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Analysis of the Effect of Early Rehabilitation on Functional Recovery in Stroke Patients

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ABSTRACT. *With the deepening of clinical research, carrying out clinical rehabilitation training in the early stage of stroke can effectively restore the neurological deficit, delay the further development of the patient's condition, and improve the patient's long-term prognosis. In order to analyze the significance of early implementation of health education on the clinical rehabilitation of stroke patients, this study is specifically conducted and the research results are now reported.*

KEYWORDS: *Rehabilitation education; Stroke; Functional recovery*

1. Introduction

Stroke disease is particularly common in clinical practice, belongs to a neurofunctional defect syndrome. With rapid onset of the disease, rapid progress of the disease, the disease is dangerous, high disability rate, high mortality rate and so on, seriously threatening the life and health of patients. After treatment, patients still have different degrees of limb, language and other dysfunctions, it is necessary to implement effective rehabilitation care to promote patient rehabilitation [1].

2. Method

The patients in the control group were mainly treated in accordance with the general hospital model, while the observation group carried out neuropathic early rehabilitation interventions on the basis of the patients in the control group, including:

(1) Psychological care and health education: In the course of treatment of stroke patients often face greater psychological pressure, therapists must observe the

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patient's psychology, timely grasp of the patient's emotional changes, and communicate with patients, guide patients to use a variety of effective ways to vent out bad emotions. At the same time, patients should be encouraged to receive treatment with confidence. In addition, it is necessary to educate patients about health, to make them aware of the importance of early rehabilitation care, and to actively cooperate with training [2];

(2) Functianal rehabilitation: 1 position: guide patients to maintain a good position, and their passive movement to promote blood circulation; 2 language training: encourage patients to have more communication with their families to help their language functions recover quickly; 3 activities of daily living(ADLs) training: eat, tie shoelaces, wash, go to the toilet and other training, and continuously improve patients ADLs; 4 extremity movement : combined with the patient's condition and extremity movement disorders, and develop a scientific treatment plan[3].

(3) Complication care: In view of the many complications that often occur in stroke patients, in the process of rehabilitation care, the care of complications should be done in advance [4].

3. The relationship between stroke and hypertension

1) Active antihypertensive treatment can significantly reduce the risk of stroke recurrence. It is advocated to reduce the blood pressure of patients with previous cerebrovascular disease to less than 140/90 mmHg or even lower.

2) Antihypertensive treatment in the acute phase of stroke should be more cautious. During acute stroke, patients develop increased intracranial pressure, cerebral hypoxia, pain, and mental stress, and cause reflex blood pressure. If the blood pressure is reduced too much at this stage, it may increase cerebral ischemia and hypoxia, which is not conducive to the recovery of the disease and even causes more serious consequences. Therefore, unless blood pressure is severely elevated (over 180 / 105mmHg), antihypertensive drugs should be temporarily discontinued. It is generally believed that blood pressure maintained between 160-180 / 90-105mmHg is most appropriate when the acute cerebral infarction is onset within one week.

3) Compared with ischemic stroke, antihypertensive treatment of hemorrhagic stroke is more complicated: high blood pressure will cause re-bleeding or active bleeding, and low blood pressure will increase cerebral ischemia. For such patients, it is now considered more secure to maintain blood pressure at pre-cerebral hemorrhage levels or slightly higher. When the blood pressure is too high, some milder anti-hypertensive drugs can be carefully selected under the premise of reducing intracranial pressure, so that the blood pressure can be smoothly and slowly reduced. Generally, the blood pressure does not decrease by more than 25% within 2 hours. Excessive or excessive reduction in blood pressure may adversely affect the condition. It is appropriate to maintain blood pressure at 150-160 / 90-100mmHg during acute cerebral hemorrhage.

4) Regardless of cerebral hemorrhage or cerebral infarction, once the condition

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returns to stable, anti-hypertensive treatment should be resumed gradually, and blood pressure should be controlled below 140 / 90mmHg. Folic acid supplementation can effectively prevent stroke.

