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Study on the Value of Operating Room Nursing Under the FTS Concept in Patients Undergoing Laparoscopic Myomectomy

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Abstract

Objective: To study and analyze the value of operating room nursing under the concept of rapid rehabilitation surgery (FTS) in patients undergoing laparoscopic myomectomy. **Methods:** 76 patients with uterine fibroids admitted to our hospital from September 2022 to October 2024 were selected to receive laparoscopic myomectomy. They were randomly divided into a study group and a control group, with 38 cases in each group. The control group received routine nursing, while the research group also received operating room nursing under the FTS concept. The postoperative recovery, perioperative inflammatory response, nursing satisfaction, and so on were evaluated and compared between the two groups. **Results:** The first postoperative exhaust time, the first time to get out of bed, the first postoperative drinking time, and the postoperative hospitalization time of patients in the study group were shorter than those in the control group. The levels of inflammatory response indicators such as WBC and CRP in the study group were lower than those in the control group, and the total nursing satisfaction was higher than that in the control group, with statistical significance ($P < 0.05$). **Conclusion:** The application of operating room nursing under the FTS concept in patients undergoing laparoscopic myomectomy can effectively promote early postoperative recovery, improve early postoperative inflammatory response, and enhance nursing satisfaction.

Keywords

Rapid rehabilitation surgery concept; Operating room nursing; Laparoscopy; Hysteromyomectomy; Inflammatory response; Nursing satisfaction

Uterine fibroids are a relatively common benign lesion in women of childbearing age, mainly characterized by changes in menstruation and abdominal mass [1, 2]. In the early stage of the lesion, most patients with uterine fibroids lack typical manifestations, so the early admission rate is low, and abnormal changes in menstruation, abdominal mass, and increased vaginal secretions will occur along with the progression of the disease, affecting normal life [3]. Clinical treatment for uterine fibroids is mainly divided into conservative treatment and surgical treatment, and myomectomy is the main treatment for women with fertility needs [4]. As a common reproductive system disease in women, the occurrence of uterine fibroids is related to diet, environment, infection, endocrine factors, etc., which will increase the risk of infertility in women of reproductive age. With the development of minimally invasive medicine, the application of laparoscopic technology in the treatment of this disease has gradually increased, which can effectively control surgical trauma, reduce the risk of perioperative complications, and improve the efficiency of early postoperative rehabilitation [5]. In order to further give full play to the advantages of minimally invasive surgery for patients undergoing laparoscopic myomectomy, our hospital has implemented operating room nursing under the concept of rapid rehabilitation surgery (FTS) for some cases in recent years, which is a new nursing model with the basic goal of rehabilitation promotion and can be combined with the individual characteristics of patients to ensure the rehabilitation effect. In this study, combined with the data of some patients undergoing laparoscopic myomectomy in our hospital in recent years, the value of operating room nursing under the FTS concept was analyzed.

1. Data and Methods

1.1 General information

76 patients with uterine fibroids admitted to our hospital from September 2022 to October 2024 were selected to receive laparoscopic myomectomy. Inclusion criteria: those diagnosed with uterine fibroids with benign lesions; Patients who meet the indications for laparoscopic surgery; Patients who choose to receive surgical treatment; Patients with no history of abdominal or pelvic surgery; Patients who have not received immunosuppressive, hormone, or drug intervention affecting gastrointestinal motility recently; Mental, psychological and cognitive status are normal. Exclusion criteria: Patients with cardiopulmonary function unable to tolerate anesthesia or surgery; Conversion to laparotomy; Patients with acute pancreatitis, obstructive jaundice, and other diseases; Patients with abnormal functions of important organs; Diagnosed malignant lesions; Blood clotting disorder; People with infectious diseases. The study group was 29-60 (40.23 ± 4.21) years old and the lesion diameter was 4-8 (5.77 ± 0.81) cm. The control group was 30-61 (41.04 ± 4.60) years old and the lesion diameter was 4-8 (5.58 ± 0.92) cm. There was no statistical significance in the comparison of general data between the two groups ($P > 0.05$).

