

Research Progress on the Combination of Acupuncture and Drugs for Treating Sequelae of Stroke

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Abstract: *Stroke is an acute cerebral blood circulation disorder caused by sudden rupture or blockage of cerebral blood vessels resulting in ischemia, hypoxia and even necrosis of brain tissues, which leads to a series of physical symptoms, such as hemiplegia and speech disadvantage. With the continuous development and improvement of Chinese medicine, needle-medicine combination therapy has become an important means of treatment and has achieved remarkable results in its clinical treatment. Therefore, by searching a large number of literature studies in recent years, a review of the research progress of acupuncture and medicine in the treatment of post-stroke sequelae is presented.*

Keywords: Sequelae of Stroke, Needle and drug combination, Research progress.

1. Introduction

Stroke is characterized by high lethality and disability, and can lead to a variety of sequelae, seriously threatening people's quality of life, causing a great economic burden to the family and society, and the onset of the disease is becoming younger and younger [1]. The proportion of people with motor dysfunction in the affected limbs among the sequelae of stroke in China is as high as 80% to 90% [2]. Therefore, only timely and rational intervention can alleviate the sequelae symptoms to the greatest extent possible, improve the quality of patients' survival, and reduce the burden for the society and families.

After a long period of accumulation, Chinese medicine has formed a characteristic and effective diagnosis and treatment method for stroke disease. Under the guidance of Chinese medicine theory, traditional Chinese medicine, acupuncture, massage and other treatments start from the pathogenesis of stroke disease, and their treatments can effectively alleviate the clinical symptoms, which is of great significance to the recovery of post-stroke related diseases [3]. Therefore, this paper will focus on the application of Chinese medicine and acupuncture in the treatment of stroke-related sequelae, with a view to improving patients' conditions, reducing the disability rate and effectively promoting patients' rehabilitation.

2. Chinese Medicine's Description of the Name of the Disease of Stroke

Stroke is mainly characterized by sudden loss of consciousness, half-body movement disorders, slanting of the mouth and eyes, and unfavorable speech, etc. In mild cases, only sudden slanting of the mouth and eyes can be seen. It is called "stroke" because of its rapid onset, rapid changes in condition, and the characteristics of wind. For the first time, the term "stroke" was used as a disease name in Synopsis of Golden Chamber, and the symptom of hemiplegia was referred to as "stroke".

3. Chinese Medicine's Description of the Mechanism of Stroke Disease

As the first of the four ancient terminal diseases, stroke disease, due to the limitations of understanding, resulting in the presentation of its mechanism as a developmental process from the surface to the root. In the Tang and Song dynasties before the main "internal deficiency evil" theory, that stroke due to deficiency of blood and qi, viscera and meridians are not moistened, so the evil invade and lead to the onset of disease; Jin Yuan medical practitioners believe that the deficiency of qi and blood is the root of stroke, and then the formation of phlegm-dampness and blood stasis leads to stroke, so they put forward the theory of "internal wind" which is representative of the theory of "positive qi deficiency", "phlegm-dampness generates heat" and "wind is born in the heat, and wind is the symptom of heat"; the Ming and Qing medical practitioners put qi and blood throughout the stroke disease, mostly from the theory of "qi deficiency and blood stasis". Therefore, it is proposed to put forward the theories of "internal wind", such as "Zhengqi is in deficiency", "phlegm-dampness generates heat", and "wind is born from heat, heat is the root and wind is the symptom", etc. The medical practitioners of Ming and Qing dynasties put the qi and blood into the whole process of stroke, and most of them discussed the theory of "qi deficiency and blood stasis". Modern medical practitioners advocate that deficiency of qi and blood is the main pathogenesis of stroke, with wind, fire, phlegm and blood stasis as the main causes at the initial stage, and deficiency and blood stasis as the main causes at the later stage, eventually leading to qi and blood reversal, imbalance of yin and yang and upturning of the brain, which results in the overflowing of blood out of the blood vessels or paralysis of the cerebral veins, leading to a stroke [4].

