

Acupuncture Treatment for Poststroke Fatigue (PoSF) Research Progress

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Abstract: With the increase of the prevalence of stroke, the mental health and quality of life of patients after stroke have also attracted wide attention in recent years. Fatigue is a common sequelae of stroke, and its inducing factors have not been clear so far, which can affect patients' sense of social return and family life happiness. The author reviewed the literature in recent years found acupuncture, moxibustion, ear method of stroke fatigue, this paper will summarize the acupuncture treatment of stroke fatigue in recent years, and raise the problems to be solved, provide more ideas and diagnosis and treatment plan for clinical treatment and research.

1. Introduction

Stroke is a common sudden and rapid progress of cerebrovascular disease, seriously affect the patient quality of life and social activities, to family and society and its serious economic burden [1], in recent years, the incidence of stroke is younger trend, with improved medical technology, also means that stroke patients have higher survival rate, so the management of patients after stroke has a long way to go. Studies have shown that poststroke fatigue is one of the most common complications of stroke, with the incidence rate ranging from 25% to 85%. The clinical table is mainly manifested by susceptible fatigue, depression, lack of vitality and less subjective activities. Due to the complex pathogenesis of post-stroke fatigue, there is no clear and effective treatment method.” Master of Acupuncture” said: “the spirit is not keep, bother not sleep, fight acupuncture to collect work.” In recent years, studies have also confirmed that acupuncture has unique advantages in treating post-stroke fatigue and has definite efficacy, which is summarized as follows.

2. The Cause of the Disease

2.1 TCM Etiology and Disease Machine

Traditional Chinese medicine has no clear definition of the disease, but according to the records of ancient books, it is not difficult to find after stroke fatigue can belong to the category of “deficiency”, the cause of the disease summarized as “empty”, “ask, show calm theory” and records: “limbs lazy, the spleen through not also”, “brief” think “extremely virtual, damage kidney essence also”. Thus, the ancient doctors that after stroke fatigue mainly and spleen and kidney is closely related, in addition, “liver, strike”, liver main muscles and muscles, and liver hide blood, blood deficiency can't nourish human muscles and muscles, easily fatigue, “Liuzhou medical” “disease, must be from the liver”, liver dysfunction, is also easy to produce mental fatigue. In conclusion, the Chinese medicine believes that the causes of fatigue after the stroke is the damage of the viscera and the lack of vital qi, the function of the deficiency is the spleen, the liver, and the treatment effect.

2.2 Understanding of Post-Stroke Fatigue in Western Medicine

Modern studies have found that the pathogenesis of post-stroke fatigue can be affected by various factors, such as neurotransmitters, inflammatory factors, blood pressure and blood glucose, and the onset site. The metabolism of neurotransmitters can change according to time. Studies show that the pathogenesis of post-stroke fatigue may be closely related to neurotransmitters such as dopamine, serotonin and norepinephrine. [4][5], and neurotransmitters participate in various human behavioral processes, such as emotion and sleep, thus participating in the occurrence of post-stroke fatigue. Stroke can trigger inflammatory response, and inflammatory factors not only affect the outcome of stroke but also determine its prognosis. Post-inflammatory response factors are activated early to release [6]. Yu Xuetao and others found that CPR in patients with annual ischemic stroke fatigue is significantly increased in [7] compared with patients with ischemic stroke. The question of whether the site of onset affects post-stroke fatigue remains open, with some studies showing a higher probability of post-stroke fatigue in posterior circulatory stroke, but others showing that the site of onset is not related to the occurrence of the disease. In addition, relevant studies have found that post-stroke fatigue is closely related to glucose, and increased blood sugar levels can lead to an increase in fatigue and [8], which may be related to the consumption of important energy substances in the body. Of course, modern studies show that the onset of post-stroke fatigue is also closely related to sleep disorders, Li Wenhui found that sleep disorders is an important risk factor for post-stroke fatigue [9].00

3. Pin-Acupuncture Treatment

Meridian system is a biological information system, acupuncture is through the meridian feeling, reconcile the viscera qi and blood, so that the body to Yin pingyang secret physiological health state of a kind of operation, acupuncture is an important part of TCM treatment, dredge meridians, upright and adjust the three effects of Yin and Yang also in the treatment of fatigue after stroke.

3.1 Head Needle

Head needle is an important part of the modern microneedle system, refers to the traditional acupuncture theory and doctors, on the basis of clinical experience, in modern anatomy, neurophysiology, and other disciplines, using acupuncture method to stimulate the head acupoints or specific hole area, so as to stimulate the cerebral cortex to achieve the prevention and treatment of disease of a kind of acupuncture technique.

