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The Promoting Role of TCM Nursing in the Rehabilitation of Stroke Hemiplegia Patients

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Abstract

Objective: To explore the promoting function of TCM nursing in the rehabilitation of hemiplegia patients with stroke. **Methods:** 78 stroke hemiplegic patients admitted from April 2022 to April 2024 were randomly divided into a control group of 38 cases who received routine care, and an experimental group of 40 cases who received routine nursing basis plus traditional Chinese medicine nursing; the nursing effects of the two groups of patients were compared. **Results:** After 12 days of nursing care, the experimental group showed better psychological status [SAS score (21.71 ± 3.21), SDS score (22.18 ± 2.31)], limb motor function, daily living ability, and neurological function [NIHSS score (12.23 ± 2.21)] than the control group, with significant differences in data ($P < 0.05$). **Conclusion:** Traditional Chinese medicine nursing for stroke hemiplegia patients is more conducive to promoting rehabilitation than routine nursing.

Keywords

Traditional Chinese Medicine Nursing, Routine Nursing, Stroke Hemiplegia, Rehabilitation Effect

1. Background Introduction

Stroke is the name of traditional Chinese medicine, combined with the clinical symptoms of sudden fainting, unconsciousness, hemiplegia and so on, the disease conforms to the category of acute cerebrovascular disease of western medicine,

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and Western medicine believes that the basic pathological changes of this disease are sudden cerebral blood circulation disorders [1]. After sudden fainting, patients with hemiplegia of stroke were rescued from the danger of life through clinical rescue, but accompanied by hemiplegia numbness, withered limb, limited limb movement ability, and reduced daily living ability. Modern medicine, based on brain cell remodeling function, provides a medical theoretical basis for early rehabilitation exercise. There are many TCM nursing contents for this disease, mainly including emotional nursing, dietary intervention, acupoint application, etc; but there is little research on traditional Chinese medicine nursing of stroke patients with hemiplegia [2] [3]. This study intends to retrospectively analyze 78 patients with stroke hemiplegia who were hospitalized in our hospital from April 2022 to April 2024 and received routine nursing and traditional Chinese medicine nursing intervention respectively to observe the clinical effect.

2. Data and Methods

2.1. General Information

Among the 40 patients in the experimental group, 24 were male and 16 were female, aged from 53 to 86 years and at a mean age (67.12 ± 3.52). Among the 38 routine care patients in the control group, 23 were male and 15 were female, aged from 55 to 83 years, with a mean age (67.81 ± 3.63) years. There was no statistical difference in the general data of the two groups ($P > 0.05$). All enrolled cases were carried out by the same research team according to the same standard after the informed consent of the patients or their families and the approval of the ethics Management Committee of our hospital.

2.2. Case Selection Criteria

Inclusion criteria: 1) All subjects in this study had sudden fainting or (and) confusion, and acute cerebrovascular disease was confirmed by brain CT and MRI examination. After receiving specialized treatment, all of them were out of life danger. However, partial numbness and hemiplegia, which met the clinical diagnostic criteria of stroke hemiplegia. 2) The subjects of this study were all informed of the research content and met the requirements of the hospital ethics committee. Exclusion criteria: 1) Exclude patients who have lost their ability to engage in autonomous activities before stroke hemiplegia; 2) Exclude patients with reduced limb mobility caused by other diseases; 3) Exclude patients with combined systemic skin diseases, local skin lesions, inflammation, or allergic reactions to acupoint application; 4) Exclude patients with intolerance related nursing interventions; 5) Exclude patients with confusion, blurred consciousness, and strong resistance to this treatment.

