

# Clinical Effect of Buyang Huanwu Decoction in Treating Sequelae of Stroke

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**Abstract: Objective:** To explore the clinical effect of applying Buyang Huanwu Decoction in the treatment of sequelae of stroke.

**Methods:** The research work was carried out in our hospital, which was from November 2018 to November 2019. A total of 200 patients were selected for treatment during this period, all of whom were patients with sequelae of stroke, and 100 patients were grouped randomly. One group was given conventional acupuncture treatment as the control group, and the other group was given acupuncture combined with Buyang Huanwu Decoction treatment as the test group. The clinical effects of the two groups of patients were evaluated.

**Results:** After treatment intervention, the treatment rates of the test group and the control group were 94.00% and 78.00%, respectively. The Fahl-Meyer score and Barthel index score of the test group were significantly higher than those of the control group, and the quality of life score was higher. There are significant data differences, which was statistically meaningful ( $P < 0.05$ ), and the test group has a better effect.

**Conclusion:** The clinical effect of applying Buyang Huanwu Decoction in stroke patients is significant, which can improve the clinical symptoms and quality of life of patients, which has positive meaning for clinical development.

## 1 Introduction:

Stroke is more common in clinical practice. Not only do patients have a higher mortality and disability rate, but they also have a higher clinical morbidity. Patients have characteristics such as acute onset, and they mostly occur in middle-aged and elderly patients <sup>[1]</sup>. With the continuous development of medical technology in our country, the fatality rate of stroke patients in our country is gradually decreasing, but the disability rate is gradually increasing. In this context, how to promote the treatment effect of patients with stroke sequelae and improve the quality of life of patients have become particularly important <sup>[2]</sup>. On this basis, the study is taking patients with sequelae of stroke in our hospital as an example to explore the clinical effects of applying the Buyang Huanwu Decoction method.

## 2 Objective

Stroke patients have serious sequelae, which will cause severe damage to the patient's limb function and reduce the patient's quality of life. On this basis, the clinical effect of applying Buyang Huanwu Decoction is explored, mainly by comparing acupuncture and combination of acupuncture and Buyang Huanwu

Decoction.

## 3 Method

### 3.1 General information

Take the patients with sequelae of stroke in our hospital from November 2018 to November 2019 as an example to carry out the research work. A total of 200 patients were selected and divided into two groups using random number grouping method, namely the test group and the control group. Patients in the control group were given simple conventional acupuncture treatment and the number of patients was 100, including 13 males and 87 females. The age range of the patients was selected from 56 to 87 years, with an average age of  $(66.95 \pm 5.40)$  years. Patients in the test group were given acupuncture treatment combined with Buyang Huanwu Decoction. There were 100 patients, including 110 males and 90 females. The oldest patient was 88 years old and the youngest one was 55 years old, the average age was  $(65.93 \pm 6.09)$ . ) and there is no significant difference in the data of the two groups of patients which is comparable.

**Inclusion criteria:** the application of integrated traditional Chinese and Western medicine diagnosis methods, the diagnosis of western medicine shall be

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judged according to the "Key Points for Diagnosis of Various Cerebrovascular Diseases" formulated by the Fourth National Cerebrovascular Disease Academic Conference of the Chinese Medical Association, and the diagnostic results of imaging examinations of all patients all showed sequelae of stroke; all patients knew and agreed to participate in this study; all patients had Qi deficiency and blood stasis syndrome.

**Exclusion criteria:** patients with history of mental illness; patients with poor compliance; patients with other major diseases.

### 3.2 Research methods

Patients in the control group were given conventional acupuncture treatment, and the main acupoint choices were Sanyinjiao, Zusanli, Hegu, Neiguan, Yangling and Quchi. In the specific acupuncture process, moderate or intense stimulation should be given to patients based on the patient's tolerance. Direct acupuncture at Hegu and Quchi points, Dicang point through Xiache point, Sibai point through Chengqi point, Fengchi point through Fengfu point, Temple point through Quanliao point, Heliao point through Juliao point, Yangbai point through Yuyao point and Cuanzhu point through Sizhukong point. Three acupoints are selected for each needle insertion, each time the needle is kept for 20 minutes, and the interval between needle insertion is 5 minutes. The patient is treated once a day, and the treatment is continuous for 30 days as a course of treatment.

Patients in the test group were treated with acupuncture combined with Buyang Huanwu Decoction, and the operation of the acupuncture method was the same as that of the control group. The Buyang Huanwu Decoction mainly includes: 10g each of spatholobi, earthworm, leech, peach kernel, 15g each of red peony root, angelica, pueraria lobata, safflower, salvia, 30g each of breviscapine, sagebrush, and 50g of astragalus. It needs to be added or subtracted according to the actual situation of the patient, if the patients had symptoms of Qi deficiency, it should be given 10g Biantiaoshen and 15g Atractylodes macrocephala; If the patients were hemiplegic, it should be given 30g mulberry sticks and 15g cassia sticks; If the patient's limbs are numb, it should be given 10g of orange, 15g of chonamine and pinellia. Put all the medicines into 0.8L of clean water for torment. It should be taken when the medicine reaches 400g. Take 2 doses a day for 30 consecutive days as a course of treatment. Patients in both groups were given three courses of treatment.

