

# *Clinical Nursing Care of Patients with Intestinal Obstruction after Laparoscopic Surgery for Hysteromyoma*

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**Keywords:** Hysteromyoma; Laparoscopic surgery; Intestinal obstruction; Nursing experience

**Abstract:** To explore the nursing experience of patients with intestinal obstruction after laparoscopic surgery for uterine fibroids. 30 patients with hysteromyoma and intestinal obstruction after laparoscopic surgery were selected, and effective nursing intervention was taken after symptomatic treatment. 30 patients were cured after conservative treatment. The cure time was 7-14 days, with an average of 10.5 days. Effective nursing intervention for patients with intestinal obstruction after laparoscopic surgery for hysteromyoma can promote the recovery of intestinal function, which is conducive to the later rehabilitation of patients, and is worthy of clinical promotion.

Laparoscopic surgery is a minimally invasive surgery developed in recent years, which has been widely used in clinical practice and is trusted by doctors and patients. At present, it is clinically known that gynecological laparoscopic surgery has small wound, little trauma, less pain, fast postoperative recovery, and faster recovery time than conventional open surgery<sup>[1]</sup>. However, in the actual operation, due to the related effects of anesthetic drugs, surgical trauma, postoperative CO<sub>2</sub> residue in the abdominal cavity and so on, few patients have poor postoperative gastrointestinal function recovery. The clinical symptoms include abdominal distention, nausea and vomiting, and the cessation of exhaust and defecation. The degree of physical comfort is affected, and the slow postoperative recovery will increase the risk of late complications<sup>[2]</sup>. Therefore, effective nursing intervention for the above patients can further promote the recovery of gastrointestinal function on the basis of reducing the risk of adverse reactions, which is conducive to the later recovery of patients. This article explores the nursing experience of patients with intestinal obstruction after laparoscopic surgery for hysteromyoma as follows.

## 1. Data and methods

### 1.1 General information

From January 2019 to December 2012, 30 patients with gynecological hysteromyoma who underwent laparoscopic surgery combined with intestinal obstruction in our hospital were selected.

Inclusive criteria: ① All patients were diagnosed as intestinal obstruction by specialist consultation; ② High compliance, able to cooperate with medical staff in the treatment of intestinal obstruction; ③ After the consent of patients and their families, they participated in this trial. Exclusion criteria: ① those with surgical contraindications and coagulation dysfunction; ② Patients with undiagnosed intestinal obstruction; ③ Patients who do not cooperate with the treatment. The average age was  $(50.2 \pm 4.3)$  years, ranging from 30 to 70 years old.

## 1.2 Methods

### 1.2.1 Symptoms and signs of intestinal obstruction

**Symptoms** There are four main symptoms of acute intestinal obstruction: (1) Abdominal pain: paroxysmal colic, jejunum or upper ileum obstruction, once every 3-5 minutes, ileum terminal or large intestine obstruction, once every 6-9 minutes, pain relief in the interval between attacks, accompanied by hyperactivity of bowel sounds during colic, bowel sounds are high pitched, sometimes the sound of gas passing through water can be heard, and paralytic intestinal obstruction Yang can be without abdominal pain. The colic caused by high intestinal paralysis may not be serious. Middle or low intestinal obstruction presents typical severe colic, which is located around the umbilical cord or is not located accurately. Each colic lasts for several seconds to several minutes. If paroxysmal colic turns into persistent abdominal pain, it should be considered that it has developed into strangulated intestinal obstruction. (2) Vomiting: after the obstruction, the reverse peristalsis of the intestinal tube causes the patient to vomit. The vomit begins with stomach content and then intestinal content. The colic of upper small intestine obstruction is not severe, but vomiting is frequent. The middle or distal small intestine obstruction causes vomiting late. The vomit of lower small intestine obstruction sometimes appears as "stool like", which is caused by retention of intestinal content, excessive growth of bacteria, and decomposition of intestinal content. (3) Abdominal distention: It mostly occurs in the late stage, and the high intestinal obstruction is not as obvious as the low intestinal obstruction. Because of the existence of ileocecal valve, colon obstruction rarely occurs reflux, and the obstruction is often closed loop, so the abdominal distention is obvious. When strangulated intestinal obstruction occurs, the abdomen expands asymmetrically, and the enlarged intestinal loops can be felt. (4) Exhaust and defecation stop: patients with intestinal obstruction generally stop anal defecation and exhaust, but mesenteric vascular embolism and intussusception can discharge loose stool or bloody mucus, and patients with colon tumor, diverticulum or gallstone obstruction also often have black stool.

**Signs:** (1) Heart rate: In simple intestinal obstruction, the heart rate is normal when the water loss is not heavy, and the heart rate is accelerated, which is the manifestation of low blood volume and severe water loss. In strangulating intestinal obstruction, the heart rate is accelerated due to the absorption of toxins.

(2) Body temperature: normal or slightly elevated. Elevated body temperature is a sign of intestinal strangulation or necrosis.

(3) Abdominal signs: attention should be paid to whether there are surgical scars. Obese patients should pay particular attention to inguinal hernia and femoral hernia, because too much subcutaneous fat is easy to ignore. The swollen intestinal canal has tenderness, and colic is accompanied by intestinal type or peristaltic waves. If local tenderness is accompanied by abdominal muscle tension and rebound pain, it is a sign of strangulating intestinal obstruction. When auscultating, attention should be paid to the change of the tone of bowel sounds, and colic is accompanied by the sound of air and water. The bowel is highly dilated, and metallic sounds can be heard.