2.3. Methods

2.3.1. Routine Care (Control Group)

1) Functional placement of the patients with a different body position: During bed

rest, patients should protect the upper and lower limbs, as well as the joints of the upper and lower limbs, on the hemiplegic side to avoid compression; the palms of the upper limbs on the affected side should be facing upwards and the five fingers should be separated; when lying on the affected side, a soft pillow should be placed under the affected limb; when taking a healthy side lying position, a soft pillow should be placed in the patient's arms, and ask the patient to hold the soft pillow while placing the affected side limb on the soft pillow. 2) Passive movement of the affected limb, starting from the large joint of the affected upper limb and then the small joint, massages the paralyzed and antagonistic muscles in the center twice a day for 20 - 30 minutes each time. 3) When the patient is in a supine position, the healthy limb drives the affected limb to lift up, training 5 times each time, 5 - 10 times each time. In addition, patients attempt to eat, dress, wash their faces, brush their teeth, and use the toilet on their own.

2.3.2. Traditional Chinese Medicine Nursing (Experimental Group)

1) Emotional care: According to traditional Chinese medicine, seven emotional failures can affect the normal function of organs; Excessive anger can harm the liver; excessive joy hurts the heart; excessive sadness hurts the lungs; too much worry hurts the spleen; fear hurts the kidney; therefore, nursing staff evaluate the psychological status of patients based on patient feedback, and combine their own knowledge of traditional Chinese medicine nursing and relevant research materials to inform patients of the impact of negative psychology on their disease prognosis. Based on arousing patients' full understanding of the importance of relevant nursing, nursing staff carry out emotional counseling in combination with the patient's psychological and emotional state, and introduce cases in which patients' conditions have been effectively controlled with active cooperation in treatment and nursing to relieve tension, fear and anxiety, and emphasize the importance of active cooperation in treatment and nursing. 2) Diet care: improper diet and spleen health loss can lead to endogenous phlegm and dampness, stagnation and heat, Shangrao empties, which block the circulation of meridians, in this regard, nursing staff combined with the patient's physical differences and condition dialectical care. For patients with hemiplegia accompanied by dizziness, tinnitus, fear of cold limbs, clear urine in large amounts and other Yang deficiency symptoms during the recovery period of stroke, patients should be prohibited from eating raw and cold food, and can eat carrots, Chinese-dates and other warm food in appropriate amounts. If the patient has dry stool, red face and red eyes and other Yang symptoms, the patient should not eat spicy and warm food, should eat cabbage, cucumber, yam and other vegetables; for hyperlipidemia and patients suffering from hypertension, coronary heart disease and other cardiovascular diseases, the patient should not eat animal organs and high-fat food. 3) Acupoint application: For patients with upper limb movement disorders, acupoints such as Shousanli, Quchi, Shoulder Zhen, and Shoulder Jing are selected. For patients with lower limb movement disorders, acupoints such as Yanglingquan, Zusanli, Jiexi, and Taichong are selected. Acupoint application

is applied to all of these acupoints, and after 2 - 4 hours of daily application, it is taken off. The same acupoint or a different acupoint is applied the next day. Two groups of patients received continuous care for 6 days as a course of treatment, with two consecutive interventions for 2 courses.

2.4. Observing Indicators

Comparing the two groups' psychological status, physical motor function, daily living ability and neurological function before and after 12 days of nursing, anxiety self-rating scale (SAS)/depression self-rating scale (SDS) was 0 - 49 scores, the risk of anxiety/depression gradually increased, 50 - 80 scores, and anxiety/depression gradually increased. The simple Fugl-Meyer scale (FMA scale) and Barthel index are both 100 points, and the higher the score, the higher the limb movement level and daily living ability. The NIHSS scale was 0 - 42 scores, and the scores were positively correlated with the degree of neurological impairment.

2.5. Statistical Treatment

Statistical analysis was conducted using SPSS 27.0 software, and the relevant data in the results were represented as "($\bar{x} \pm s$)". Quantitative data were analyzed using t-test, while count data were analyzed using χ^2 test. $P < 0.05$ indicates that the difference is statistically significant.

3. Results

3.1. Comparison of Psychological State Recovery Results

The psychological status of two groups of stroke hemiplegic patients before and after nursing care, Comparison of psychological status between the SAS and SDS quantitative scoring results of two groups of patients before and 12 days after nursing care, respectively, $P < 0.05$ for all, with statistically significant differences; comparison of psychological status before nursing between two groups of SAS and SDS quantitative scoring results, $P > 0.05$ for all, with no statistically significant differences; After 12 days of nursing care, a comparison was made between the quantitative psychological state scores of the two groups, with all $P < 0.05$, and the differences were statistically significant. The specific results are shown in Table 1.