Hypertension is the primary risk factor for stroke. The main outcome of hypertension in China is stroke. tients have a history of hypertension. This conclusion is different from that of most western countries. The main outcome of hypertension in western countries is coronary heart disease. In addition, the occurrence Hypertension has a stroke rate of 6 times that of normal blood pressure patients, and 70% to 90% of stroke pae and prognosis of stroke are closely related to the degree and duration of hypertension. Some studies have found that both hemorrhagic and ischemic strokes have the largest proportion of mixed hypertension. Simple systolic hypertension and hypertension with predominantly elevated systolic blood pressure are more likely to cause ischemic stroke, especially in the elderly, and the mortality rate of stroke is higher than other hypertension types. The pathogenesis of cerebral stroke caused by hypertension: when the blood pressure increases, the small arteries of the brain contract, and the degree of contraction is closely related to the degree of increase in blood pressure. If the degree of blood pressure rise is mild and the duration is short, no serious brain lesions will generally occur at this time; however, when it continues to be moderately elevated, it can lead to glassy degeneration of the arterial muscle layer and hardening of the lumen. The small arteries of the brain lose their ability to contract and expand with fluctuations in systemic blood pressure. When the blood pressure drops, it causes insufficient cerebral perfusion and leads to cerebral ischemia; on the contrary, when the blood pressure increases, the perfusion of the venous bed increases excessively, causing congestion, Edema or bleeding.

4. Performance in stroke patients

Clinical manifestations Clinical signs and symptoms of transient or permanent brain dysfunction.

Stroke is divided into ischemic stroke and hemorrhagic stroke.

Clinical manifestations The clinical manifestations are characterized by sudden fainting, unconsciousness, or sudden distortion of the mouth and eyes, hemiplegia, tongue dysphoria, and mental retardation. Stroke includes ischemic stroke (transient ischemic attack, atherosclerotic thrombotic cerebral infarction, lacunar cerebral infarction, cerebral embolism), hemorrhagic stroke (cerebral hemorrhage, subarachnoid hemorrhage), high Four categories of blood pressure encephalopathy and vascular dementia.

Common harbingers:

1) Limb numbness, suddenly feel numbness on one side of the face or hands and feet, and some are numb tongue. Lip numbness.

2) Temporary articulation or speech failure.

3) Usually different headaches.

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4) Sudden fall or fainting for unknown reason.

5) Transient loss of consciousness or sudden changes in personality and intelligence.

6) The whole body is obviously weak, and the limbs are weak.

7) Nausea and vomiting or blood pressure fluctuations.

8) Drowsy all day long, in a state of lethargy.

9) One or one limb twitches involuntarily.

10) Spit in both eyes for a while can not see what appears in front of the eyes.

5. Treatments

The patients in the control group carried out routine post-stroke early rehabilitation care, monitored various vital signs of the patients, and conducted functional exercise guidance and health education guidance [5].

5.1 Swallowing function training

Conscious patients need to be evaluated for dysphagia within 24 hours of admission, using the Watian drinking water test to evaluate, such as the Watian drinking water test ≥4, instruct the patient to retain the nasal feeding tube and give appropriate diet care [6]. If the Watian drinking water test is less than or equal to grade 3, the patient will be given correct dietary guidance. By selecting the shape of the food, controlling the amount of bite, and adopting the correct eating position to prevent accidental aspiration. Massage the masticatory muscles and tongue muscles of the patient, extend the tongue as far as possible, and then repeatedly chew the upper and lower teeth to close the mouth. If the patient cannot move on his own tongue, then use the gauze to hold the tongue and move it up and down. The cold stimulation of the department gently stimulates the posterior pharyngeal wall of the patient, allowing the patient to swallow and swallow 3 times a day. Promote the recovery of swallowing function [7].

5.2 Rehabilitation nursing

In the rehabilitation nursing operation in the acute phase, after the patient's signs of recovery are stable, the patient can be instructed to carry out bed limb functional rehabilitation training. Rehabilitation training is preferably in the lateral position. Soft pillow to avoid closing

Oedema, spasms, pressure ulcers, etc. occur every day. Massage the patient's limbs every day to promote blood circulation. Passive training can be performed on

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the bed. First, exercise the healthy limbs and then exercise the affected limbs, which leads to the rising incidence of cerebrovascular diseases. Stroke is more common in clinic [8].

Each training time is 15-20 minutes, the training moves gradually from small to large movements, and the intensity of activity is better from the patient feeling sore.

