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Observation on the Effect of Early Comprehensive Rehabilitation Nursing in the Nursing of Elderly Patients with Cerebral Infarction and Hemiplegia and Analysis of the Influence of NIHSS Score

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Abstract

Objective: To evaluate the effect of early comprehensive rehabilitation nursing in the nursing of elderly patients with cerebral infarction hemiplegia and the influence of NIHSS score. Methods: the cases were collected from January 2021 to January 2022. Taking the elderly patients with cerebral infarction hemiplegia treated in our hospital as the investigation target, 76 cases were divided into groups according to the computer random distribution method. The control group received routine nursing and the observation group received early comprehensive rehabilitation nursing. The ability of daily living, motor function, nerve damage and nursing satisfaction of the two groups were evaluated and compared. Results: there was no significant difference between the two groups before nursing. After nursing, the Barthel Index and Fugl-Meyer score of the observation group were significantly higher than those of the control group, and the NIHSS score of the observation group was significantly lower than that of the control group ($P < 0.05$); The total satisfaction of patients in the observation group was significantly higher than that in the control group ($P < 0.05$). Conclusion: the application of early comprehensive rehabilitation nursing in the nursing of elderly patients with cerebral infarction hemiplegia can not only reduce the degree of nerve damage, but also improve their motor and living ability, and promote their early health, which is worthy of clinical adoption.

Keywords

Early Comprehensive Rehabilitation Nursing; Cerebral Infarction Hemiplegia; Nursing Effect; NIHSS Score.

1. Introduction

Cerebral infarction has a high incidence rate, mortality rate and disability rate in cerebrovascular diseases. The disease develops rapidly, and most patients with cerebral infarction have combined hemiplegia, aphasia and dysfunction after the onset of the disease. Such complications can not only aggravate the condition, but also increase the difficulty of clinical treatment and threaten the safety of patients. Cerebral infarction hemiplegia is mostly manifested in the damage of upper motor neurons, resulting in pathological motor mode. The main risk factor is cerebral nerve damage. Therefore, clinical treatment should not only protect cerebral nerves, but also strengthen postoperative rehabilitation exercise, and take effective nursing intervention as soon as possible to ensure that patients recover their normal physical function as soon as possible [1]. Based on this, this paper will collect 76 patients with cerebral infarction hemiplegia to study, in order to analyze the role and effect of early comprehensive rehabilitation nursing.

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2. Data and Methods

2.1 General Information

The study range was from January 2021 to January 2022. The subjects were the elderly patients with cerebral infarction hemiplegia treated in our hospital. 76 cases were selected and divided into two groups according to the principle of computer random grouping. There were 38 cases in the control group, 22 males and 16 females, aged 47 ~ 79 years, with an average of (63.49 ± 4.11) years. Muscle strength grade: 20 cases of grade 0 ~ I, 12 cases of grade II ~ III and 6 cases of grade IV; There were 38 cases in the observation group, 23 males and 15 females, aged from 48 to 79 years, with an average of (63.58 ± 4.25) years. Muscle strength grade: 20 cases of grade 0 ~ I, 13 cases of grade II ~ III and 5 cases of grade IV. The gender, age and muscle strength grade of the above data had no statistical significance, $P > 0.05$.

Inclusion criteria: meet the diagnostic criteria of "key points for diagnosis of various cerebrovascular diseases"; Confirmed by brain CT and MRI; Age > 45 years old; The time from onset to admission was < 48h; The patient's family members have signed the informed consent form; The hospital ethics committee has approved. Exclusion criteria: complicated with cerebral hemorrhage, other cerebrovascular diseases, congenital language and movement disorders; coagulation disorders History of mental illness; Cognitive and communication barriers; Lower limb dysfunction.

2.2 Method

The control group received routine nursing, closely monitored vital signs, provided basic ward nursing, dietary guidance, publicity and education and skin cleaning nursing, and told the patients to maintain an optimistic attitude and cooperate with the treatment according to the doctor's advice.

