

Analysis of the Effect of the Application of the Concept of Rapid Rehabilitation in Perioperative Patients of Hepatobiliary Surgery

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Abstract: Objective: To study the application effect of the concept of rapid rehabilitation in perioperative patients of hepatobiliary surgery. Methods: 124 patients with liver and gallbladder diseases who underwent surgery in our hospital from January 2016 to June 2019 were selected as the research objects. According to the different nursing methods, all patients were divided into experimental group and conventional group. Conventional group adopted conventional nursing methods, and experimental group implemented rapid rehabilitation nursing. After the operation, the indexes of the two groups were compared, and the patients, quality of life and satisfaction of the two groups were compared. Results: The indexes of the experimental group were significantly better than those of the conventional group, and there were significant differences ($P < 0.05$). The quality of life score of the experimental group was significantly higher than that of the conventional group, with significant difference ($P < 0.05$). The satisfaction of the experimental group was 93.54%, higher than that of the conventional group (67.86%), the difference was significant ($P < 0.05$). CONCLUSION: Rapid rehabilitation nursing has a significant effect on perioperative patients in hepatobiliary surgery, which is worthy of application and promotion.

1. Introduction

Surgery as an important means of treatment of hepatobiliary malignant tumors, to help patients clear lesions, enhance immunity. However, due to the complexity of surgery, long time and high probability of complications, patients have tremendous physical and mental pressure during treatment, which affects the rehabilitation process of patients. The concept of rapid rehabilitation is a series of nursing and rehabilitation methods centered on patients, which can solve patients' physical and mental stress, improve patients' compliance and coordination, speed up patients' rehabilitation process, and enhance the therapeutic effect of surgery. The application of the concept of rapid rehabilitation in perioperative patients of hepatobiliary surgery has a remarkable effect and can quickly improve the therapeutic effect of patients. The report is as follows.

2. Data and Methods

2.1 General Information

From January 2016 to June 2019, 124 patients with liver and gallbladder diseases who underwent surgical treatment in our hospital were selected as the study subjects, including 70 males and 54 females, aged from 24 to 63 years. According to the different nursing methods, all patients were divided into experimental group and conventional group, 62 cases in each group, which included the following criteria: 1) patients and their families signed the informed letter of rapid rehabilitation; 2) all patients did not have serious hypertension, heart disease and other diseases; 3) excluded severe psychiatric patients; 4) Child grade of liver function was A; Diseases include various liver space-occupying lesions. The male-to-female ratio in the experimental group was 36:26, aged (46.89 ± 4.55), 10 cases of hepatic hemangioma, 19 cases of primary hepatocellular carcinoma, 11 cases of secondary hepatocellular carcinoma and 22 cases of hepatolithiasis; in the conventional group, the male-to-female ratio was 34:28, age (46.35 ± 4.47), 12 cases of hepatic

hemangioma, 17 cases of primary hepatocellular carcinoma, 10 cases of secondary hepatocellular carcinoma and 23 cases of hepatolithiasis. There was no significant difference in gender, age and other general data between the two groups ($P > 0.05$).

2.2 Nursing Methods

Routine nursing methods were mainly used in the routine group, including general psychological nursing, pre-operative nursing education, medication nursing, post-operative precautions, preoperative preparation and so on, so that patients and their families could actively cooperate with treatment and nursing.

The patients in the experimental group were given fast rehabilitation nursing on the basis of routine nursing in the routine group, which was carried out during the perioperative period of hepatobiliary surgery.

2.2.1 Preoperative Nursing

Preoperative nursing is mainly for patients to prepare for surgery and carry out nursing, the main contents are: first, routine admission assessment, comprehensive assessment of patients' symptoms, physical quality, psychological state, etc., to help patients achieve the most suitable state for surgery. Control the patient's diet to ensure the patient's nutritional health. Fast 6 hours before operation, abstain from drinking 2 hours ago and take 400-500 ml 10% glucose solution orally. Secondly, patients are required to give up smoking and alcohol before operation, and guide patients to breathing training. At the same time, health education should be given to patients to guide them to understand liver and gallbladder diseases, surgical treatment and medication process, so as to effectively improve the therapeutic effect of patients. Thirdly, according to the doctor's advice, we should improve the preparation for the operation, make preparations for blood collection and skin care, so as to better prepare for the operation and make preparations for the success of the operation.