4. Combination of Acupuncture and Drugs in the Treatment of Stroke Disease

4.1 Traditional Chinese Medicine Treatment for Stroke Disease

After a long history of accumulation of Chinese medicine for the treatment of stroke disease has a wealth of experience. The "Xiaoxuming Decoction", which is known as "the key agent of stroke", is effective in treating the evidence of yang qi deficiency and evil attack on meridians [5]. Under the guidance of the "internal wind theory", "Daqinjiao Decoction" was used to treat the syndrome of wind-evil junior middle school meridians. Under the guidance of the "theory of qi deficiency and blood stasis", "Buyang Huanwu Decoction" was used as the main treatment for qi deficiency and blood stasis type. The treatments for stroke are different for different disease mechanisms, which is the characteristic method of Chinese medicine, so Chinese medicine has its unique advantages in treating stroke.

According to Wang Qingren, Loss of Yuan-Qi is the root of hemiplegia, and the method of Supplementing Qi and Activating Blood should be used. Chen Yan et al [6] treated patients with post-stroke sequelae with the addition of Buyang Huanwu decoction based on conventional western medicines to Supplementing Qi and Activating Blood, and the results showed that the effect of the combined traditional Chinese medicine group was significantly better than that of the simple western medicine group. Bai Rumei [7] used a self-designed prescription to treat patients with post-stroke sequelae based on the therapeutic principles of Tonifying Deficiency, Eliminating Phlegm and Removing Blood Stasis. The formula uses Moschus to Kaiqiao pass close; Safflower, Rhizoma Ligustici Chuanxiong, Peach Kernel and Radix Paeoniae Alba activate Blood circulation and eliminate Blood stasis; Carthami Flos, Chuanxiong Rhizoma, Persicae Semen and Paeoniae Radix Rubra to promoting blood circulation and removing blood. Fresh ginger and old scallions to Tongyang Huoxue. The control group was treated with western medicine, and the results of the study showed that the clinical effect of the self-prescribed formula was remarkable. Hao Ming [8] used traditional Chinese medicine soup to treat ischemic stroke patients, and the results showed that traditional Chinese medicine soup could effectively improve the patients' self-care ability, reduce the incidence of adverse reactions, and the patients' satisfaction with the treatment was significantly improved, which has a high clinical application value.

4.2 Acupuncture Treatment for Stroke Disease

4.2.1 Acupuncture treatment with millipercentrifuge needles

Yangming meridian as the main point for acupuncture treatment of stroke hemiplegia [9], "treating the flaccidity with the Yangming meridian alone", Huang Mao [10] treated patients with post-stroke hemiplegia with acupuncture on the Yangming meridian as a treatment rule, which significantly improved functional limb movement. Xiong Guoping [11] used the Xingnao Kaiqiao acupuncture to treat patients with hemiplegia after stroke to improve the upper and lower limb motor function significantly, and the ability to get daily life greatly improved, indicating that the the Xingnao Kaiqiao acupuncture is effective in the treatment of post-stroke sequelae; Acupuncture also significantly relieves spasm of blood vessels, increasing blood supply and reducing nerve damage [12].

4.2.2 Eye acupuncture therapy

Eye Acupuncture Therapy, first created by Prof. Peng Jingshan, is a unique therapy that treats diseases by stimulating the acupoints around the eyes, which has the effect of dredging meridians and collaterals, activating Blood. Qu Muyuan [13] used eye and body needles combined with tonics to treat 74 cases of hemiplegia in stroke and found that all scores of the eye and body needles group were better than those of the tonics group, indicating that the effect of eye needles combined with tonics was more significant. Liu Han et al [14] used eye acupuncture to treat hemiplegia in stroke, and the results showed that all the efficacy scores of the eye acupuncture treatment group were better than those of the body acupuncture group, suggesting that the efficacy of eye acupuncture in treating hemiplegia in stroke is better.

4.2.3 Scalp acupuncture therapy

Cephalic Acupuncture Therapy refers to the stimulation of specific areas of the head to achieve the effect of invigorating meridians, harmoniz qi and blood, thereby reducing the ischemic and hypoxic state of the brain tissue and promoting the recovery of hemiplegic patients [15]. Cao Yunyan et al [16] Zhu's scalp acupuncture for the treatment of hemiplegia in stroke found that this acupuncture transmitted stimulation signals to the deep part of the brain through the pathway of the Du meridian into the brain, which could effectively promote the repair and regeneration of brain tissues and improve the limb motor dysfunction. Lu Yanni et al [17] found that scalp acupuncture is not only effective but also safe and effective in the treatment of hemiplegia in stroke.