000Tang Qiang [10] found by acupuncture certain hole area can produce “needle”, to stimulate the cerebral cortex, through the rats divided into three groups, surgery, model, needle, 8 each group, the preparation of acute cerebral infarction fatigue rat model found rat brain related area monoamine neurotransmitter content significantly reduced, and needle after a period of time 5-HT and DA content increases, also effectively improve the fatigue after cerebral infarction. Transcranial repeated stimulation method refers to the special technique to achieve the corresponding amount of stimulation, Make acupuncture act on functional brain areas, Thus a technique to treating disease, The mechanism is related to the neurotransmitter delivery, [11] et al divided the eligible patients into 30 acupuncture group and western medicine therapy group, Head needle group selected hundred will, ning god, emotional area and foot transport sense area for rapid twist, The twist frequency is greater than 200 times per minute, The western medicine group was treated with oral gluin and vitamin B1, Comparing treatment fatigue scales after 4 courses, Head needle combined with transcranial repeated acupuncture method has an obvious effect on improving trunk fatigue symptoms, Oral glutinesin and vitamin b1 are not effective in improving physical fatigue. The above results indicate that the clinical effect of head needle intervention after stroke fatigue is outstanding.

3.2 Pin

“Shenque cloth qi”, the abdominal needle as the theoretical basis, through acupuncture to stimulate the corresponding specific acupoints or acupoint areas in the abdomen, to reconcile the viscera Yin and Yang so as to achieve the treatment of diseases, mainly used for the treatment of neurological and motor system diseases. Related studies have confirmed the exact [12] effect of abdominal needle therapy in treating chronic fatigue. Some studies have shown that the pathogenesis of fatigue after stroke is closely related to inflammatory factors, and fatigue [13] can be treated by regulating inflammatory factors. 000Zhan Lechang [14] will 70 cases of stroke fatigue patients are divided into two groups, the control group basic stroke secondary prevention treatment and routine rehabilitation training, treatment group on the basis of abdominal needle treatment, 2 weeks after treatment multidimensional fatigue questionnaire and fatigue severity scale (FSS) (MFI-20), and detect serum inflammatory factors, the results show that abdominal needle therapy combined with rehabilitation training can not only improve patient fatigue, but also can reduce the serum inflammatory factor concentration, and its effect is far more than the pure rehabilitation training group.

4. Moxibustion Method

Moxibustion therapy source can be traced back to the classics, is with mugwort burning thermal effect through certain acupoint stimulation to achieve a traditional treatment, needle is not, moxibustion, moxibustion as an ancient and painless therapy is more easily accepted by patients, is an important part of external treatment, “umbilical cord, life also”, “three but five thin”, when choosing moxibustion, often choose god que, Zusanli acupoints,

modern medicine also shows that moxibustion related acupoints can effectively improve fatigue symptoms.

OYu Wenqi [15] according to the diagnosis of stroke sequelae patients, the control group of patients to give nursing and routine treatment, the observation group of patients with moxibustion Zusanli therapy on the basis of the treatment of the control group, the results showed that patients almost red skin, blisters and other adverse reactions and the observation group of patients fatigue symptoms improved significantly. Treatment group Shenque point moxibustion for 30 minutes, The control group acupuncture hand Sanli, Taixi, Zusanli and other acupuncture points, After treatment, comparing the daily life rating scales of the two groups, The Fatigue Assessment Scale, The Fatigue Severity Scale, Results Improvement occurred in both groups, However, the effect of moxibustion Shenque group is better than that of acupuncture group, Can better improve patients' physical and social fatigue dimension [16], Lai Xiaoling [17] et al. randomly divided the fatigue patients after stroke into treatment group and control group, On the basis of the traditional rehabilitation training, the treatment group applied lightning-fire moxibustion to Shenque point and bilateral Zusanli point for 30 minutes, The degree is appropriate to the skin flushing, The control group had no other treatment, After a course of treatment, it was found that thunder fire moxibustion and Zusanli can not only improve the state of personal fatigue, And at the same time, patients can better return to social activities. Studies have also shown that ginger moxibustion can effectively improve fatigue and depression, greatly improve the sleep quality of patients [18].Zhao Y [19] et al. established a rat fatigue model by weight-bearing swimming, randomly divided into normal control, model and moxibustion groups, and measured serum, IL-6 and IL-10 levels in gastrocnemius muscle and frontal cortex tissues by enzyme-linked immunosorbent assay (ELISA).After moxibustion intervention, the serum and frontal cortex IL-10 levels were significantly increased ($P < 0.05$), and the IL-10 / IL-6 ratio of serum and frontal cortex was increased significantly ($P < 0.01$),0000

00Compared with acupuncture, moxibustion is more easily accepted by the population. Modern research shows that moxibustion has the effect of thermal radiation and enhancing immunity, [20] [21], which can relax tendons, regulate qi and blood, and act on the whole body through the meridian sense transmission system. All the evidence of qi and blood block and qi and blood deficiency can be moxibustion.

