

# *The treatment of depression after stroke based on the theory of "five essence"*

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**Abstract:** With the increasing number of people suffering from stroke, the important complication of poststroke depression (Post stroke depression, PSD) is also getting more and more attention. Liver loss and liver qi stagnation are the key pathogenesis of post-stroke depression, and deficiency of heart, liver, spleen and kidney is the main pathological basis of depression after stroke. "Five essence place" theory points out that "essence qi and liver worry", heart, liver, spleen, kidney four viscera essence qi deficiency, deficiency phase, "and in the liver worry", there will be low mood, interest decline, slow thinking and other symptoms of depression after stroke, clinical can be treated from the liver.

## 1. Introduction

With the development of modern medical technology, stroke mortality gradually reduced, but, part of patients due to improper treatment or treatment is not timely, may appear after stroke depression (Post stroke depression, PSD) complications, depression with high prevalence, high disability rate after stroke, high suicide rate and high recurrence rate, seriously affect the patient and family living standards, traditional Chinese medicine in theory and diagnosis and treatment of depression after stroke has its unique advantages, can complement the treatment of modern medicine. Therefore, this paper mainly discusses the theoretical basis of treating depression after stroke from the liver theory under the guidance of "five essence institute", and adds a test case to prove it, in order to provide reference for the theoretical research and clinical diagnosis and treatment of this disease.

## 2. Depression after stroke

Post-stroke depression, that is, post-stroke depression, is a kind of emotional abnormality that is mainly characterized by depression, low mood, decreased functional activity and the delay of thinking [1]. Depression after a stroke Depression occurring after a stroke belongs to a type of secondary depression. Although there is no relevant records of depression post-stroke in ancient books of traditional Chinese medicine, depression patients after stroke are mostly accompanied by symptoms such as low mood, which corresponds to the related discussion of "depression syndrome"

of traditional Chinese medicine ("depressed state": the patient's whole mental state is tired, indifferent, indifferent to external things, and slow reaction [2]), Therefore, depression after stroke should belong to the category of "depression syndrome" in traditional Chinese medicine [3].

The pathogenesis of depression is closely related to "stroke" and "depression syndrome" [3], Coincident with the Yu Zheng part [4]. Post-stroke depression has both the pathological basis of stroke disease and the symptoms of depression syndrome. Stroke is the cause, yu syndrome is the result, yu syndrome is more hurt by emotion, the anger of the seven emotions is the most easy to cause disease: anger injury liver, liver loss, and cause liver qi stagnation, over time change fire, namely fire depression [5]. Therefore, the cause is always injured, the disease lies in the liver, and is closely related to the heart and spleen. There are virtual and real, the initial disease is more real, long disease from real to deficiency, causing the heart, liver, spleen, blood and kidney deficiency and nourishment [1]. The deficiency of heart, liver, spleen and kidney is the main pathological basis of depression after stroke, while liver loss and liver qi stagnation are the key factors of post-stroke depression [3].

### **3. From the "five fine combined" analysis from the liver theory of the treatment of depression after stroke basis**

"Five essence institute" is the "five essence", that is, the essence of the five zang organs, the basic material for the normal physiological activities of the five zang organs, and also the nutritional guarantee for the tissue organs and spiritual activities related to the five zang organs. "Spirit is happy in the heart, sad in the lungs, sorrow in the liver, fear in the spleen, and fear in the kidney, is that five and, deficiency and phase is also." [6] "And", "Shuo" cloud, "and from also", the original text clearly expounds the reasons for the combination of the five essence: "virtual and the same", that is, the deficiency of the essence of the five viscera is the prerequisite for the "harmony" of the essence. Specifically, if the essence hidden in one of the five zang organs is weak, the body will mobilize the essence of other zang fu organs to maintain the normal operation of the dirty physiological activities. "Harmony" is a protection mechanism, and also the essence of the "five essence".

"Essence qi and in liver is worry": If the liver function is deficient, the liver will appear "essence qi and in liver", indicating that liver function deficiency can lead to depression. In the book "Yellow Emperor Jing Asked", if the liver essence deficiency, stimulate the essence of the five viscera and the dirty, the liver of the lord god lost, not only will not have a general plan, but also will be silent and worry.