Table 1. Comparison of psychological status between two groups of patients before and after nursing care [$\bar{x} \pm s$, n].

Cases	n	SAS Scale (score)		t value	P value	SDS Scale (score)		t value	P value
		Before nursing	After 12 days			Before nursing	After 12 days		
Experimental group	40	54.69 ± 3.36	22.37 ± 3.64	41.2640	0.0000	57.98 ± 3.66	23.06 ± 2.73	48.3690	0.0000
Control group	38	54.51 ± 3.42	42.96 ± 3.48	14.5923	0.0000	58.07 ± 3.54	42.67 ± 2.56	21.7302	0.0000
t value		0.2344	25.5102	-	-	0.1103	32.6840	-	-
P value		0.4076	0.0000	-	-	0.4562	0.0000	-	-

3.2. Comparison of the Recovery of Limb Motor Function

There was no statistically significant difference in the comparison of muscle motor function, upper and lower limb motor function scores before nursing, and total FMA scores between the experimental group and the control group, $P > 0.05$ for all; after 12 days of nursing care, the comparison of upper and lower limb motor function scores and total scores showed statistically significant differences, $P < 0.05$ for all; the experimental group and the control group were compared before and 12 days after nursing, and the differences were statistically significant, $P < 0.05$ for all. The specific results are detailed in Table 2.

Table 2. Comparison of limb movement ability between the two groups before and after care [$\bar{x} \pm s$, n].

Cases	n	Upper limbs (points)		Lower limbs (points)		Total FMA score (points)	
		Before nursing	After 12 days	Before nursing	After 12 days	Before nursing	After 12 days
Experimental group	40	25.22 ± 3.16	52.69 ± 3.27*	19.04 ± 2.31	25.63 ± 2.21*	44.95 ± 2.32	80.26 ± 3.63*
Control group	38	25.43 ± 3.19	43.26 ± 3.47*	19.11 ± 2.23	22.38 ± 2.17*	44.92 ± 2.34	69.98 ± 3.75*
t value		0.2920	12.3568	0.1360	6.5492	0.0568	12.3018
P value		0.3855	0.0000	0.4461	0.0000	0.4774	0.0000

Note: Compare before and after 12 days of care within the "*" group, $P < 0.05$ for all.

3.3. Comparison of Daily Living Ability and Neurological Function Recovery

There was no significant difference in daily living ability, neurological function index, Barthel index before nursing and NIHSS score between the experimental group and the control group ($P > 0.05$). After 12 days of nursing, Barthel index and NIHSS score were statistically significant ($P < 0.05$). The results of Barthel index and NIHSS scale were compared between the experimental group and the control group before and after 12 days of nursing, and the differences were statistically significant ($P < 0.05$), as shown in Table 3.

Table 3. Comparison of daily living ability and neurological function between the two groups[$\bar{x} \pm s$, n].

Cases	n	Barthel-Index (points)		t Value	P value	NIHSS scale (points)		t Value	P value
		Before nursing	After 12 days			Before nursing	After 12 days		
Experimental group	40	53.65 ± 3.59	83.36 ± 3.78	36.0442	0.0000	32.76 ± 3.23	12.95 ± 2.42	31.0430	0.0000
Control group	38	54.25 ± 3.14	74.53 ± 3.85	25.1634	0.0000	32.95 ± 3.19	20.92 ± 2.35	18.7166	0.0000
t value		0.7840	10.2194	-	-	0.2612	14.7445	-	-
P value		0.2177	0.0000	-	-	0.3973	0.0000	-	-

