# Analysis on the effect of nursing intervention on limb function recovery in elderly patients with cerebral apoplexy hemiplegia

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**Keywords:** nursing intervention; The elderly; Stroke; Hemiplegia; Limb function recovery; impact analysis

**Abstract: Objective:** To analyze the effect of nursing intervention on patients with cerebral apoplexy hemiplegic limb to help restore limb function, and discuss the influence of nursing intervention on limb function recovery of patients with cerebral apoplexy hemiplegic limb. **Methods:** 100 patients with cerebral apoplexy hemiplegia in our hospital were selected and randomly divided into observation group and control group, 50 patients each. After 4 weeks of nursing, patients were observed for the incidence of limb numbness, dyskinesia, ataxia, and sensory loss, and the recovery of limb function (recovered, recovering, not recovered) after nursing were compared, and patients' opinions were collected for the satisfaction statistics. **Results:** 4 patients in the observation group did not recover, 15 patients were recovering, 31 patients recovered, $P<0.05$. In the control group, 9 patients did not recover, 12 were recovering and 29 were recovering. ($P < 0.05$). In the observation group, there were 1 case of limb numbness, 2 cases of dyskinesia, 1 case of ataxia and 0 cases of sensory loss. ($P < 0.05$). In the control group, there were 1 case of limb numbness, 2 cases of dyskinesia, 2 cases of ataxia and 1 case of sensory loss. ($P < 0.05$). In the observation group, there were 2 cases of dissatisfaction, 17 cases of general satisfaction and 31 cases of satisfaction ($P<0.05$). In the control group, 8 were dissatisfied, 12 were generally satisfied and 30 were satisfied, $P<0.05$. **Conclusion:** After cerebral apoplexy hemiplegia, reasonable nursing intervention can help the patients recover limb function as soon as possible, improve the patient's limb movement ability, promote the patient's limb coordination, gradually return to the daily level.

## 1. Introduction

Inside of blood vessels in the brain or sudden rupture hemorrhage due to vascular blockage caused by brain ischemia, hypoxia and elderly cerebral apoplexy, hemiplegia symptoms can occur easily, the patient is on one side of the body can't coordinate operations, often appear disturbance of consciousness, numbness, motor nerve dysfunction, etc., in promoting the limb function recovery treatment is particularly important, only rely on drugs inhibit pathogenetic condition is far from enough, combined with the form of nursing intervention, considering various nursing mode, comprehensive analysis of the patient's problem from different angles, to give full intervention, can improve the limb function in patients with senile cerebral apoplexy hemiplegia recovery efforts, To accelerate the recovery of limb function and realize the value of nursing.

## 2. Materials and Methods

### 2.1 General Materials

A total of 100 elderly patients with cerebral apoplexy hemiplegia admitted to our hospital were selected and randomly divided into observation group and control group, 50 cases each. There were 30 male patients and 20 female patients in the control group, aged 59~86 years old, with an average age of (68.52±9.15) years old. There were 28 male patients in the observation group. Cases, 22 cases of female, aged 54 ~ 88, the average was (66.41 + 5.28) years, the patients of the inclusion criteria: patients with the hospital diagnosed with stroke hemiplegia and limbs dyskinesia, age of the patients are in more than 50 years old, patients with no other serious diseases, such as diabetes,

  DOI: 10.25236/medsbe.2019.030

high blood pressure problems and slightly intervention, this survey can be ignored. The exclusion criteria of this study were as follows: excluding the patients who could not communicate with tongue failure after hemiplegia, excluding the patients who were older and had hearing problems, excluding the patients who were repeatedly admitted to hospital with weak dependence on nursing care and compliance, and excluding the patients with mental abnormalities.

### 2.2 Methods

#### 2.2.1 Routine care of the control group:

(1) Health education: relevant knowledge of the patient and family to introduce stroke, to understand the stroke patients with hemiplegia factors, eliminate the patient's basic psychological questions, guide the patient say problems and solutions, introduced the hospital environment and fee policy, encourage patients have a preliminary understanding of the illness and hospital, will check the result and data analysis to patients, patients with instructions from the perspective of science of the existing problems, and use the popular language to explain the results of inspection, make preliminary formation of nursing patients compliance.