2.2.2 Intraoperative Nursing

First of all, nurses should help patients to use supine position, continuously detect the vital signs of patients, and inform the attending doctor in time if there is any abnormality. Secondly, according to the doctor's instructions, indwelling the gastric tube and urinary catheter, reasonable anesthesia, and continuous observation of patients' consciousness symptoms. Mattress and abdominal lavage fluid heating were used to ensure the normal body temperature of the patients. Patients with various pipeline care, to avoid the occurrence of infection. Finally, after awakening anesthesia, help patients carry out hip lifting exercises, acupoint massage, etc., to help patients dredge blood vessels and reduce soreness. After the patient's vital signs are stable, help the patient to sit up 1-2 times, 5-10 minutes each time, and drink a little water 6 hours after awakening to help the patient recover gradually.

2.2.3 Postoperative Nursing

First of all, according to the actual situation of patients, design rehabilitation plan, according to the rehabilitation plan to guide patients to gradually improve physical and mental health. Respiratory care, early to aerosol inhalation mainly, encourage patients to cough more effectively, until patients breathe gradually stabilized, natural breathing, at the same time, pay attention to expectoration. Secondly, in dietary care, according to the patient's improvement, real-time adjustment of the patient's diet, generally speaking, two days after surgery patients can eat liquid food, three days can be semi-liquid food, 4-5 days for soft food, 6-8 days for soft solid food, a small number of meals. Moreover, we should pay attention to balanced nutrition and reasonable collocation to help ensure the nutrition needed by patients. Nurses should also strengthen communication with patients, understand the psychological situation of patients, implement guidance, improve patient coordination, and promote patient rehabilitation. Thirdly, we should do a good job of rehabilitation nursing according to the actual situation of patients. In the case that patients can not get out of bed, help patients do turning over, sitting up, hand and foot exercises, and improve the physical quality of patients. After getting out of bed, patients should be assisted in

indoor and outdoor activities, pay attention to patients' life care, and maintain patients' personal hygiene and health. Finally, discharge guidance tells patients what should be paid attention to after discharge, helps patients to go through discharge procedures, fills in nursing service satisfaction questionnaire, so that patients can consistently feel the importance of the hospital to patients.

2.3 Evaluation Index

Observe and compare the indicators of the two groups of patients after surgery and the quality of life of the two groups of patients. After the operation, the main indicators were the time of activity after operation, the time of first exhaust, the time of first eating after operation, the time of hospitalization and the cost of hospitalization. The quality of life is mainly patient's physiological function, social role, psychological state, emotional function, health status and so on. The scores of quality of life were 20 points and 10 questions. The higher the scores, the better the quality of life. At the same time, the satisfaction of the two groups was compared. Satisfaction=(Satisfaction+Very Satisfaction)/Total Number of Cases x 100%.

2.4 Data Statistics

This data analysis is processed by statistical software SPSS21.0, using ($\bar{x} \pm s$) as statistical measurement data, using t-test and χ^2 -test, $P < 0.05$ fully shows the statistical significance.

2.5 Comparison of Postoperative Indicators between Two Groups

The indexes of the experimental group were significantly better than those of the conventional group, and there were significant differences ($P < 0.05$). Details are shown in Table 1.

Table 1 Comparison of Postoperative Indicators between Two Groups

| Group | Number of cases | Postoperative activity time (hours) | First exhaust (Time) | Postoperative feeding time (hours) | Hospitalization time (Days) | Hospitalization expenses (10,000 yuan) |
|------------------|-----------------|-------------------------------------|----------------------|------------------------------------|-----------------------------|--|
| Experience group | 62 | 23.89±2.14 | 32.87±3.7 | 9.95±2.25 | 7.69±1.66 | 3.23±1.56 |
| Routine group | 62 | 35.14±3.65 | 58.46±3.98 | 25.38±4.65 | 14.46±2.55 | 4.69±1.89 |
| χ^2 value | - | 13.5843 | 9.8665 | 18.6953 | 9.6835 | 12.4365 |
| P value | - | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |

2.6 Comparison of Quality of Life between Two Groups

The quality of life score of the experimental group was significantly higher than that of the conventional group, with significant difference ($P < 0.05$). Details are shown in Table 2.

