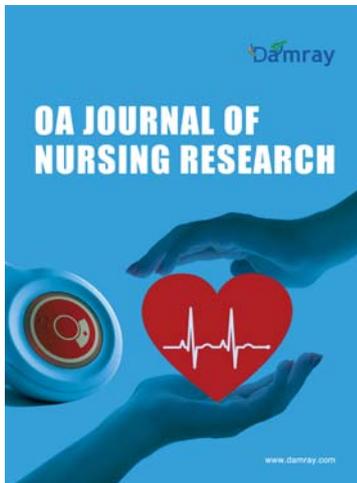


Effect of Goal Oriented Nursing Under Eras Concept on Promoting The Recovery of Gastrointestinal Function after Liver Cancer Surgery

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Abstract

Objective: To observe the effect of target oriented nursing on the recovery of gastrointestinal function in patients with liver cancer under the concept of eras. **Methods:** 60 patients with liver cancer who underwent hepatectomy in our hospital from May 2021 to May 2022 were selected for observation. They were divided into groups by random number method. 30 patients were summarized into the study group by goal-oriented nurses under the concept of eras, and 30 patients were summarized into the control group by routine nurses. The nursing effects were compared and observed. **Results:** Compared with the control group, the recovery time indicators of the study group were significantly shorter, $P < 0.05$; compared with the control group, the total incidence of complications in the study group was significantly lower, $P < 0.05$; compared with the control group, the nutritional status of the study group significantly better, $P < 0.05$. **Conclusion:** under the concept of eras, the effect of goal-oriented nursing in patients with liver cancer is prominent, which can promote the recovery of gastrointestinal function after operation. It is recommended to popularize it.

Keywords

Liver Cancer Operation, Eras Concept, Goal Oriented Nursing, Recovery of Gastrointestinal Function

1. Introduction

Hepatectomy is the effective and preferred treatment for hepatocellular carcinoma; however, because surgery can cause stress for patients, it takes a long time to recover after surgery and is prone to complications, especially for gastrointestinal dysfunction, which can have a serious impact on patients' postoperative recovery and can even reduce the quality of survival [1]. Therefore, effective nursing interventions are needed after surgery, but conventional care cannot meet the increasing nursing needs of patients [2]. In this study, 60 patients with hepatocellular carcinoma who attended our hospital from May 2021 to May 2022 for hepatectomy were selected for a controlled study to analyze the value of implementing goal-oriented care under the ERAS concept, and the results are as follows.

2. Data and methods

2.1. General data

Sixty patients with hepatocellular carcinoma who visited our hospital for hepatectomy from May 2021 to May 2022 were selected for observation. Inclusion criteria: (1) all patients were clearly diagnosed with primary hepatocellular carcinoma; (2) those who matched the indications for hepatectomy; (3) all had gastrointestinal dysfunction after surgery; (4) for this study, patients voluntarily participated and gave informed consent to the relevant operations. Exclusion criteria: (1) those with severe preoperative cardiac, pulmonary, or renal dysfunction; (2) those with previous gastrointestinal malignancy or liver resection or biliary tract surgery ≥ 2 times; (3) those with intraoperative abnormalities that may prevent ERAS from being performed; (4) those with underlying diseases such as hypertension and diabetes. Thirty patients were grouped by randomization, and 30 patients who received goal-oriented care under the ERAS concept were included in the study group, age: (58.20 ± 2.45) years as the mean (range: 50-71 years), 18 males and 12 females, disease duration: (2.36 ± 0.45) years as the mean (1-5 years); 30 patients who received usual care were included in the control group, age: (58.25 ± 2.40) years as the mean (range: 51-70 years), 19 males, 11 females, duration of disease: (2.35 ± 0.43) years as the mean (1-5 years), analysis of the comparability of the study: the data of the 2 groups were statistically $P > 0.05$, comparative study could be implemented.

2.2. Methods

Conventional gastrointestinal care was given to patients in the control group, i.e., patients were given nutritional guidance upon admission, preoperative abstinence from drinking and eating, saline enema, and placement of a gastric tube; during surgery, the patients were kept warm, rehydrated, and drained by a tube; after surgery, the patients were told to abstain from drinking and eating, and the gastrointestinal tract was continuously decompressed, and parenteral nutrition support was implemented. Patients were instructed to eat liquid food on the same day and gradually transition to a normal diet. In the study, goal-oriented care under the ERAS concept was implemented by: not placing gastric tubes and enemas based on the actual condition of the patients, but implementing gastrointestinal preparations for patients with factors that affect surgical operations or constipation; implementing gastrointestinal care, and using various methods of education, such as videos, written and verbal explanations, to explain to patients and families about gastrointestinal care (ERAS concept) before surgery. ERAS concept measures, significance and precautions, to obtain the patient's cooperation and understanding; instruct the patient to prepare 4 bottles of nutritional preparations, 1 box of lactulose, 1 box of baby rice flour, 1 bottle of chewing gum, etc., to effectively cooperate with the gastrointestinal operation; assess the patient's nutritional status, and if the patient is accompanied by malnutrition, instruct the patient to take the nutritional preparation Kang Quan Gan orally to supplement nutrition, based on the patient's actual condition. Implement parenteral nutrition or enteral nutrition support to replenish energy, give 800mL of glucose solution (12.5%) at night before surgery, and 300mL orally on the day of surgery. ~In the first day after surgery, the patient was given clear liquid food, warm boiled water + baby rice flour; in the second day after surgery, the patient continued to be given liquid diet, and was given Kang Quan Gan several times; in the third day after surgery, the patient was given semi-liquid food such as millet porridge, tofu brain, steamed egg, etc., and was given Kang Quan Gan intermittently. In the 4th postoperative day, the diet transitioned to soft food, and Kang Quan Gan was given intermittently for a maintenance period of 1 month; on the postoperative day, the patient was instructed to carry out bed activities, which generally started 6 h after surgery when the patient's vital signs were stable, mainly including three-point support activities, ankle pump exercise of both lower limbs, fist clenching and sending interaction of both upper limbs, turning over, assistance to the patient, back and feet support, hip elevation, 1 time/2h, 10~15min/time; in the 1st postoperative d, the patient was assisted to get out of bed, ≥ 3 times/d, 30min/time. In the second postoperative day, the amount of activity was gradually increased, and the patient was given measures to promote the recovery of gastrointestinal function. Until the anal defecation and exhaustion, and if necessary, give open cork.

