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Application of Nursing Rehabilitation Guidance Training Combined With Continuous Passive Exercise In Knee Fracture Operation

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Abstract: *Objective to explore the combination of nursing rehabilitation guidance and continuous wave passive exercise, for the physical situation of knee fracture surgery patients. Methods 100 cases of knee fracture surgery patients were selected from September 2020 to September 2021 in our hospital. The two groups of patients were divided into 50 observation group and control group The control group used conventional nursing methods, the observation group used nursing rehabilitation + continuous passive exercise results before nursing, ROM VAS score of the two groups, P>0.05, the difference was not statistically significant; After nursing, ROM Angle and VAS score of the observation group were better than those of the control group (P<0.05, the difference was statistically significant). After surgery, excellent and good rate of knee function recovery in the observation group was 94%, and 78% in the control group. Compared with the control group, the observation group was better than the control group (P<0.05, the difference was statistically significant) Nursing rehabilitation guidance training combined with continuous passive exercise can help patients with knee fracture recover faster and better after surgery, which is conducive to improving the function of knee joint and reducing pain.*

Keywords: *Knee Fracture; Surgery; Rehabilitation Nursing; Continuous Passive Exercise*

1. Introduction

Knee joint parts of fracture is usually decreased bone density or the muscle atrophy Joint capsule contraction External force, caused by trauma, etc, the clinical use more surgical treatment Surgical treatment can improve the effect of fracture healing to a certain extent, but the recovery of knee joint function still need to last a long time Rehabilitation nursing on at this stage, which can ensure the functional recovery of patients.

2. General information and methods

2.1. The general information

A total of 100 patients with knee fracture who were treated in our hospital from September 2020 to September 2021 were selected. The two groups of patients were divided into the observation group and the control group, which were divided into 50 rows each. The general data of the two groups were not statistically significant. [1]

2.2. Method

Control group: routine nursing charge patients pay attention to the relevant matters after the surgery, medication guidance to carry out rehabilitation exercise group: passive exercise rehabilitation nursing + hots passive exercise: each time for 1 ~ 2 hours Degree of knee flexion and measurements made before exercise, based on the results as a measure to adjust the parameters Exercise when the patients suffering from child on the passive movement instrument, completes the knee measurement dynamic range, the parameter is set to automatically add quantity, increase 10 degrees every day, gradually increased to the maximum Angle of rehabilitation nursing of flexion and extension Completes the psychological rehabilitation nursing, tell patients, adhere to the rehabilitation training is very important, improve patient compliance You after surgery in patients with limb rehabilitation exercise guidance to recovery as the foundation, to carry out the body of the active and passive movement of passive movement

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including using instrument, massage massage nursing staff and so on Active training including body lift Limb weight-bearing exe.[2]

2.3. Observation target

1) The ROM angles of the knee and knee were measured before and after nursing care to assess the recovery of joint function.

Table 1: ROM Angle determination of knee joint

ROM Angle	determine
91 °~120 °	excellent
61 °~90 °	Good
31 °~60 °	Fair
0 °~30 °	difference

2) Visual analog scale (VAS) was used to evaluate the pain degree of patients after surgery, with 10 points representing pain gone and 0 points indicating no pain.

3. Result analysis

3.1. Comparison of ROM VAS scores between the two groups before and after nursing

Before nursing, ROM VAS score of the two groups was compared, P>0.05, the difference was not statistically significant; After nursing, ROM Angle and VAS score of the observation group were better than those of the control group (P<0.05), and the differences were statistically significant as shown in Table 2.

Table 2: COMPARISON of ROM VAS scores between the two groups before and after nursing

Group	N	Rom Angle（°）		VAS Score（Branch）	
		Before Nursing	After Nursing	Before Nursing	After Nursing
Control Group	50	30.44±11.32	73.27±1.45	7.66±1.45	5.41±1.21
Observation Group	50	30.55±11.31	109.43±2.26	7.69±1.44	1.22±0.51
T	-	0.038	82.543	0.087	20.212
P	-	0.972	0.000	0.875	0.000

3.2. Comparison of functional recovery of knee joint between two groups after operation

Table 3: Comparison of postoperative knee function recovery between the two groups n, %

Group	N	Excellent	Good	Fair	Difference	Excellent Rate
Control Group	50	30	17	2	1	94%
Observation Group	50	20	19	8	3	78%
X2						5.332
p						0.000

After surgery, the excellent and good rate of knee function recovery was 94% in the observation group and 78% in the control group. Compared with the two groups, the observation group was superior to the control group (P<0.05), and the difference was statistically significant as shown in Table 3.

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4. Conclusion

Knee fracture patients after surgical treatment, still need a long time to recover and fractures healing period, patients due to the limitation of activity and pain, prone to negative emotions And stiff joints, muscle atrophy and other complications, all can delay surgery in patients with rehabilitation process, causing some bad healing After knee fracture surgery, patients need to be given high-quality nursing services, in order to better reduce all kinds of adverse factors of bone wound healing, to help patients with knee joint recovery faster and better In this process, it is necessary to carry out continuous passive exercise, at the same time with nursing guidance services, to carry out systematic and scientific rehabilitation training, to help patients better recover health, timely participation in daily activities.[3]

Passive exercise equipment is an effective tool for passive exercise. In view of the poor compliance of rehabilitation training or insufficient tolerance of the body due to pain after knee fracture surgery, auxiliary equipment is used to maintain continuous passive exercise, so as to promote the patient to recover the knee function faster after surgery. Passive motion instruments can improve the range of motion of joints and muscles. Let patients avoid pain and complications, and improve the quality of life.

This study confirmed that before nursing, the ROM angle and VAS score of the two groups were compared ($P > 0.05$), and the difference was not statistically significant; After nursing, the ROM angle and VAS score of the observation group were better than those of the control group ($P < 0.05$). After operation, the excellent and good rate of knee function recovery in the observation group was 94% and that in the control group was 78%. Compared with the two groups, the observation group was better than the control group ($P < 0.05$).

It can be seen that nursing rehabilitation guidance training combined with continuous passive exercise can help patients with knee fracture recover faster and better after operation, improve knee function and reduce pain.

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