



Study on the Application of Fast Track Surgery in Perioperative Nursing of Appendicitis in Children

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Abstract: The purpose of this paper is to study and analyze the effect of fast track surgery in perioperative nursing of appendicitis in children. The methods used in this paper are as follows. From January 2019 to April 2020, a total of 100 children with appendicitis undergoing laparoscopic appendectomy were treated in our hospital, and they were divided into two groups according to the two-color ball grouping method. Routine nursing (routine group) and fast track surgery (rehabilitation group) were carried out in perioperative nursing respectively, and the related nursing conditions of children and parents were collected and compared. Results were as follows. The incidence of postoperative complications (upper respiratory tract infection, incision infection, intestinal adhesion, urethral pain, nausea and vomiting) in the rehabilitation group was lower than that in the routine group ($P < 0.05$). There was no statistical significance in anxiety scores between the two groups of parents before intervention ($P > 0.05$). But after intervention, parents' anxiety scores in the rehabilitation group (pre-operation and post-operation) were lower than those in the routine group ($P < 0.05$). The conclusion is that the implementation of fast track surgery in perioperative nursing of children with appendicitis can effectively reduce the incidence of complications in children, improve the anxiety score of parents and promote the rehabilitation of children, which is worth popularizing.

Keywords: fast track surgery, routine nursing, appendicitis in children, perioperative nursing, postoperative complications, anxiety score

1. Introduction

Appendicitis in children is a common clinical abdominal disease in children, which is a common acute abdomen. It is often caused by inflammation of the appendix head of the child. After the onset of the disease, the child is often accompanied by fever, abdominal distension and abdominal pain^[1]. Because the treatment tolerance of children is relatively poor, there is a certain degree of difficulty in clinical treatment. In addition, children with appendicitis are young and they often vent by crying, making a noise and other ways after experiencing discomfort. They have a strong fear of surgical treatment, and the degree of cooperation between clinical treatment and nursing is not high^[2]. In order to ensure the expected results of laparoscopic surgery, it is very necessary to reduce the occurrence of postoperative complications, promote the rehabilitation of children, stabilize the children's mood^[3], and do good perioperative nursing intervention. In recent years, fast track surgery has been widely used in the nursing of various clinical diseases, and has achieved relatively ideal results. Based on this, this study mainly compares and analyzes the effects of different nursing methods in perioperative nursing of appendicitis in children, which are reported as follows.

2. Materials and methods

2.1 Clinical data

From January 2019 to April 2020, 100 children with appendicitis undergoing laparoscopic appendectomy were treated in our hospital. They were divided into two groups according to the two-color ball grouping method, with 50 cases in each group. In the routine group, there were 29 males and 21 females, aged from 1 to 11 years old, with an average age of (6.14 ± 2.56). In the rehabilitation group, there were 27 males and 23 females, aged from 1 to 11 years old, with an average age of (6.25 ± 2.50). The basic data of the two groups are compared ($P > 0.05$). But it's comparable.

2.2 Methods

During the perioperative period, 50 children in the routine group were given routine nursing care, such as auxiliary examination, guidance notes, management of indoor temperature and humidity, auxiliary surgery, postoperative guidance and so on.

Fifty children in the rehabilitation group received fast track surgery during the perioperative period. (1) Preoperative nursing. First of all, after clarifying the child's disease and the mode of operation, immediately assist the child to complete a number of preoperative examinations with the parents, and formulate the corresponding nursing plan according to the child's age and actual condition and parental educational level. Secondly, explain in detail the concept, implementation method and advantages of fast track surgery to the children and parents, and introduce the diseases, surgical methods, precautions, prognosis and possible complications and treatment methods to the child's parents. Let the child's parents be psychologically prepared in advance and inform the nurses in time to carry out effective treatment after the occurrence of complications so that they could gain the trust of the child's parents. And stabilize the parents' mood and alleviate their psychological burden. Finally, parents were clearly informed of the indirect impact of their bad mood, feelings towards the hospital and attitude towards medical staff on children, prompting parents to take the initiative to regulate their emotions. (2) Intraoperative nursing. After entering the operating room, assist doctors in time to help the child in posture placement, and implement corresponding nursing intervention. Do a good job in skin heat preservation, liquid heating, temperature control in the operating room, etc. during the operation and closely monitor the child's physical signs. In case of abnormality, assist the doctor to deal with it in time. (3) Postoperative nursing. After operation, parents were instructed to supervise the child to lie flat for 6 hours. Six hours after operation, instruct the child to get out of bed and perform appropriate activities on the bedside or in the ward. 24 hours after the operation, guide the children to carry out normal activities, and nurses and parents should do a good job of supervision. If there was obvious pain after operation, an analgesia pump should be given in time to control the pain at 0~3 points. Six hours after operation, the lips of the children were moistened with warm water in time, once every half an hour. Six hours after operation, the children were given oral sodium chloride solution (containing glucose) once every 40 minutes. If the child felt good about himself after eating for 12 hours, instruct the child to eat liquid food, and within 3 days after eating, let the child gradually return to the normal diet. At the same time, the nurse also needed to record the child's daily exhaust and daily bowel movements regularly after the operation, and implement the corresponding nursing intervention in time according to the child's actual situation.