(2) Early recovery nursing: early mainly through massage, massage, passive movement of the form of exercise, the prevention of muscle atrophy, muscle spasm and other adverse symptoms, can be in the affected side of the patient local weight appropriate massage, time for 5~10 minutes, usable fingers or palms along the paralyzed muscle forward.

(3) Medium recovery nursing: nursing staff in the professional help to make up, abduction, external rotation, elbow joints and knuckles for extension and flexion, gradually exercise to active movement. Continue to exercise turn over, sit up, learn to stand with the help of others, hold the back of the chair or bed frame with both hands to move forward, exercise the muscle and joint movement of paralyzed lower limbs.

(4) Late restoration nursing: exercise walking and finger fine movement, at this time, pay attention to exercise the patient's daily life ability, toilet, turn over at bedtime, diet and gradually began to get rid of nursing dependence, let the patient complete the life requirements independently.

#### 2.2.2 Comprehensive nursing intervention in the observation group: all the above nursing interventions were carried out, and other nursing interventions were carried out simultaneously.

(1) Acupuncture care: mouth and eye askew --- main point: Tinghui, Dicang, Hegu, Yingxiang; adjunct acupuncture points: Fengchi, Shuigou, Jiache, Sizhukong, etc. Hemiplegia --- main acupoint: Jianyu, Quchi, Waiguan, Hegu, Huantiao, Weizhong, Zusanli, Yanglingquan, Taichong; adjunct acupuncture points: Shousanli, Dazhu, Fengshi, Chengshan, Jiexi, etc. It should be carried out under the dialectical guidance of TCM doctors.

(2) Dietary intervention: millet porridge, steamed egg soup to promote digestion, reduce constipation. In the morning and evening 15 minutes abdominal massage to speed up the peristalsis of the intestinal tract, promote food digestion.

(3) Functional electrical stimulation: stimulation of the cerebral cortex to form traces of excitement for a long time to use, constantly repeated motor mode into the central nervous system, so in the damaged brain tissue around or on the side of the generation of compensation area, the formation of memory, gradually restore the original motor function. Use it in combination with the instruction manual of the instrument.

(4) Taboo guidance: the patient's body rehabilitation training, uncomfortable symptoms, a cold a fever, headache, nausea should suspend training, exercise is not allowed to immediately take a hot bath, but such as a quiet period of time after the exercise bath, training should take into account the situation, observe the patient before and after training heart rate, pulse, analysis of the size of the amount of exercise.

(5) Health check nursing: regularly for the patient turn over, massage, in the bed sore good hair place with cushion, balloon, sponge pad. The patient that has sensory obstacle does not use hot water bag as far as possible, prevent scald.

(6) Psychological care: family members must encourage patients optimistic open-minded, establish the confidence to overcome the disease. So that it can cooperate with medical staff and family members, as early as possible to carry out paralyzed limb function exercise, prevent joint deformity and muscle atrophy. It is more important to keep a good state of mind in face of one's illness. Self-pity cannot solve the problem. It is still necessary to cooperate with family members and take reasonable communication and comfort ways to understand the patient.

### 2.3 Observation Indexes

After 4 weeks of nursing, the observation of patients have numbness, movement disorders, ataxia, sensory loss risk adverse symptoms, and comparing the limb function recovery after patient care (recovery, recovery, not seen restoring), no obvious stroke symptoms and reaction, body movement can freely or slow movement, can be separated from other nursing intervention as recovery; The limbs of the patients can be moved simply with the help of others, and they can go to the toilet, go to bed, eat normally without or rarely need the help of others. The difference between the healthy side and the affected side is not obvious, and obvious signs of recovery compared with the original clinical symptoms are considered to be recovering. The patient showed no obvious signs of recovery, which was still similar to hemiplegia symptoms at admission. Moreover, the patient was more dependent on nursing and needed others to help him complete daily life activities, which was considered as no recovery. Patients' opinions were collected and satisfaction statistics were conducted, mainly in view of the nursing attitude, timeliness of nursing, nursing assistance, publicity and education communication of medical staff during nursing.

