

Perioperative nursing measures and effect of colorectum polyp treated by colonoscopy

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Abstract: *Objective* To analyze the perioperative nursing measures of patients with colorectal polyp treated by colonoscopy. *Methods* eighty patients with colorectal polyps admitted to our hospital were selected as the subjects of the study, which started in March 2019 and ended in March 2022. All patients were treated with colonoscopy after entering the hospital. All patients were randomly divided into routine group and experimental group by touching red and blue balls. The patients touching red balls were treated as routine group (40 cases), and the patients touching blue balls were treated as experimental group (40 cases). The patients in routine group were given routine perioperative nursing, and the patients in experimental group were given comprehensive perioperative nursing. Hamilton Depression Scale (HAMD) scores, Hamilton Anxiety Scale (HAMA) scores and SF-36 scores were compared in each group before and after intervention. *Complications; Compliance; Satisfaction. Results* After intervention, the scores of HAMD and HAMA in the two groups were lower than before, and the scores of HAMD and HAMA in the experimental group were lower than those in the conventional group ($P < 0.05$). After intervention, the scores of quality of life in the two groups were higher than before, and the scores of quality of life in the experimental group were higher than that in the conventional group ($P < 0.05$). The total incidence of complications in experimental group and conventional group were 5.00% and 22.50%, respectively ($P < 0.05$). The total compliance of experimental group and conventional group was 95.00% and 75.00% respectively ($P < 0.05$). The total satisfaction of patients in experimental group and conventional group was 92.50% and 75.00% respectively ($P < 0.05$). *Conclusion* Perioperative comprehensive nursing measures for patients with colorectal polyp during colonoscopy treatment can improve negative emotions, reduce complications, improve compliance and quality of life, patients with high satisfaction, can play a certain application effect.

Keywords: nursing; Perioperative period, Colorectal polyp, Colonoscopy, Complications; compliance

1. Introduction

Colorectal polyp basically is to point to the pathological changes that rise in colorectal mucous membrane surface, the number of polyp is less person can have only a single, and the number is more person can have dozens to hundreds even[1]. Polyps belong to abnormal growth tissue and are often called polyps before the pathological nature is not clear. Within each segment of the large intestine, polyps most commonly occur in the sigmoid colon, followed by the rectum. The incidence of polyps gradually increases with age, and the prevalence of neoplastic polyps is between 25% and 30% in people over the age of 50[2]. Colorectal polyps rarely cause uncomfortable symptoms. Most patients are found during colonoscopy, and only a few patients have clinical symptoms such as tenesmus, polyp prolapse, and blood in the stool. However, due to the risk of cancer in some polyps, timely medical treatment is required and appropriate treatment should be selected under the guidance of doctors. Currently, colorectal polyps are generally treated with surgery. With the development of endoscopic technology and the clinical application of minimally invasive treatment concept, colonoscopy has been gradually applied in the surgical treatment of colorectal polyps[3]. The use of colonoscopy treatment, the body of patients with less damage, is conducive to their postoperative recovery. However, surgery is an invasive treatment after all, and patients are prone to negative emotions such as stress and anxiety during surgery, which reduces treatment compliance, affects the smooth operation and adversely affects

the recovery of the body[4].Therefore, during the implementation of colonoscopy, it is necessary to carry out effective perioperative nursing measures.In this study, 40 patients in the experimental group were selected from March 2020 to March 2021 to carry out perioperative comprehensive nursing intervention. The following introduction is made regarding the relevant situation of the study.