"Qi qi in the liver", liver qi leads to the heart and the function related to emotion regulation, and then increases the possibility of depression. (Mother disease and son) "God" put that "the heart hides the god, the pulse god." The heart is proud, the heart of the spirit is sufficient, the heart can be the main blood and god, the heart is sufficient is happy. If the essence of the heart is insufficient, the essence of the five zang organs is not in the heart, then the mind is lost in prosperity, abnormal consciousness, "the heart deficiency is sad" is one of the manifestations. The heart is the main god, is the basis of the divine machine activities [7], "Xunzi · blind" pointed out that "the heart.... the Lord of the god", that the heart is not only in the body, but also dominate the god; "Huangdi Neijing" said "the heart, the king of the king, god out yan", "the heart of god" [8] The heart is the house of god, "the heart is the main god" is the spiritual activity and physiological function of the heart. The heart is the place of spiritual activities: the heart is the king of the monarch, the house of the gods, and the cloud "the heart of the heart, the Lord of the spirit". "Blood, the god of people", the heart Lord blood, blood is the material basis of spiritual activities, and the heart main blood

function is abnormal, there will be consciousness change. Modern medicine also believes that the heart acts on the secretion of the brain by pumping blood, affecting human function [9]. The heart not only has the function of pumping blood, but also pumps blood and the secretion of hormones to regulate the spirit. Although there is no hormone in traditional Chinese medicine, it also confirms the correct theory of the mind.

"Jing qi is combined in the liver", liver qi leads to the impaired function related to emotion regulation, which increases the possibility of depression.

"Jing qi is combined in the liver", and the liver qi sheng leads to the impairment of lung function related to emotion regulation, which further increases the possibility of depression.

"Jing qi is combined in the liver", and the liver qi sheng leads to the impairment of kidney function related to emotion regulation, which further increases the possibility of depression.

In short, depression after stroke, the disease is in the liver, and the heart, spleen, lung and kidney, which is the most closely related to the heart, worry and fear, emotional tension are the cause of this disease.

#### 4. Check the case in the corner

Patient, female, is 68 years old. Initial diagnosis: 3 months ago for cerebral infarction hospitalization, after the right side activity, patients depressed, quiet, upset irritability, insomnia, dream, accompanied by chest bilges, hot flashes night sweat, dry mouth, fatigue, poor, stool not forming, tongue pale red moss yellow greasy, tongue body fat, tongue edge tooth marks, left inch close floating string and heavy according to the weak, left foot heavy count, right inch slippery, right close ruler heavy and slippery. A diagnosis of post-stroke depression (liver depression and spleen deficiency syndrome) was made. Prescription: 30g raw keel (fried first), 30g raw oyster (fried first), 15g, 15g, 15g, decocted in water, 1 dose on 1 day, a total of 7 doses. Second diagnosis: the patient with dry mouth, bitter mouth, irritability symptoms disappeared, the symptoms of hot flashes and sweating were significantly reduced, but still had insomnia, many dream, fatigue, red tongue and yellow moss, pulse and thin string. Prescription: above to know the mother, yellow cypress, add 20g jujube kernel, 30g, decocted in water, 1 day 1 dose, a total of 7 doses. Three diagnosis: the patient's sleep returned to normal, upset and dream, dry mouth and bitter mouth and other symptoms disappeared, the remaining symptoms were significantly improved, and the effect was obvious. The effect is not more square, continue to take for 2 months, discomfort symptoms basically disappeared.

According to the language: depression belongs to the medical description of "depression disease, plum nuclear gas" and other categories. The disease is in the brain, the brain for the marrow sea, the house of yuan god. The Lingshu meridian said: "the kidney hidden zhi, shed zhi." Huangdi Neijing element asked "" the heart, the king of the official, god out yan, the Lord is unknown twelve officials danger." And according to the " spirit Shu evil guest "" the heart, the Lord of the viscera, the spirit is also, its dirty and strong, evil can tolerate also. Tolerance of the heart hurt, heart hurt to god, God went to die. Therefore, the evil lies in the heart, all lies in the heart envelope." In this case, the patient is deficiency of viscera, Yang is not change, phlegm turbidity endogenous, block veins, brain and stroke. Sputum stasis, pulp sea loss, and yuan Yang loss, kidney deficiency, pulp sea loss, and the disease of depression. The patient's stroke due to wind, fire, phlegm, blood stasis, qi and blood against the brain, leading to the imbalance of viscera, blood and Yin and Yang, coupled with the loss of the quality of life, resulting in poor mood, liver qi stagnation, qi drainage, liver depression and fire, so low mood, quiet, upset, irritability, insomnia and more dreams. Liver wood by soil, soil obstructing wood depression, spleen deficiency can not transport and wet water, so the emergence of dry mouth and bitter mouth, fatigue, poor appetite, stool is not formed. The spleen and stomach