### 3.3 Observation indicators

The Fahl-Meyer score and Barthel index of the patient are evaluated. The Fahl-Meyer score mainly evaluates the patient's limb motor function, while the Barthel index evaluates the patient's ability of daily living<sup>[3]</sup>. The evaluation of curative effect mainly applies the "Guiding Principles of Clinical Experiments for the Treatment of Stroke in Traditional Chinese Medicine", which mainly includes three indicators: marked effective, effective and

ineffective. Marked effective indicates that the patient's various clinical symptoms are little, and the patient can carry out normal life or simple work. Effective means that the patient's clinical symptoms and signs have been improved, and the patient's limb movement and sensory function have been restored to a certain extent. Ineffective means that the patient has no significant changes before and after treatment, and even worsened clinical symptoms<sup>[4]</sup>. Excluding inefficiency is the total effective rate of this study.

The quality of life evaluation mainly includes several indicators of physiological function, physical pain, emotional function and social function. The higher the physiological function, emotional function and social function score, the lower the physical pain score, which means the patient's quality of life is better<sup>[5]</sup>.

### 3.4 Statistical methods

Using statistical software SPSS20.0 as a tool to perform statistical analysis on the data appearing in this study, verifying the *T* value of the comparison result of measurement data ( $\bar{x} \pm s$ ), and the  $\chi^2$  value of the result of count data (n,%), when the result shows  $P < 0.05$ , it means that the difference between the groups has statistical analysis value<sup>[6]</sup>.

## 4 Results

### 4.1 Fahl-Meyer score and Barthel index before and after treatment

Before treatment, there was no significant difference in Fahl-Meyer score and Barthel index between the two groups of patients ( $P > 0.05$ ). After treatment, the two scores of the test group were significantly higher than those of the control group, and the data difference was large,  $P < 0.05$ , which was meaningful.

Group	Fahl-Meyer Score		Barthel Index	
	Before treatment	After treatment	Before treatment	After treatment
Test group (n=100)	38.34±16.55	66.34±19.34	43.02±12.34	72.34±22.04
Control group (n=100)	38.04±15.34	51.44±16.03	42.33±12.03	64.95±17.03
t	0.485	11.285	0.956	13.045
P	>0.05	<0.05	>0.05	<0.05

**Figure 1** Fahl-Meyer score and Barthel index evaluation of the two groups of patients before and after treatment ( $\bar{X} \pm s$ )

### 4.2 Therapeutic effect

The effective rate of treatment for patients in the test group was 94.00%, and that of the control group was 78.00%, which was higher in the test group. The data difference was significant ( $P < 0.05$ ).

Group	Marked effective	Effective	Ineffective	Effective rate
Test group (n=100)	70 (70.00)	24 (24.00)	6 (6.00)	94(94.00)

Control group (n=100)	84 (48.00)	30 (30.00)	22 (22.00)	78(78.00)
$\chi^2$				19.045
P				<0.05

**Figure 2** Comparison of the treatment effect of the two groups of patients [n(%)]

### 4.3 Quality of life of patients

In contrast, after treatment intervention, the scores of patients in the test group in terms of physiological function, emotional function, and social function were significantly higher than those in the control group, while physical pain was lower than the control group. The data difference was significant,  $P < 0.05$ , which is statistically meaningful.

Group	Physiological function	Physical pain	Emotional function	Social function
Test group (n=100)	90.54±6.55	51.05±14.34	55.45±7.04	64.34±14.34
Control group (n=100)	76.95±5.94	87.93±11.44	89.45±7.00	90.04±13.45
$\chi^2$	12.495	14.055	15.486	13.385
P	<0.05	<0.05	<0.05	<0.05

**Figure 3** Comparison of the quality of life between two groups of patients after treatment ( $\bar{X} \pm s$ )

## 5 Conclusion

Stroke patients often show symptoms such as sudden fainting, hemiplegia, unconsciousness, crooked mouth and eyes, etc., which belong to the category of "stroke" in Chinese medicine. It is believed that the cause is the disorder of qi and blood and the imbalance of yin and yang, which leads to stasis, coldness, inflammation, sputum, etc., in the case of cerebral hemorrhage or cerebral artery obstruction, it will lead to the occurrence of stroke, and the patient's quality of life will be seriously affected<sup>[7]</sup>. Buyang Huanwu Decoction is a commonly used prescription for the treatment of sequelae of stroke, which has a significant effect of invigorating Qi, activating blood and dredging collaterals. Among them, astragalus has the effect of invigorating the spleen and stomach, it can promote the circulation of qi and blood, removing blood stasis and dredging meridians, while the angelica can promote and nourish blood, and the red peony root, Chuangqiong, safflower and peach kernel can assist the angelica to promote blood circulation and remove blood stasis<sup>[8]</sup>. Earthworm can realize the effect of activating the meridian. The effect of promoting blood circulation and dredging collaterals can be realized when the prescription is applied, and the effect is remarkable. After applying this method in this study, the results showed that the treatment of patients in the test group was more effective, and the limb function and quality of life scores of the patients were significantly higher than those of the control group, indicating that its application effect was stronger.

In summary, it is necessary to promote the application of Buyang Huanwu Decoction in patients with sequelae

of stroke, its effect is remarkable and it has positive significance for clinical development and can be promoted and used in clinical practice.

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