Table 2 Comparison of Quality of Life Scores between the Two Groups (Scores)

| Group | physiological function | Mentality | social role | Emotional function | Health score |
|------------------|------------------------|------------|-------------|--------------------|--------------|
| Experience group | 15.87±3.14 | 16.57±2.26 | 17.26±1.58 | 16.96±2.65 | 17.55±0.36 |
| Routine group | 12.33±3.26 | 13.34±1.98 | 11.54±2.49 | 12.86±2.48 | 13.65±0.45 |
| χ^2 value | 9.6528 | 10.3354 | 12.3654 | 11.5624 | 11.6982 |
| P value | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |

2.7 Comparisons of Patients' satisfaction between Two Groups

The satisfaction of the experimental group was 93.54%, higher than that of the conventional group (67.86%), the difference was significant ($P < 0.05$). Details are given in Table 3.

Table 3 Comparisons of Patient Satisfaction between the Two Groups

| Group | Number of cases | Very satisfied | Satisfied | Dissatisfied | Satisfaction [n (%)] |
|------------------|-----------------|----------------|-----------|--------------|----------------------|
| Experience group | 62 | 20 | 38 | 4 | 58(93.54) |
| Routine group | 62 | 10 | 28 | 24 | 38(67.86) |
| t value | - | | | | 4.5632 |
| P value | - | | | | 0.0214 |

3. Discussion

As an important organ of human body, liver and gallbladder have complex structure and diverse functions, and are the key organs to provide energy and material for human organs and tissues. Liver and gallbladder can not only metabolize protein and fat, but also secrete bile, coagulate and detoxify. It plays an important role in human operation. However, due to environmental pollution, dietary habits and so on, liver and gallbladder diseases, such as malignant tumors, hepatolithiasis, often need surgical treatment. However, after the operation, the patient's immune function declines, inflammation increases and other problems exist, making the mortality and incidence of patients increase, seriously affecting the physical and mental health of patients. In order to effectively improve the patient's condition, the concept of rapid rehabilitation emerged as the times require. The concept of rapid rehabilitation was put forward by Professor Henrik Kehlet of Denmark in 2011. The main contents of the concept are: building a good medical and health care team; quality pipeline nursing; perioperative nutrition nursing; rehabilitation plan, etc. Its purpose is to help patients recover their physical and mental health as soon as possible and improve their health.

Zhang Ling [2] believes that the concept of rapid rehabilitation is to carry out perioperative care for patients, constantly optimize the nursing program, shorten the recovery time of patients, and help patients recover quickly. Under the effect of the rehabilitation concept, the nursing satisfaction of the patients in the study group was 92.0%, higher than that of the control group (68.0%), which indicated that the rehabilitation concept could enhance the trust and satisfaction of patients, improve the diet and rehabilitation course of patients, and enhance the rehabilitation process of patients. Liu Xiaolan et al. [3] believed that the fast rehabilitation surgery group left bed earlier than the control group, the time of eating and anal scheduling was significantly increased, the hospitalization time of patients was shortened, and the hospitalization cost of patients was reduced, which indicated that the application of fast rehabilitation surgery concept in patients undergoing hepatobiliary surgery was safe, economical and reliable. Wang Yan [4] believes that in the perioperative nursing of patients undergoing hepatobiliary surgery, the implementation of the concept of rapid rehabilitation surgery has a significant effect, which is conducive to the recovery of patients after surgery, and also improves patient satisfaction.

The experimental study shows that the experimental group with fast rehabilitation nursing is superior to the conventional group in various indicators after operation, and the comparison has difference, with statistical significance ($P < 0.05$). The results are similar to those of Zhang Ling and Liu Xiaolan, which indicates that this study demonstrates the effect of applying rapid rehabilitation nursing in perioperative patients of hepatobiliary surgery. In terms of quality of life, patients' psychological state, emotional function and social role are also tending to improve, and the data are better than those of the conventional group. This shows that under the effect of rapid rehabilitation nursing, nursing staff can help patients deal with psychological burden, improve patients' physical quality and speed up the process of rehabilitation. In terms of satisfaction, the satisfaction of the experimental group was 93.54%, higher than that of the conventional group (67.86%), the difference was significant ($P < 0.05$). In accordance with Zhang Ling's research, it once again proves the value of fast rehabilitation nursing.

To sum up, the fast rehabilitation has changed the traditional way of liver and gallbladder nursing, can reduce the occurrence of complications, improve the physical and mental health of patients, improve patient satisfaction, and accelerate the process of patients' surgical rehabilitation. The application of rapid rehabilitation nursing in perioperative patients of hepatobiliary surgery has remarkable effect, which is worthy of application and promotion.

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