5. The Ear Needle

0Li Yali [22] found that both wick straw ear point application and Wang Shuxing seed ear point application can significantly relieve the fatigue degree of fatigue patients during stroke recovery, promote the body recovery, but the treatment effect is more ideal. Li Zhuangmiao [23] et al. concluded at the end of January by pressing Shenmu point, subcortex, cardiac point, liver point, endocrine point, etc., that the attention and severity of fatigue patients after stroke were improved.0

Modern research shows that ear needle treatment disease mechanism mainly concentrated in the nerve theory, guo nerve distribution is rich, electrical stimulation ear area can be in the brainstem and central vagal pathway activity changes, can produce similar to the vagal nerve stimulation, may also by regulating the autonomic nervous system and participate in the regulation of the neural function of [24].

6. Combination Therapy

Combination therapy is a method that combines two or more treatments according to the individual situation of the patient to improve the treatment effect.

6.1 Acupuncture and Acupuncture Moxibustion

OYu raise point compatibility disease treatment for a long time, fan Xiangxu [25] through 60 cases of spleen and kidney deficiency chronic fatigue patients randomly divided into two groups, treatment group to acupuncture back yu point and combined with moxibustion Shenque point treatment, control group to common acupuncture joint moxibustion bilateral three and three Yin cross, treatment after six courses of TCM syndrome, FS-14 scale and clinical efficacy, the results found that acupuncture back yu point and moxibustion Shenque point treatment the outcome indicators are better than conventional acupuncture and moxibustion treatment.

OZhou Linfang [26] et al will, in 90 patients, Randomized into 3 groups, They are needle group (quChasheng new acupuncture combined with common moxibustion); Needle acupuncture group (control group with new acupuncture method); Treatment group (remove blood stasis sheng new needle combined with large moxa moxibustion, 30 cases), Clinical efficacy was finally evaluated according to the FSS score after two weeks of treatment, The results indicated the best efficacy in the treatment group, Macley [27] divided the 90 patients into three groups, The umbilical cord therapy group, respectively, The common acupuncture group was used, respectively, The umbilical cord therapy group plus the common acupuncture group, Moreover, there were no significant baseline indicators before treatment, Clinical efficacy was assessed after 4 courses, The total response rate was significantly higher in the umbilical therapy group and the common acupuncture group than in the other two groups, The comparison of the efficacy observation index is consistent with the total response rate conclusion.

6.2 Tank Combined with Acupuncture

OZhou Y [28] will be divided into needle group and drug group, each group of 64 cases, both groups have general treatment, needle group on the basis of needle valley, tang, sea, guan yuan, Zusanli acupoints and spine on both sides of the bladder cupping, drug group oral sertraline hydrochloride, compound amino butyrate vitamin E capsule, magnesium gluconate oral solution symptomatic treatment, both groups of patients after 5 weeks compared stroke special living scale, the conclusion is better than drug group, and needle group treatment more lasting.

OIn the waist cupping mechanism has not been determined, but also put forward some theories, on the one hand, cupping therapy can improve blood flow, remove toxins, restore neuroendocrine balance, improve oxygen supply and tissue perfusion [29], and cupping can affect the balance between sympathetic and parasympathetic nerve, and histamine, serotonin neurotransmitter content, these may be a positive impact on the fatigue state after stroke the mechanism, but the specific way of not clear, remains to be further research.

7. Conclusion

To sum up, improper or not timely fatigue treatment after stroke can easily affect the recovery of the body after stroke. There is no standardized and effective treatment method in Western medicine.

The main treatment methods are symptomatic treatment, such as antidepressant, anti-anxiety, rehabilitation training, trace elements and psychological therapy. Through a series of therapies, traditional Chinese medicine can achieve the role of strengthening the essence, invigorating qi and promoting blood circulation, and awakening the mind, from correcting the fatigue state of stroke patients and promoting the recovery of patients.

Despite the outstanding efficacy of acupuncture in this disease, However, the author still found the following deficiencies in the review and analysis of the literature in recent years: (1) the lack of publicity on post-stroke fatigue at the present stage, As a result, patients and hospitals pay insufficient attention to the disease, Often considered as a mental illness, Thus, the delayed treatment of the disease, Affect the prognosis; (2) Needle acupuncture and moxibustion are effective in treating this disease, However, there is no unified standard for its TCM syndrome differentiation and classification, The underlying mechanisms of treating diseases are also lacking; (3) In selecting the patients, Most did not consider the baseline comparability of gender, disease course, risk factors, underlying disease, and TCM syndrome differentiation, And the subjective scale was used to evaluate its clinical efficacy, The evaluation means is relatively simple, Therefore, the conclusions drawn may be more subjective; (4) Lack of follow-up after treatment, Many patients are divorced from the medical environment, Treatment initiative and compliance have deteriorated. The above problems urgently need to be further discussed and solved.

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