2. Data and methods

2.1 General Information

The study group was 80 patients with colorectal polyp received by our hospital. The study was started in March 2019 and completed in March 2022. All patients were treated with colonoscopy after entering the hospital. All patients were randomly divided into routine group and experimental group by touching red and blue balls. Among them, touching red balls was routine group (40 cases) and touching blue balls was experimental group (40 cases).In conventional group and experimental group, there were 11 and 12 female patients, and 29 and 28 male patients. The average age was 55.26 ± 3.69 years and 55.30 ± 3.72 years respectively. There were 5 and 4 inflammatory polyps, 14 and 15 adenomatous polyps and 21 and 21 hyperplastic polyps. Number of polyps: single polyp in 30 cases, 29 cases, multiple polyps in 10 cases, 11 cases; there were 20 and 19 polyps with broad base and 20 and 21 polyps with pedicle. The number of polyps in diameter was less than 1cm in 32 and 31 cases, between 1cm and 2cm in 8 and 9 cases. Statistical software was used to analyze the general data in this study, and $P>0.05$ was obtained, indicating the feasibility of this grouping method. Inclusion criteria :(1) after the implementation of various clinical examination items, all patients were diagnosed with colorectal polyp[5];(2) there are indications for colonoscopic surgery;(3) Patients and their family members agree to sign medical documents voluntarily. Exclusion criteria :(1) patients with cognitive dysfunction, unable to communicate through normal speech;(2) Abnormal coagulation mechanism of the body;(3) patients with abnormal liver and kidney function;(4) patients with serious cardiovascular and cerebrovascular diseases;(5) Patients with contraindications for surgery[6];(6) Patients with malignant tumors;(7) Poor compliance and reluctance to participate in researchers.

2.2 Research methods

All patients underwent colonoscopy after admission, including argon plasma coagulation and mucosal resection. The perioperative routine nursing was applied to the routine group, and the nursing staff introduced the relevant contents of the operation to the patients before the operation, and properly prepared the instruments and articles needed for the operation; Cooperate with doctors to carry out relevant surgical operations during the operation, closely monitor the patient's vital signs and timely report; After surgery, closely observe whether there are complications, and do a good job of preventive care, timely check the change of the condition, give basic care after surgery, to help patients recover in time. The perioperative comprehensive nursing was applied in the experimental group. The measures include :(1) pre-operative nursing, including health education for patients before surgery, introduction of surgical risks and surgical procedures, improvement of patients' cognitive level of the operation process, active answer to patients' questions, and help them establish their confidence in surgical treatment. If patients have negative emotions such as tension and anxiety before surgery, nursing staff should actively provide psychological guidance to help patients relieve negative emotions, inform them of the necessity of maintaining a good psychological state, enhance the trust of medical staff, and cooperate with the operation with a good attitude. Before the operation, master the operating room preparation, check the surgical instruments that may be needed during the operation, especially the instruments and equipment such as colonoscopy. The general information of the patient was checked before operation, and the patient's history of allergy and disease was comprehensively grasped.1 day before the operation, the patient was instructed to take a liquid diet, and the bowel was drained before the operation. Proper intestinal cleaning was performed to ensure clear colonoscopy vision. Colonoscopy is a key instrument for surgical treatment, so it is necessary to strengthen colonoscopy nursing. Before treatment, ensure that the colonoscopy is clean, and check whether the performance parameters of the instrument are up to standard, and improve the preparation of the instrument.(2) Nursing during the operation. During the operation, the nursing staff should closely monitor the patient's vital signs and report to the attending physician in time if abnormal conditions are found, so as to reduce the risk of the patient during the operation as much as possible. During the operation, the patient was checked in time to see if there were any uncomfortable symptoms, and psychological guidance was provided to help the patient overcome negative emotions and discomfort during the

operation. The patient was informed to carry out deep breathing, relax the body and cooperate with the operation. Nursing staff should assist doctors to carry out relevant operations, ensure the accuracy of measures during the operation, timely and accurate transfer of supplies needed during the operation, to ensure the smooth operation. When adverse events occur during surgery, it is necessary to handle them calmly and calmly to prevent them from affecting patients' emotions.(3) Post-operative care, the patient's body condition should be closely observed after the completion of the operation. At the same time, patients were examined for black stools and hematochezia after operation. Keep abreast of patient changes, actively prevent complications, and inform patients of possible complications after surgery. Psychological guidance was given to patients after operation to adjust their emotions reasonably. Inform the patient of a reasonable diet and choose light, digestible and nutrient-rich food as far as possible to avoid irritation to the intestinal mucosa and speed up recovery. When the patient's body is in a relatively stable state, the patient is informed to carry out post-operation exercise, and the patient is instructed to use exercise training to promote body recovery. Comprehensive discharge guidance was given to patients before discharge to help them develop good living habits. After the operation, clean the colonoscopy in time, and do disinfection treatment at the same time. Check whether the parameters of the instrument are abnormal and whether the performance is good. When the performance of the instrument is good, Store in the equipment room.