2.3 Observation indicators

(1) The incidence of postoperative complications in the two groups of children (upper respiratory tract infection, incision infection, intestinal adhesion, urethral pain, nausea and vomiting);

(2) The anxiety scores of the two groups of children's parents before and after intervention (before and after operation) are evaluated by the Hamilton Anxiety Self-Scale. The higher the score is, the more serious the anxiety state of the children is.

2.4 Statistical methods

SPSS 22.0 statistical software is used to analyze the data. The anxiety score is analyzed by Student's t test, and the incidence of postoperative complications is analyzed by X² test. P < 0.05 is considered statistically significant.

3. Results

3.1 Comparison of the incidence of postoperative complications between the two groups

The incidence of postoperative complications (upper respiratory tract infection, incision infection, intestinal adhesion, urethral pain, nausea and vomiting) in the rehabilitation group is lower than that in the routine group (P < 0.05), as is shown in Table 1.

Table 1. Comparison of the incidence of postoperative complications between the two groups (n/%)

Groups	The number of cases	Upper respiratory tract infection	Incision infection	Intestinal adhesion	Urethral pain	Nausea and vomiting	Satisfaction
Rehabilitation group	50	1	0	0	1	1	3 (6.0%)
Routine group	50	2	1	1	3	4	11 (22.0%)
X ²	-	-	-	-	-	-	11.766
P	-	-	-	-	-	-	0.01

3.2 Comparison of anxiety scores of the two groups of parents before and after intervention

The comparison of the anxiety scores of the two groups of parents before intervention is not statistically significant (P > 0.05). The anxiety scores of the rehabilitation group after parental intervention (before and after operation) are lower than those of the routine group (P < 0.05). See Table 2.

Table 2. Comparison of anxiety scores between the two groups before and after intervention (points)

Groups	The number of cases	Before intervention	After intervention	
			Before operation	After operation
Rehabilitation group	50	41.76±6.43	35.28±6.36	30.79±5.63
Routine group	50	41.88±6.45	39.97±6.51	35.22±5.98
t	-	0.287	6.275	3.115
P	-	0.55	0.01	0.01

4. Discussion

Fast track surgery is a high-quality nursing model applied in the perioperative period, and it is also a superior nursing model confirmed in many fields. Some clinical studies^[4] have clearly pointed out that the accurate implementation of fast track surgery during the perioperative period can effectively reduce the patient's surgical and postoperative stress, effectively reduce the patient's postoperative complications, and accelerate the patient's postoperative rehabilitation. It is clinically believed that fast track surgery is a result of a combination of multiple effective nursing measures. It is used in the perioperative period and can be implemented on the basis of evidence-based medicine, which can effectively improve the prognosis of patients and shorten the hospitalization time of patients. It can also prompt patients to recover from various aspects as soon as possible, thereby reducing the hospitalization cost of patients and enabling patients to resume normal life as soon as possible^[5]. With the deepening of clinical medical reform, perioperative nursing is also constantly changing. The frequency of application of fast track surgery in the clinic is increasing, and this type of nursing is being paid more and more attention by the clinic^[6].

Appendicitis in children is a common acute abdomen, but it can be effectively treated by laparoscopic surgery. However, the age of children with appendicitis is not uniform. Older children can understand the explanations of medical staff and can cooperate with nursing and medical jobs to a certain extent. However, younger children are difficult to communicate smoothly through language, and the children themselves are very afraid of the hospital and medical staff. They can only express their dissatisfaction through crying^[7]. Furthermore, the children are younger, and parents have serious negative emotions and guilt emotions after the onset of the disease, which indirectly leads to further aggravation of the children's negative emotions^[8]. Therefore, it is very necessary to implement effective nursing during the perioperative period of children with appendicitis. From the results of this study, it can be seen that after the implementation of fast track surgery, the incidence of complications in the rehabilitation group is 6.0%, which is less than 22.0% in the routine group. After the nursing intervention, the parents of the children are effectively relieved of anxiety. The anxiety of the parents decreases continuously after the operation, which has little effect on the children as a whole.

It can be seen from the above that the application of fast track surgery in perioperative nursing of children with appendicitis can reduce the incidence of postoperative complications and improve the negative emotions of parents.

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