1.2 Methods

1.2.1 Control group

Routine nursing was carried out, ward rounds were carried out 1 day before surgery according to surgical arrangements, and health education was carried out according to patients' surgical arrangements, explaining the surgical procedures, precautions, and coordination skills, focusing on the requirements of fasting and alcohol prohibition before surgery, so as to ensure the smooth progress of preoperative preparation. According to the operation time, the patient was transferred to the operating room 30 minutes before surgery, the doctor cooperated with the anesthesia and operation, and the monitoring of the patient's vital signs was improved during the operation. After the operation, the patient was transferred to the observation room for observation, and the patient was transferred back to the ward when there was no abnormal condition. Postoperative ward rounds were carried out 2-3 days after the operation to evaluate the postoperative recovery of patients and carry out postoperative health education.

1.2.2 Research group

Operating room nursing under the FTS concept should be implemented simultaneously on the basis of routine nursing, as follows:

(1) Preoperative care: Around 2 days before surgery, the patients were selected to visit during the time period after the lunch break when they were in good condition, and self-introduction was carried out after checking patient information. First, through the way of inquiry, to understand the patient's emotional state, feelings and ideas, and views on their own disease and surgery. Combined with the individual situation of patients, through one-on-one explanation, popular science videos, and other ways, to introduce the characteristics of laparoscopic surgery, preoperative and postoperative precautions, rehabilitation nursing content, etc., and patiently explain the problems raised by patients. The patient is introduced to the care plan and instructed to perform deep breathing exercises, gum chewing exercises, and ankle pump exercises. During preoperative rounds, strengthen the assessment of patients' emotional status and carry out psychological care in combination with patients' negative emotions, such as relieving patients' tension through verbal encouragement, relieving patients' anxiety and depression through sharing of good prognosis cases and family support, etc., and controlling psychological stress response. Preoperative routine fasting, about 400ml of glucose solution orally given 2 hours before surgery. Get the patient into the operating room on time.

(2) Intraoperative care: After entering the operating room, the position should be carried out according to surgical requirements, and thermal insulation should be applied to non-surgical parts. A thermal insulation blanket should be applied when the temperature is low. Intraoperative infusion solution and irrigation solution were heated by liquid insulation measures, and the liquid temperature was controlled at about 37 ℃. Strengthen the patient's

emotional comfort before anesthesia, and relieve the patient's tension and anxiety. Cooperate with the doctor to complete the operation. After the operation, the heat preservation was carried out by quilt.

(3) Postoperative care: After surgery, ward nurses were asked to drink water after the patient's vital signs were stable, and the pain symptoms of patients were relieved through analgesic drug intervention, limb massage, and postural adjustment in combination with the patient's pain status. About 6 hours after the operation, no abnormal conditions were found, and the patient was instructed to carry out a liquid diet, which was light and high in protein. If there is no abnormality, assist the patient in carrying out activities such as sitting up and standing in bed, and do a good job of protection to avoid falling. Increase postoperative activity gradually.

1.3 Observation indicators

1.3.1 Assessment of postoperative recovery

The first postoperative exhaust time, the first time to get out of bed, the first postoperative drinking time, and the postoperative hospitalization time of the two groups of patients were statistically analyzed.

1.3.2 Evaluation of perioperative inflammatory response

Fasting venous blood (3 ml/case) was collected 30 min before surgery and 2d after surgery and sent to the laboratory for C-reactive protein (CRP), white blood cell count (WBC), and other levels to evaluate the inflammatory status of the body.

1.3.3 Nursing satisfaction survey

The nursing satisfaction of each case was evaluated using the department nursing satisfaction questionnaire, involving perioperative diagnosis and treatment experience, professionalism, communication, life and psychological support, etc. The total score was 10 points, 9-10 was very satisfied, 6-8 was satisfied, and < 6 was dissatisfied.

1.4 Statistical methods

SPSS23.0 statistical software was used for processing, measurement data were represented by ($\bar{x} \pm s$), comparison by t-test, counting data by percentage, comparison by χ^2 test, and P < 0.05 was considered statistically significant.