4.2.4 Acupoint injection therapy

Acupoint injection therapy, also known as hydro-acupuncture therapy, is the injection of liquid medication directly into the acupoints to play the dual role of acupoint stimulation and drug stimulation, which can significantly relieve muscle spasms and promote the recovery of limb functions after hemiplegia stroke. Yuan Yanhui [18] showed that compared with conventional treatment in Western medicine, acupoint injection of Xueshuantong can significantly regulate the motor function of electromyographic signals on the surface of the limbs of post-stroke patients, thus effectively improving the motor function of the affected limbs. Guo Lihua et al [19] used acupoint injection of vitamin B and lidocaine in the treatment of stroke, and the effective rate of 93.33% was significantly better than that of the control group, indicating that the efficacy of acupoint injection therapy in improving unfavorable limb movement after hemiplegia in stroke is obvious.

4.2.5 Electroacupuncture therap

Electroacupuncture therapy can significantly enhance needle sensation through electrical stimulation, effectively reduce intracranial inflammatory reaction, improve cerebral blood circulation, reduce brain cell apoptosis, promote neurological recovery, and effectively improve the prognosis of hemiplegia in stroke [20]. Wang Molei et al [21] found that electroacupuncture can significantly repair damaged nerves and promote the recovery of motor function of the affected

limb compared with ordinary acupuncture. Dai Guojun [22] used electroacupuncture to treat patients with stroke hemiplegia, and the results suggest that electroacupuncture can improve the limb motor function of patients with stroke hemiplegia, and it has a definite therapeutic effect on the treatment of stroke hemiplegia.

4.3 Needle and Drug Combination Therapy for Stroke Disease

The efficacy of needle and drug combination in the treatment of stroke disease. Li Xinyang et al [23] treated hemiplegia in stroke by combining acupuncture with Xuefu Zhuyu Decoction, and found that the improvement of limb function was more significant and the clinical efficiency was higher when the two were combined compared with the treatment of traditional Chinese medicine alone. He Xiaoru [24] and others found that the needle and drug combination in the treatment of patients with hemiplegia in stroke had a significant effect on the improvement of the patient's functions compared with Western medicine alone, suggesting that the needle and drug combination is an effective therapy for the treatment of hemiplegia in stroke. Zheng Houjiang [25] used a combination of Chinese and Western medicine therapies to treat patients with cerebral stroke, and the results showed that the acupuncture combined with Western medicine group was better than the Western medicine group in improving all functions of the patients. Lu Shaowei [26] used acupuncture combined with conventional Western medicine to intervene in stroke patients, and the results showed that the combined group was more effective than the Western medicine group alone in improving the ability to perform daily life and improving the quality of life of stroke patients.

5. Conclusion

Acupuncture combined with traditional Chinese medicine treatment is effective, acupuncture to invigorating meridians for the method, traditional Chinese medicine to Supplementing Qi and Activating Blood for the method. Needle and drug combination can effectively improve the motor function of the affected limbs, reduce swelling and pain, and improve the quality of daily life of patients with stroke, and it is inexpensive, with little toxic side effects, and easy to be accepted by patients. The combination of the two enriches the clinical treatment. However, there are many shortcomings in the study of the disease. 1) Sample error cannot be ruled out due to the small sample sizes in some of the studies reported; 2) There is still a lack of standardized diagnostic and efficacy assessment criteria, although their efficacy assessment criteria are included in each study. Traditional Chinese Medicine has its unique advantages in the field of medicine, prompting people to explore it continuously. In the future research, more attention should be paid to traditional medical therapies such as acupuncture and medicine and their organic combination with modern medicine, to establish a unified evaluation standard, so that a variety of therapies are judged more scientifically, so that Chinese medicine acupuncture and moxibustion gradually to the world.

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