4. Discussion

With the surge of the elderly population in China, the prevalence rate of stroke hemiplegia is increasing year by year. The occurrence of this disease can bring great economic burden and pressure to the family and society. Based on the plasticity and functional reorganization ability of brain cells, Western medicine believes that through early rehabilitation ports, it can promote the formation of neural synapses in the brain, restore the ability of adjacent denervated tissues to be innervated, and improve limb motor and life abilities. However, the efficacy of routine nursing interventions in Western medicine is limited [4] [5]. Stroke hemiplegia belongs to the name of traditional Chinese medicine, and traditional Chinese medicine nursing is carried out under the guidance of traditional Chinese medicine theory; It is a patient-centered multidisciplinary nursing model, which includes emotional regulation, dietary intervention, acupoint application, etc. [6] [7]. Chinese medicine believes that anger hurts the liver, excessive joy hurts the heart, sadness hurts the lungs, worry hurts the spleen, and fear hurts the kidneys; Due to a lack of awareness of their own diseases, stroke and hemiplegia patients often cannot suddenly accept their own diseases, worry about the prognosis of their own diseases, and are prone to negative emotions such as fear, anxiety, and anger. Emotional disorders can exacerbate the dysfunction of the five viscera and worsen the condition, In this regard, nursing staff in traditional Chinese medicine emotional nursing stimulate patients' enthusiasm and guide them to actively cooperate with relevant nursing interventions [8] [9]. The spleen is the foundation of postnatal development. Improper diet can lead to the loss of healthy spleen function, and the inability of dietary water and grains to transform into refined water and grains. Dietary water and grains accumulate for a long time, transforming phlegm and dampness into heat, and clearing the orifices and inducing stroke. In traditional Chinese medicine dietary regulation, the bias of diet can be used to affect the rise and fall of yin and yang in the body, promote the recovery of spleen and stomach function, and ensure the prognosis effect of stroke hemiplegic patients. Traditional Chinese medicine believes that stroke hemiplegia is caused by blood vessel obstruction. During acupoint application, nursing staff follow the principle of selecting acupoints nearby. On the upper limb of the hemiplegic side, acupoints such as Shousanli, Quchi, Shoulder Zhen, and Shoulder Jing are selected, while on the lower limb, acupoints such as Yanglingquan, Zusanli, Jiexi, and Taichong are selected. Acupoints are the gathering points of meridian qi and blood, as well as the reaction points for organ meridian lesions. Stimulating these acupoints in stroke hemiplegic patients can play a role in unblocking the meridians and regulating the qi and blood of the meridians where the acupoints are located [10]. Acupoint application of patients with stroke hemiplegia is a kind of external treatment method of traditional Chinese medicine to stick the drug application on the acupoint, so as to continuously stimulate the acupoint. The Chinese medicine contained in the acupoint application is warm and has the effect of promoting qi and blood circulation. It

is pasted on the skin of the body, and the effective ingredients of the drug can give continuous stimulation to the acupoint through the skin, which is conducive to the effect of the acupoint. In addition, modern clinical studies have found that acupoints are rich in nerve endings in the body, and continuous stimulation of acupoints can improve local blood flow, regulate neurohumoral metabolism, and then play a role in disease treatment. The results of this study showed that the psychological state, limb motor function, daily living ability and nerve function recovery of patients with stroke and hemiplegia were better in TCM nursing than in conventional nursing, and the differences were statistically significant ($P < 0.05$). This is consistent with the findings of Feng Ying *et al.* [11]. The results showed that the psychological state, upper and lower limb motor ability, daily living ability, nerve function recovery and quality of life of stroke patients with hemiplegia were significantly improved after the intervention of traditional Chinese medicine nursing. This indicates that traditional Chinese medicine nursing has good clinical application value in stroke hemiplegia patients.

5. Conclusion

In summary, the results of this study found that traditional Chinese medicine nursing has played a huge role in the quality of stroke hemiplegia patients. Patients have achieved good results in the recovery of various indicators such as psychological state, limb motor function, daily living ability, and neurological function, which is worth promoting and applying.

6. Study Limitations

The number of samples selected in this study is relatively small, which cannot represent the results of a large number of samples. Therefore, there are certain limitations, and further research on the number of samples is needed to achieve more representative research results.

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Conflicts of Interest

The authors declare that there is no conflict of interest in the publication of this article.

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