of the pulse is weak, phlegm heat and the tongue coating is yellow and greasy, the tongue body is fat and there are tooth marks. Sputum dampness block, phase fire does not fall, Yang does not enter the Yin, that is, the right pulse is floating and heavy, the left pulse moves the string number and the force is weak. On the fire, the right pulse rises, the phlegm heat rises and the pulse slides; on the liver Yang is high, the left pulse rises and the force is weak. Diagnosis of post-stroke depression, liver depression and spleen deficiency syndrome. Studies in the literature show that liver depression and spleen deficiency is the main syndrome type of depression, accounting for 34.19% of the depression syndrome type [10].

Add raw keel and raw oyster to the original formula, clear the heat and nourish the Yin, nourish the liver and kidney, and decrease the fire. Raw keel return to the heart, liver and kidney meridian, raw oyster to the liver, gallbladder, kidney meridian, yellow cypress, kidney meridian, the mother into the lung, kidney meridian, raw ox knee into the liver and kidney meridian. Second diagnosis patients still have insomnia, many dreams, fatigue symptoms, to know the mother yellow cypress, add jujube kernel, the mind. Jujube kernel to liver, gallbladder, heart, first back to the heart, liver meridian. The symptoms of the patients were significantly improved, the pulse was relieved, and the front was followed.

## 5. Conclusion

This paper studies the "five essence" and its theory analysis from the liver theory of depression after stroke. The stroke depression is closely related to the heart, lung and kidney, liver function deficiency. It also makes the rest of the four dirty related to emotion regulation function impaired, which lead to depression after stroke. Clinical test proved that the treatment of depression after stroke to the liver meridian drugs. Therefore, it is of clinical significance to treat the depression of stroke under the guidance of "five essence" theory.

## References

- [1] Wei Rongyou, Yang Yanping, Wu Xiaodi, et al. Based on the discussion of "five-state human" [J]. *Integrated traditional Chinese and western medicine and painstaking efforts Electronic Journal of Management Diseases*, 2017,5 (31): 24 + 26.
- [2] Qi Xianghua, Teng Jing, Wu Xiaodi, and so on. *Theory and practice of depressed state from the perspective of modern Chinese medicine* [M]. Beijing: People's Military Medical Publishing House, 2014.
- [3] Yang Xiaohua. A superficial exploration of the etiology of depression after stroke [J]. *Guangming Traditional Chinese Medicine*, 2017,32 (12): 1802-1804.
- [4] Wang, YingyingHu, XiwenHan, JinfangScalabrini, AndreaHu, YutingHu, ZhiguoTan, ZhonglinZhang, Jianfeng Northoff, Georg. Time is of essence-Abnormal time perspectives mediate the impact of childhood trauma on depression severity[J]. *Journal of psychiatric research*, 2021, 137(1).
- [5] Buijck B I, Zuidema S U, Eijk S V, et al. Is patient-grouping on basis of condition on admission indicative for discharge destination in geriatric stroke patients after rehabilitation in skilled nursing facilities? The results of a cluster analysis[J]. *BMC Health Services Research*, 2012(1).
- [6] Tian Daihua. *Huangdi Neijing asked* [M]. Beijing: People's Health Publishing House, 2005.
- [7] Ding Yuanqing. Exploring the pathogenesis of stroke based on the theory of cardiac mainstay blood vessels [J]. *Shandong Journal of Traditional Chinese Medicine*, 2018 (01): 1-3.
- [8] Yang Tao, Zhao Mingjing, Meng Wei, et al. The scientific basis and clinical application of "mind and god" [C]. *Proceedings of the 13th Academic Symposium of the Fourth Experimental Medical Professional Committee of the Chinese Society of Integrated Traditional Chinese and Western Medicine*, 2016: 22-26.
- [9] Deng Tietao. The scientific nature of the mind [J]. *New Traditional Chinese Medicine*, 2003, 35 (1): 15-16.
- [10] Xu Lesi, Chen Yu, Wang Mengsha, et al. Study on TCM clinical syndrome differentiation of depression [J]. *Journal of Hubei University of Traditional Chinese Medicine*. 2017, 19 (3): 37-40.