

Nursing Risk Management in the Prevention of Post-ERCP Pancreatitis

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Abstract: *Objective:* To study the role of nursing risk management in the prevention of post-ERCP pancreatitis. *Methods:* 80 patients who underwent ERCP in our hospital from December 2023 to April 2024 were selected and randomly divided into an observation group and a control group using the random number table method, with 40 cases in each group. The observation group was given nursing risk management interventions and patients in the control group were given routine nursing interventions, and the patients in the two groups were compared in the incidence rate of pancreatitis and the satisfaction of nursing care. *Results:* The incidence of postoperative pancreatitis in the observation group was significantly lower than in the control group ($P < 0.05$). The patient satisfaction of the observation group was significantly higher than that of the control group ($P < 0.05$). *Conclusion:* Nursing risk management after ERCP can reduce the incidence of postoperative pancreatitis and improve patient satisfaction.

Keywords: Nursing risk management; Post-ERCP; Prevention; Pancreatitis

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1. Introduction

Endoscopic retrograde cholangiopancreatography (ERCP) has been an important diagnostic method for hepatobiliary and pancreatic diseases for more than 60 years^[1]. However, because of the invasive nature of the operation, the patients are often prone to postoperative complications. Currently, there is no uniform definition of PEP. The European Society for Gastrointestinal Endoscopy (ESGE)^[2] states that pancreatitis (PEP) is defined as the development of new or more severe abdominal pain after the operation and the need for a prolonged planned hospital stay with pancreatic amylase or pancreatic lipase greater than three times the normal value in the 24 h after ERCP. The incidence of PEP after ERCP, as its most common and lethal complication, has not decreased^[3]. In this study, 80 patients who underwent ERCP in our hospital from December 2023 to April 2024 were selected.

2. Data and methods

2.1. General information

Eighty cases of patients who underwent ERCP from December 2023 to April 2024 in our hospital were selected

and randomly divided into an observation group and a control group using the random number table method, with 40 cases in each group. 23 patients in the observation group were male, 17 were female, and their ages ranged from 34 to 76 years old, with an average age of 56.98 ± 4.97 years old. 25 patients in the control group were male, 15 were female, and their ages ranged from 36 to 78 years old, with a mean age of 57.08 ± 5.01 years. The general information was statistically analyzed and the difference was not statistically significant ($P > 0.05$).

2.2. Methods

The patients in the control group were given routine nursing interventions including guidance on medication and diet, instructions on surgical precautions, and other relevant interventions according to the doctor's instructions. The patients in the observation group were given nursing risk management interventions as follows: (1) In the preoperative stage, health education was provided to patients and their families, explaining the ERCP process, precautions, possible complications, and methods of prevention and care. Risk factors for postoperative pancreatitis and other complications were assessed and targeted nursing interventions were developed for patients with these risk factors. Health education was reinforced to ensure compliance with healthcare instructions, and effective communication was maintained to build a good relationship and alleviate patient tension and anxiety. Patients were advised to fast six hours before the operation, undergo an iodine allergy test, and follow medication instructions, with surgical instruments prepared, checked, and confirmed by the head nurse. (2) In the intraoperative stage, instrumentation nurses maintained good cooperation with the doctor to ensure all instruments were accurate, in place, and timely, thereby shortening the operation time, while the nurse closely observed the patient's status, including respiration, heart rate, and blood oxygen levels. (3) In the postoperative stage, patients were required to stay in bed for 24 hours and fast, with medication administered as needed. The patient's condition was closely monitored for signs of abdominal distension, pain, nausea, and vomiting, with any abnormalities reported to the attending physician for appropriate therapeutic measures. The purpose, use, and precautions of the postoperative indwelling tube were explained to the patient and their family, and the patient's diet was managed progressively, starting with fluids, then semi-fluids, and finally light, low-fat foods. Patients were also instructed on reasonable activities and exercises to perform post-operation.

2.3. Observation indicators

The incidence of pancreatitis and patient satisfaction of the two groups were compared.

2.4. Statistical analysis

SPSS 26.0 software was used for statistical analysis. The measurement data were compared using a *t*-test while the count data were compared using a chi-squared test. $P < 0.05$ indicated a statistically significant difference.

3. Results

3.1. Incidence of pancreatitis

The incidence of postoperative pancreatitis in the observation group was significantly lower than that in the control group ($P < 0.05$). Further details are shown in **Table 1**.

Table 1. Comparison of the incidence rate of pancreatitis between the two groups

Groups	Number of cases	Occurrence (cases)	Incidence
Observation group	40	2	5%
Control group	40	10	25%
χ^2			6.275
P			0.012

3.2. Patient satisfaction

The patient satisfaction of the observation group was significantly higher than that of the control group ($P < 0.05$). Further details are illustrated in **Table 2**.

Table 2. Comparison of nursing satisfaction between the two groups

Groups	Number of cases	Very satisfied	Satisfied	Dissatisfied	Satisfaction rate
Observation group	40	36 (90.00%)	2 (5.00%)	2 (5.00%)	38 (95.00%)
Control group	40	28 (70.00%)	1 (2.50%)	11 (27.50%)	29 (72.50%)
χ^2					7.440
P					0.006

4. Discussion

ERCP is the current gold standard for the diagnosis and treatment of various pancreaticobiliary diseases and is a minimally invasive treatment. Although this technique does not alter the anatomical structure and offers advantages such as minimal trauma and rapid recovery, it still carries the risk of complications such as intestinal perforation, gastrointestinal hemorrhage, sepsis, and pancreatitis, with pancreatitis having the highest morbidity rate among them^[4]. Current studies on the risk factors for post-ERCP pancreatitis have found that the incidence of postoperative pancreatitis is associated with a history of pancreatitis, sphincter of Oddi dysfunction, difficulty in intubation, and poor pancreatic visualization^[5]. This paper utilized clinical observation and found that the application of nursing risk management interventions could reduce the incidence of pancreatitis.

5. Conclusion

Nursing risk management after ERCP can reduce the incidence of postoperative pancreatitis and improve patient satisfaction.

Disclosure statement

The authors declare no conflict of interest.

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