al.[14] also believe that the abnormalities of Ying-Wei rendezvous and biochemistry are closely related to the formation mechanism of AS, and that harmonizing Ying-Wei will help adjust the body's immune mechanism, protect the endothelial function and improve microcirculation, which has positive significance for the prevention and treatment of AS. Modern medicine considers atherosclerosis and plaque (AS) as an important pathological basis and risk factor for the development of stroke, which shows that the relationship between the pathological mechanism of stroke disease and the imbalance of ying-wei cannot be ignored.

3. Loss of harmony between Ying and Wei is closely related to the internal and external wind pathogenesis of stroke

However, the etiology and pathogenesis of stroke are complex, especially in the acute stage, with critical condition, fast-changing symptoms, and a variety of symptoms.[6], the pathogenesis of the acute stage of stroke cannot be fully explained simply from internal and external wind or Ying and Wei. The pivotal point of the pathogenesis of internal and external wind in stroke disease. In some patients, there is a lack of proper regulation, carelessness in work and living, deficiency of vital energy or old age, so that the qi, blood, yin and yang are gradually lost, the essence is not full, unable to fill the internal organs and nourish all the bones. In view of the fact that "Ying is produced in the middle jiao, and Wei is produced in the lower jiao", and "Suwen - Jing-vessel special treatise" says: "Food gas enters the stomach and disperses essence in the liver." If Ying and Wei are not in harmony, Ying

and Blood will stagnate and become phlegm, which will fight with wind and fire, and the draining function of the liver will become dysfunctional, and the liver wind will move and disturb the brain and marrow. Or if there is a loss of harmony between Ying and Wei, Yin deficiency or Kidney water deficiency may cause the liver to lose control of the phase fire of Shao Yang and internalize the wind. This is an important basis for the pathogenesis of stroke. At the same time, the loss of harmony between the Ying and Wei, and the lack of solidity of the Wei surface, the wind evil takes advantage of the deficiency and enters, while the Qi deficiency and blood stasis, the inability to resist the external evil, so that the evil stays without diarrhea, the two winds merge, the external wind leads to the internal wind, resulting in the imbalance of Yin and Yang, the blood reverses with the Qi, crosses the meridians, and obscures the brain orifices, resulting in the onset of stroke.

4. Summary

Therefore, the author believes that in the clinical diagnosis and treatment of stroke disease, the relationship between "yingwei" and "wind" can be emphasized. The internal and external winds are often caused by the disease. It is believed that the loss of harmony between Ying and Wei is closely related to the pathogenesis of internal and external wind, based on which the treatment should be to benefit Qi and invigorate Blood, to harmonize Ying and Wei, and to dispel wind and open the ligaments.

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