2.3 Observation Items

(1) Compare the mental state scores of patients in each group at different periods. The Hamilton Depression Scale (HAMD) was selected before and after the intervention.[7]Hamilton Anxiety Scale (HAMA)[8]Exercise judgment. The degree of depression was divided according to HAMD score. ① No depression: the score was lower than 7;② Possible depression: score between 7 and 16 points;③ Definitely depressed: score between 17 and 24;④ Major depression: score above 24 points. According to the HAMA score, the degree of anxiety, ① no anxiety: the score is less than 7 points;② May have anxiety: score between 7 and 14;③ Definitely have anxiety: score between 15 and 21;④ There must be obvious anxiety: the score is between 22 and 29;⑤ May be serious anxiety: Score more than 29 points.(2) The incidence of complications in each group was compared. The main complications are perforation, infection, bleeding and abdominal distention.(3) The compliance of each group was compared. Patients can fully comply with the guidance of nursing staff, actively cooperate with all nursing services, and satisfied with nursing services belongs to compliance; Patients received some services from nursing staff, but their satisfaction with nursing services could be general compliance. The patient is not willing to accept the service of the nursing staff, and is very dissatisfied with the nursing service[9].Total compliance is the sum of general compliance and compliance.(4) The quality of life of patients in each group in different periods was compared. The time of observation was before and after intervention, and the health status survey was easy to choose (SF-36)[10]The assessment was conducted on general health status, mental health, emotional functioning, social functioning, physical pain, vitality, physical functioning and physical functioning, with an overall score between 0 and 100, and the final score was positively proportional to the patient's quality of life.(5) Compare the satisfaction of patients in each group. A self-made questionnaire was used to determine the degree of satisfaction. The full score was 100. According to the final score, the degree of satisfaction was divided into low satisfaction (the final score ranged from 0 to 50), medium satisfaction (the final score ranged from 51 to 75), and high satisfaction (the final score ranged from 76 to 100).Total satisfaction is the sum of medium and high satisfaction.

2.4 Data Processing

In this paper, SPSS22.0 computing software is used to calculate all the data, percentage expression of counting data, and $\bar{X} \pm S$ expressed measurement data, and t test was performed. If the calculated results showed $P < 0.05$, there was statistical significance between the comparison data.

3. Research Results

3.1 Psychological state scores of patients in each group were compared at different periods

HAMD scores and HAMA scores in the two groups before intervention were higher than those after

intervention, and HAMD scores and HAMA scores in the conventional group were higher than those in the experimental group after intervention ($P < 0.05$). See Table 1 below for details:

Table 1: Mental state score difference of patients in each group at different periods (score)

grouping	The number of cases	HAMD scores		HAMA scores	
		Before the intervention	After the intervention	Before the intervention	After the intervention
Regular group	40	22.693.21±	17.012.37 *±	21.372.57±	16.821.72 *±
Experimental group	40	22.633.18±	11.252.01 *±	21.402.51±	10.061.50 *±
	<i>t</i>	0.084	11.723	0.053	18.734
	<i>P</i>	0.933	0.001	0.958	0.001

Note: * $P < 0.05$ (indicating the difference before and after intervention in the same group).

3.2 The incidence of complications in each group was compared

The total incidence of complications in routine group was higher than that in experimental group ($P < 0.05$). See Table 2 below for details:

Table 2: Difference in total incidence rate of complications in each group (%)

grouping	The number of cases	perforated	infection	bleeding	Abdominal distension gas	Always appear rate
Regular group	40	1 (0.00)	2 (5.00)	2 (5.00)	5 (12.50)	9 (22.50)
Experimental group	40	0 (0.00)	0 (0.00)	1 (2.50)	1 (2.50)	2 (5.00)
		X^2				5.165
		<i>P</i>				0.023

3.3 The compliance of each group was compared

The total compliance of routine group was lower than that of experimental group ($P < 0.05$). See Table 3 below for details:

Table 3: Difference of total compliance in each group (%)

grouping	The number of cases	The compliance	General compliance	nonadherence	Total compliance
Regular group	40	12 (30.00)	18 (45.00)	10 (25.00)	30 (75.00)
Experimental group	40	23 (57.50)	15 (37.50)	2 (5.00)	38 (95.00)
		X^2			6.275
		<i>P</i>			0.012

3.4 Compare the quality of life of patients in each group at different periods

Table 4: Score difference of Quality of life of patients in each group at different periods (score)

grouping	The number of cases	Before the intervention	After the intervention
Regular group	40	53.694.79±	72.355.67 *±
Experimental group	40	54.024.86±	85.636.92 *±
	<i>t</i>	0.306	9.388
	<i>P</i>	0.761	0.001

Note: * $P < 0.05$ (indicating the difference before and after intervention in the same group).

The scores of quality of life in the two groups before intervention were lower than those after

intervention, and the scores of quality of life in the routine group were lower than those in the experimental group after intervention ($P < 0.05$). See Table 4 for details:

3.5 Compare the satisfaction of patients in each group

The total satisfaction of routine group was lower than that of experimental group ($P < 0.05$). See Table 5 below for details:

Table 5: Differences in Patient satisfaction in each group (%)

grouping	The number of cases	High degree of satisfaction	Average satisfaction	Satisfaction is low	The total satisfaction
Regular group	40	13 (32.50)	17 (42.50)	10 (25.00)	30 (75.00)
Experimental group	40	24 (60.00)	13 (32.50)	3 (7.50)	37 (92.50)
		X^2			4.501
		P			0.034

4. Discuss

Colorectal polyps are common in clinic. The disease belongs to benign pathological change commonly, after coming on, the patient can appear fecal character changes and the clinical manifestation such as hematochezia, if fail to undertake control to the illness in time, hematochezia can cause anemia for long. Although most of this disease is benign, if malignant changes occur, it will develop into cancer, which will adversely affect the normal life of patients. Therefore, effective treatment should be timely selected after the diagnosis is confirmed [11]. Currently, surgical treatment is usually used for colorectal polyps, which can improve the clinical manifestations of patients to some extent. However, the treatment effect will be affected by the psychological state and compliance of patients. Perioperative nursing can provide whole-course nursing intervention during the operation of patients, thus improving the effect of surgical treatment and promoting the recovery of patients.

The application of good perioperative nursing measures in the treatment of colorectal cancer patients can improve the therapeutic effect to a certain extent, which is conducive to the recovery of patients after surgery. In Liu Dangdang [12] In this study, the perioperative comprehensive nursing measures were applied to patients with colorectal polyps, and the results showed that the total complication rate was 4.65%, and the patient's anxiety score decreased significantly. Therefore, it is believed that comprehensive perioperative care for patients can improve anxiety and reduce complications. After this study, it was found that HAMD score and HAMA score in the experimental group were significantly decreased compared with the conventional group after intervention. The complication rate of experimental group was significantly lower than that of conventional group. In terms of total compliance, the experimental group was significantly higher than the conventional group. After intervention, the score of quality of life level in the experimental group was significantly improved compared with the conventional group. In terms of satisfaction, the experimental group was significantly improved compared with the conventional group. According to the results for further analysis, implement comprehensive perioperative care for patients, preoperative psychological intervention for patients, to help improve his tension and anxiety of patients, through careful to show patients for surgery and disease related content, inform the surgical considerations and the necessity of surgical treatment, and effective solutions for patient's questions [13]. Effective psychological guidance and humanistic care can help patients reduce psychological stress, and then more actively cooperate with medical staff to ensure smooth operation and improve compliance. Active cooperation between nursing staff and doctors during the operation can ensure the smooth completion of the operation, and strict monitoring of patients' vital signs can reduce the incidence of risk events [14]. After the operation, the corresponding intervention from the aspects of exercise, diet and psychology is beneficial for the patients to recover as soon as possible. Colonoscopy nursing in each stage of surgery, strictly according to colonoscopy operation specifications, to ensure the quality of colonoscopy, to ensure the smooth completion of surgery.

In conclusion, the application of perioperative comprehensive nursing measures in the intervention of patients with colorectal polyps treated by colonoscopy can relieve negative emotions, improve compliance, reduce complications, improve life quality and satisfaction, and play an important role.

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