The observation group was given early comprehensive rehabilitation nursing, and the specific measures were as follows: (1) early psychological counseling. Patients with cerebral infarction hemiplegia have a poor state of mind in the early recovery stage, lack confidence in treatment and think they are the burden of the family, so they are pessimistic and depressed. Therefore, nurses should pay more attention to the patient's mood, take the initiative to say hello and greet, ask the patient's physical and mental feelings every day, understand their inner thoughts through interaction and communication, and answer the patient's questions in time for professional guidance, Inform patients of the importance of early rehabilitation exercise and rehabilitation skills, and encourage and enlighten patients to relax. They should cooperate with the doctor's advice step by step, and do not add trouble on their own. (2) Early postural nursing. In the early stage, try to stay in bed and help turn over once every 2 hours. Guide the patient to carry out passive movement according to the patient's physical condition. Avoid joint deformation and muscle atrophy by alternating the healthy side lying position, flat lying position and semi lying position. Massage the muscles of the limbs 3 ~ 5 times a day. When in the side lying position, put soft cushions between the legs to avoid compression. (3) Early limb function exercise. In the recovery stage, assist the patient to spend from passive to active exercise, move the shoulder, elbow, hip, knee and ankle joints in turn from the healthy side joint to the affected side joint, increase the muscle strength by rubbing, patting and pressing, gradually increase the exercise time and amplitude every day, encourage the patient to transfer from the lying position to the standing position of getting out of bed as soon as possible, and help the patient get out of bed and walk, Contribute to the recovery of systemic function [2].

2.3 Observation Indicators

Living ability: Barthel index scale was used to evaluate their daily living ability, with a full score of 100. The higher the score, the better their living ability; Fugl-Meyer scale was used to evaluate their motor function, with a score of 0 ~ 100, which is directly proportional to their motor function; NIHSS was selected to evaluate its neurological function, with a score of 0 ~ 42. The higher the score, the more serious the brain nerve damage.

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The self-made questionnaire was used to evaluate the nursing satisfaction of patients, > 9 points were very satisfied, 7 ~ 9 points were average, and < 7 points were not satisfied.

2.4 Statistical Methods

Analysis and statistics software SPSS23.0. Use rate (%) to describe the counting data, X2 for the test, and ($\bar{x}$ ±s) to describe the measurement data. Conduct t-test, P < 0.05 means the difference is statistically significant.

3. Results

3.1 Comparison of Barthel Index, Fugl-meyer and NIHSS Scores

The difference score between groups before nursing is meaningless. After nursing, the scoring indexes of patients in the observation group are significantly better than those in the control group. The statistical difference is p < 0.05, as shown in Table 1.

Table 1. Comparison of Barthel index, Fugl-Meyer and NIHSS scores ($\bar{x}$ ±s, points)

group	Number of cases (n)	Barthel index		Fugl-Meyer score		NIHSS scores	
		Before nursing	After nursing	Before nursing	After nursing	Before nursing	After nursing
Observation group	38	51.45±5.22	89.77±7.25	52.11±4.77	84.51±6.78	16.78±2.42	6.07±1.04
control group	38	51.66±4.09	76.98±6.72	52.35±4.63	75.26±5.59	16.91±2.41	10.22±1.79
t	-	0.195	7.976	0.223	6.489	0.235	12.357
P	-	0.846	0.000	0.825	0.000	0.815	0.000

3.2 Nursing Satisfaction

Compared with the control group, the patients in the observation group had significantly higher satisfaction with nursing, and the results were p < 0.05, as shown in Table 2.

Table 2. nursing satisfaction (n,%)

group	Number of cases	Very satisfied	Basically satisfied	dissatisfied	Total satisfaction
Observation group	38	29	8	1	37(97.37)
control group	38	26	5	7	31(81.58)
X^2	-	-	-	-	5.029
P	-	-	-	-	0.025

4. Discussion

Cerebral infarction hemiplegia belongs to central hemiplegia. It is mainly due to the loss of central regulation and control of the brain, which interferes with a series of obstacle symptoms caused by motor conduction, which causes serious harm to the physical and mental health and living ability of patients, and even improves the clinical disability rate. Relevant research literature has confirmed that

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the treatment of patients with cerebral infarction hemiplegia needs to strengthen rehabilitation training and help patients recover their normal physical fitness through effective exercise intervention guidance.

This paper recommends early comprehensive rehabilitation nursing. The results show that the recovery effect of exercise, living ability and neurological function in the observation group is significantly better than that in the control group, and its total nursing satisfaction is higher than that in the control group. The statistical difference confirms the efficiency and feasibility of rehabilitation nursing, which has a positive effect on promoting patients' rehabilitation and protecting cerebral neurological function. Early comprehensive rehabilitation nursing can pay full attention to the recovery of patients, formulate a scientific rehabilitation plan in combination with the actual situation, eliminate their bad emotions through psychological communication, correctly guide patients to maintain a comfortable posture and reasonably participate in functional exercise, which has a positive effect on improving the whole body function.

Based on the above, early comprehensive rehabilitation nursing can not only guide patients with cerebral infarction hemiplegia to recover normal motor and neurological function as soon as possible, but also greatly improve their living ability and face life optimistically, which is worthy of clinical promotion.

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