5.3 ADLs training

Patient recovery should be based on life self-care ability and language ability training. Therapist can use the recorder to gradually transition from single syllables to complex syllables, gradually training the patient's language function. Daily self-care ability training can be based on the patient's daily activities, Washing, dressing, toileting and other simple actions began, and the family members were given guidance on rehabilitation training content when the patient was discharged from the hospital to ensure the continuity of rehabilitation care. Telephone follow-up was carried out at a fixed time every month for six months after the patient was discharged. Table 1 is the compares the ability of daily living of two groups of patients.

Table 1 Compares the ability of daily living of two groups of patients

Constituencies	Examples	Body	Tooly Daily	Daily activities
		Living for yourself	Life activities	Total competency
Treatment group	170	20.9±2.3	15.1±6.7	36.1±3.4
General group	170	28.1±3.4	21.6±5.6	49.7±2.3
P		<0.01	<0.01	<0.01

Data from 50 patients admitted to the Neurology Department of Xuzhou People's Hospital from April to November 2015 who were diagnosed with ischemic stroke by MRI or CT

6. Observation indicators and judgment criteria

Assess the effectiveness of patient care. Healing: National18 functional impairment rating scale (national institute of health stroke 46%-89 scale, NIHSS)scoredecreased by 90%-100% 90%-100without symptoms of disability;%-45%, with moderate symptoms of disability; The body movement ability of patients was assessed using the Limb Movement Score(Fugl-Meyer) and the score was proportional tothe ability of limb movement [9].

The higher the score was used to rate the patient's daily life ability using the Daily Life Competence Score (Barthel) and the higher the score, the higher the daily life

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ability.

The higher the level of neural defects was scored by NIHSS, indicating a higher level of defect [10].

7. Results Analysis

Stroke is a common multiple morbidity, high disability rate, serious and even death, the most common complications are hemiplegia, the patient's life has a serious impact. Data found that stroke patients nearly 80% will appear to varying degrees of hemiplegia, with medical progress, the current stroke patients surgery treatment has achieved a high success rate, but for the improvement of hemiplegia problem or can not be solved through surgery, for hemiplegia patients, for stroke treatment surgery is only the first step, the later rehabilitation training is particularly important. Patients get sick is an emergency, they have a serious psychological impact, at the same time, psychological effects will induce other complications. This requires therapists to find out the psychological changes of patients in a timely manner, to understand their real thoughts, targeted to guide patients, let them relax their mentality, firm belief, to a positive state to face the disease. Secondly, therapists should pay attention to the patient's rehabilitation training, so that patients master the correct training methods, the patient explains the disease-related knowledge, so that they have a certain understanding, no longer feel in the family and medical staff with the help of perseverance. Feel the strangeness of the disease, but targeted to deal with .

In order to reduce the disability rate and improve the quality of life of patients, many medical scholars have conducted in-depth research on rehabilitation care for patients with stroke and hemiplegia. The earlier the rehabilitation care is involved, the better the recovery of limb motor function, which greatly reduces muscle wasting and joint dislocation. Joint contracture deformity, foot drop or varus, etc., make the patient recover from the physical and mental disability to the maximum extent and return to the society. There is no medicine to replace this. Therefore, the earlier rehabilitation nursing is of great significance to the recovery of limb motor function and the overall effect of stroke patients with hemiplegia.

Early rehabilitation helps to suppress and reduce the appearance and development of limb spasms, can prevent complications, promote rehabilitation, reduce disability and improve quality of life. It is generally believed that patients with ischemic stroke need to be conscious, their vital signs are stable, and their condition can not be performed within 48 hours after development. Beginning in ~ 14 days, rehabilitation of dyskinesias caused by other diseases should be carried out as soon as possible. As long as the treatment is not hindered, the earlier the rehabilitation training is carried out, the greater the possibility of functional rehabilitation and the better the prognosis.

8. Conclusions

This study shows that early rehabilitation interventions after the onset of stroke,

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interventions in many aspects such as psychology, behavior, language, health education, etc., can help patients restore nerve function and limb function, which is conducive to the recovery of patients' daily life ability, thereby increasing Neural pathways around the lesion restore the central nervous system's compensatory function. In summary, early rehabilitation training in stroke patients can improve patients' limb function and nerve function, help patients speed up recovery, and is worthy of clinical application.

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