2.3. Observation indexes

Comparison of recovery time indexes: (1) post-operative bedtime, recovery of bowel sounds, anal venting, liquid food, and hospitalization time; (2) comparison of complications, common complications including thirst, hunger, vomiting, bloating, diarrhea, and intestinal obstruction; (3) comparison of nutrition, white blood cell count, prealbumin, serum albumin, and lymphocyte count.

2.4. Statistical methods

SPSS23.0 was used to process the data in the data and results. t was implemented to verify the ($\pm s$) measurement data

in accordance with normal analysis, X2 was implemented to verify the [n(%)] count data, and statistical significance was indicated by $P < 0.05$, indicating significant differences.

3. Results

3.1. Comparison of various recovery time indicators

In the study group, the postoperative time to bed, recovery of bowel sounds, anal venting, fluid food intake, and hospitalization were (15.15 ± 3.95) h, (8.60 ± 2.90) h, (16.25 ± 2.20) h, (17.00 ± 2.20) h, and (6.10 ± 1.20) d, respectively, while in the control group, the postoperative time to bed, recovery of bowel sounds, anal venting, fluid food intake, and hospitalization were (18.15 ± 3.45) h, (14.35 ± 2.20) h, (27.20 ± 2.02) h, (28.18 ± 2.10) h, (8.25 ± 1.15) d respectively, compared with the control group, all recovery time indicators were significantly shorter in the study group, $t = 0.003$, < 0.001 , < 0.001 , < 0.001 , < 0.001 .

3.2. Comparison of complications

In the study group, there were 3 cases of complications, 1 case of thirst, 1 case of abdominal distension, 1 case of hunger, with a total incidence of 10.00%; in the control group, there were 12 cases of complications, namely, 2 cases of thirst, 3 cases of hunger, 1 case of vomiting, 3 cases of abdominal distension, 2 cases of diarrhea, 1 case of intestinal obstruction, with a total incidence of 40.00%. $\chi^2 = 0.007$.

3.3. Comparison of nutrition

Compared with the control group, the nutritional status (white blood cell count, prealbumin, serum albumin, and lymphocyte count) was significantly better in the study group, $P < 0.05$.

Table 1. Comparison of nutritional status ($\bar{x} \pm s$)

Groups	Number of cases	Leukocyte count ($10^9/L$)		Prealbumin (g/L)		Serum albumin (g/L)		Lymphocyte count (%)	
		Before Care	After Care	Before Care	After Care	Before Care	After Care	Before Care	After Care
Research Groups	30	3.50 ± 1.20	10.75 ± 2.05	235.52 ± 11.25	248.15 ± 14.30	35.30 ± 2.26	40.98 ± 2.72	40.15 ± 1.58	20.15 ± 5.45
Control groups	30	3.55 ± 1.18	7.45 ± 2.15	235.45 ± 10.95	240.10 ± 13.25	35.45 ± 2.25	37.75 ± 2.50	40.20 ± 1.45	28.15 ± 5.50
t		0.163	6.084	0.024	2.262	0.258	4.789	0.128	5.659
P		0.871	<0.001	0.981	0.027	0.798	<0.001	0.899	<0.001

4. Discussion

Liver cancer, as a common malignant tumor in clinical practice, poses a serious risk to the health of residents. Liver cancer is characterized by recurrence, easy metastasis, and difficulty in early detection, etc. The incidence of this disease shows a trend of continuous increase year by year, and the mortality and morbidity rate of male patients are higher compared with that of females [3]. Liver cancer is mainly treated by surgery, but complications often occur after surgery, especially gastrointestinal dysfunction, which affects recovery [4]. Therefore, effective nursing interventions are needed during surgery, but conventional care is ineffective. With the development and application of the concept of accelerated rehabilitation surgery (ERAS) in recent years, it has been applied to the surgical process to effectively reduce the stress response, promote postoperative recovery, shorten the length of hospital stay, and promote surgical outcomes. In our hospital, we implemented goal-oriented care for patients under the ERAS concept and obtained satisfactory results. The results showed that: compared with the control group, the study group had significantly shorter recovery time indexes, significantly lower total complication rate, and significantly better nutrition, $P < 0.05$. It is evident that goal-oriented care under the ERAS concept is more effective and can promote patients' gastrointestinal tract function recovery, mainly because goal-oriented nursing is based on the ERAS concept and aims to improve the recovery of patients' gastrointestinal tract functions, so as to reduce surgical stress, promote patients' early recovery of gastrointestinal tract functions, lead to fewer complications, shorten hospitalization time, and promote patients' recovery [5].

In conclusion, goal-directed care under the ERAS concept in patients with hepatocellular carcinoma has outstanding effects and can promote the recovery of postoperative gastrointestinal function, and is recommended to be promoted.

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