### 2.4 Statistical Methods

Excel software such as medical office under the discrete data statistics and classified count (X2 test, is used to infer that two or forming than there is difference between the overall rate), matching measurement data comparison between samples or groups (t test, observe the differences of this group of samples with overall), x (average) ±s (Standard Deviation) said mean add and subtract Standard Deviation, the small probability event of statistical quality control, $P < 0.05$, said have significant difference (one hundred trials, the frequency is less than 5 times).

## 3. Results

In the observation group, 4 patients did not recover, 15 were recovering and 31 already recovered, $P < 0.05$.

In the control group, 9 patients did not recover, 12 were recovering and 29 were recovering, $P < 0.05$.

Table 1 recovery of limb function of patients with stroke hemiplegia after nursing in the two groups

| groups | n | already recovered | recovering | not recover |
|---|---|---|---|---|
| the observation group | 50 | 31 | 15 | 4 |
| In the control group | 50 | 29 | 12 | 9 |
| $X^2$ | 0.265 | 0.458 | 2.745 | 2.945 |
| P | < 0.05 | < 0.05 | < 0.05 | < 0.05 |

In the observation group, there were 1 case of limb numbness, 2 cases of dyskinesia, 1 case of ataxia and 0 cases of sensory loss, $P < 0.05$.

In the control group, there were 1 case of limb numbness, 2 cases of dyskinesia, 2 cases of ataxia and 1 case of sensory loss, $P < 0.05$.

Table 2 comparison of adverse symptoms between the two groups

| groups | n | limb numbness | dyskinesia | ataxia | sensory loss | Total rate |
|---|---|---|---|---|---|---|
| the observation group | 50 | 1 | 2 | 1 | 0 | 8% |
| the control group | 50 | 1 | 2 | 2 | 1 | 12% |
| $X^2$ | - | 6.259 | 7.154 | 7.152 | 8.241 | 6.324 |
| P | - | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |

In the observation group, there were 2 cases of dissatisfaction, 17 cases of general satisfaction

and 31 cases of satisfaction, P<0.05.

In the control group, 8 were dissatisfied, 12 were generally satisfied and 30 were satisfied, P<0.05.

Table 3 satisfaction scores of patients in the two groups during nursing [n(%)]

| groups | n | satisfaction | general satisfaction | dissatisfaction | Total rate |
|---|---|---|---|---|---|
| the observation group | 50 | 31 | 17 | 2 | 48 (96%) |
| the control group | 50 | 30 | 12 | 8 | 42 (84%) |
| $X^2$ | - | 3.245 | 3.274 | 3.145 | 3.269 |
| P | - | <0.05 | <0.05 | <0.05 | <0.05 |

## 4. Discussion

Stroke patients with hemiplegia after a 65% chance to sensory disorder, partial body feels obstacle, false sensory disturbance of nerve root type, hand, mouth syndrome, its overlapping feeling obstacle and ipsilateral sexual disorders are a serious impediment to the recovery of patients, patients' limb movement ability is poor, or totally unable to exercise, no perception, lead to the patient's psychological pressure surge, meanwhile also advances by steps and drug treatment to relieve symptoms in patients with hemiplegia, short time research shows that the earlier inspection on the patient's body analysis, training plan, the faster you will be able to help patients to reduce the hemiplegia severity, As soon as possible to help patients with simple body movements, from passive to active sports movement, let patients gradually reduce the dependence of nursing staff, encourage patients to restore motion, position, vibration, normal receiving physical stimulation, to identify the body, the nursing intervention in addition to the early, middle and late, also focus on the patient's needs, other common analysis of the elderly on the dietetic hygiene and prone to prevention, under the guidance of using acupuncture and promote physical stimuli and body awareness and spiritual communication with patients, and explain the relevant taboo in nursing items, to avoid “a wave of open something new”, A more efficient nursing effect can be achieved. Combined with the above data comparison, it can be seen that taking basic rehabilitation training and giving nursing help based on the comprehensive evaluation of the patient's condition can make the body function recover faster, keep the body and mind happy, and greatly improve the satisfaction of nursing.

To sum up, elderly stroke hemiplegia, active nursing intervention, early and comprehensive analysis of patients' problems, the development of nursing intervention plan, close communication and education with patients, strengthen the scope of nursing and intervention, the impact on patients' limb function recovery is greater, should be paid attention to in clinical.

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