2. Results

2.1 Comparison of postoperative recovery between the two groups: see Table 1

Table 1. Comparison of postoperative recovery between the two groups ($\bar{x} \pm s$)

group	First exhaust time (h)	First time out of bed (d)	Duration of first postoperative drinking water (h)	duration of postoperative hospitalization (d)
Study Group/38	18.32±5.42	1.78±0.81	6.52±1.24	5.74±1.32
Control group/38	27.23±6.85	2.90±0.95	9.44±1.56	6.98±1.43
t	6.288	5.530	9.033	3.928
P	< 0.001	< 0.001	< 0.001	< 0.001

2.2 Assessment of perioperative inflammatory response of patients in the two groups: See Table 2

Table 2. Comparison of perioperative inflammatory response indexes between the two groups ($\bar{x} \pm s$)

group	WBC ($\times 10^9$/L)		CRP (mg/L)	
	30 min before surgery	2d after surgery	30 min before surgery	2d after surgery
Study Group/38	9.11±0.75	14.39±3.12 *	8.48±0.84	13.94±2.93 *
Control group/38	8.95±0.80	19.93±4.13 *	8.17±0.92	20.11±4.85 *
t	0.899	6.598	1.534	6.712
P	0.371	< 0.001	0.129	< 0.001

Note: Compared with 30 minutes before operation, * $P < 0.05$.

2.3 Comparison of nursing satisfaction between the two groups: See Table 3

Table 3. Comparison of nursing satisfaction between the two groups (case %)

Group	Very satisfied	Satisfaction	Dissatisfy	Overall satisfaction
Study Group/38	30 (78.95)	8 (21.05)	0 (0.00)	38 (100.00)
Control group/38	21 (55.26)	11 (28.95)	6 (15.79)	32 (84.21)
χ^2				4.524
P				0.033

3. Discussion

Uterine fibroids are common diseases in modern women, and the incidence of this disease has gradually increased in recent years due to the influence of diet, environment, and other factors. Surgery is currently the common treatment for uterine fibroids. In the past, open surgery was the main treatment method, which would cause greater trauma, and patients had a longer recovery period and a higher risk of complications [6, 7]. With the development of minimally invasive medicine, laparoscopy has gradually replaced traditional surgery, providing a new option for the surgical treatment of uterine fibroids. Meanwhile, with the application of the concept of rapid rehabilitation surgery, higher requirements have been put forward for related nursing work [8]. Combined with the data of some cases of uterine fibroids undergoing laparoscopic surgery, this study analyzed the value of operating room nursing under the FTS concept applied to patients undergoing laparoscopic myomectomy. It showed that the first postoperative exhaust time, the first time to get out of bed, the first postoperative drinking time, and the postoperative hospitalization time of patients in the study group were shorter than those in the control group. The levels of WBC, CRP, and other inflammatory response indicators in the study group were lower than those in the control group, and the total nursing satisfaction was higher than that in the control group, the difference was statistically significant ($P < 0.05$). This result confirms the value of operating room nursing under the FTS concept in promoting early rehabilitation, controlling early postoperative inflammatory response, and improving nursing satisfaction.

Operating room nursing under the FTS concept is a new nursing model developed based on the concept of rapid rehabilitation surgery. According to the characteristics of surgery and the situation of cases, the corresponding nursing plan is formulated and implemented according to the nursing needs at different stages including pre-operation, intraoperation, and post-operation, which is more targeted and scientific. In the operating room nursing under the FTS concept, preoperative nursing attaches importance to health education, psychological counseling, and gastrointestinal tract preparation of patients, among which health education and psychological counseling can improve patients' understanding of perioperative diagnosis, treatment, and nursing work, improve treatment compliance, relieve psychological pressure and reduce the risk of psychological stress reaction [9]. Preoperative training, gastrointestinal preparation, etc., can avoid the stress response caused by prolonged fasting and lay the foundation for early postoperative rehabilitation. The focus of intraoperative nursing is thermal insulation intervention and psychological support, which can effectively stabilize patients' vital signs. In postoperative care, attention should be paid to early drinking water, diet, and activities, and activity plans should be developed and carried out according to the specific conditions of patients, so as to fully meet the individual needs of patients and effectively promote early postoperative rehabilitation. The clinical study on the application of perioperative accelerated rehabilitation surgical intervention in patients with laparoscopic myomectomy [10] found that the implementation of accelerated rehabilitation surgical nursing can effectively control the risk of perioperative complications of patients, relieve pain response, promote the improvement of digestive system function and sleep quality, and play a positive role in postoperative rehabilitation.

In summary, the application of operating room nursing under the FTS concept to patients undergoing laparoscopic myomectomy has outstanding value in promoting early postoperative recovery, improving early postoperative inflammatory response, and enhancing nursing satisfaction, which is worthy of development.

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