(4) Digital rectal examination: Relevant personnel should pay attention to whether there is a tumor in the rectum and whether there is blood on the fingertips. If there is blood, intestinal

mucosal lesions, intussusception, thrombosis and other lesions should be considered.

### 1.2.2 Treatment method

All patients were treated with non-surgical intervention, including fasting and drinking, continuous gastrointestinal decompression, semi recumbent position, patients who were allowed to get out of bed, maintain water electrolyte, acid-base balance, take intravenous nutrition support, and use antibiotics reasonably. The symptoms of the patients were mild and severe abdominal distention within 1-5 days after the operation, accompanied by mild abdominal pain. Most of the patients were nausea and vomiting, and the anal exhaust and defecation were stopped. The symptoms of the patients were obvious abdominal distention, weak bowel sounds, abdominal muscle tension, unclear rebound pain, and the presence of electrical disturbance. When the doctor took an abdominal tablet for the patient, he found that there was a large amount of gas in the abdominal small intestine, the liquid level was obvious when the small intestine was slightly dilated, and there was a small amount of gas in the colon. The patient was diagnosed with paralytic incomplete intestinal obstruction.

Once the diagnosis of gastrointestinal decompression patients is clear, gastrointestinal decompression should be carried out immediately to reduce abdominal distension. It can also prevent aspiration in elderly patients. The stomach tube is kept in the stomach, which can suck out the liquid and gas flowing back from the intestinal tube to the stomach, thus reducing the degree of intestinal expansion, which is conducive to surgical exploration. For simple adhesive intestinal obstruction, only gastrointestinal decompression and intravenous infusion can sometimes relieve the obstruction and avoid reoperation. After 12 hours of gastrointestinal decompression, the X-ray examination was repeated. If the inflation of the small intestine was reduced and the colon was inflated, it proved that the intestinal obstruction was relieved.

Water and electrolyte supplement shall be carried out according to the location and duration of intestinal obstruction and the results of laboratory examination. As the fluid lost from vomiting and gastrointestinal decompression is similar to extracellular fluid, the supplemented fluid is mainly isotonic fluid. For patients with severe dehydration, it is particularly important to supplement blood volume before operation, otherwise, blood pressure may drop under anesthesia. For strangulated intestinal obstruction, in addition to isotonic fluid supplement, plasma and whole blood supplement are particularly important, especially when blood pressure and pulse rate have changed.

The use of antibiotics is not necessary for simple intestinal obstruction, but for strangulated intestinal obstruction, which can reduce bacterial proliferation, especially when the intestinal necrosis causes peritonitis.

Non operative treatment: in addition to the above treatments. The following measures can also be added: (1) traditional Chinese medicine (2) oil can be taken 200~300ml of paraffin oil, raw soybean oil or rapeseed oil in batches or injected through gastrointestinal decompression tube. It is applicable to those with severe illness and weak constitution.(3) If there is no surgical condition for paralytic intestinal obstruction, neostigmine injection and abdominal hot compress can be used (4) Acupuncture at Zusanli, Zhongwan, Tianshu, Neiguan, Hegu, Neiting and other points can be used as auxiliary treatment.

Surgical treatment: some patients can be relieved after the above treatment. If abdominal pain worsens, vomiting continues, white blood cells increase, and body temperature also increases, surgery must be performed. The observation time should not exceed 48 hours to avoid intestinal strangulation and necrosis.

### 1.2.3 Nursing measures

Psychological nursing: very few patients with hystero myoma were complicated with intestinal obstruction after laparoscopic surgery, but because they were in the recovery period after surgery, some patients would be accompanied by sudden nausea, abdominal distention, abdominal pain, anal defecation and exhaust stop, and patients often worried about whether their symptoms were caused

by surgery, so there would be tension, anxiety, fear and other negative emotions. Therefore, the nursing staff should explain the degree of cooperation according to the symptoms and manifestations of the patients, ease the patients' anxiety, introduce the causes of complications, clinical manifestations and treatment and nursing measures for the patients, eliminate the patients' bad emotions in time, let the patients actively cooperate with the treatment, and establish confidence in overcoming the disease.

Fasting and drinking, and continuous gastrointestinal decompression: patients with intestinal obstruction after confirmed laparoscopic surgery should immediately fast and drink, and continue gastrointestinal decompression, in order to ease the burden of the digestive tract at the obstruction site, effectively reduce the degree of intestinal expansion, prevent intestinal edema, and facilitate the recovery of intestinal contractility. Corresponding measures should be taken to give patients fasting, drinking and continuous gastrointestinal decompression. Before inserting stomach tube, nurses can explain the significance and necessity of inserting stomach tube to patients, so that patients can actively cooperate with inserting stomach tube for continuous gastrointestinal decompression treatment, and pay attention to the position of stomach tube in the stomach, neither shallow nor too deep.

Body position and condition observation: 6 hours after operation, the patient can be assisted to take the semi recumbent position, and the semi recumbent position is conducive to postoperative drainage. During conservative treatment, closely observe the changes of vital signs. If the patient's abdominal symptoms worsen, bowel sounds weaken or disappear, and there is a sense of flexibility in palpation, the fixed mass and intestinal type cannot be touched in general, and peristaltic waves are rare after surgery. Therefore, according to the patient's symptoms, the doctor closely observes the changes and severity of the patient's condition, and promptly notifies the superior doctor to prepare for surgery.

Parenteral nutrition support for patients can provide total parenteral nutrition, maintain internal environment stability, correct malnutrition, further relieve intestinal wall edema, and help gastrointestinal function recovery. During the nursing process, the patient's blood sugar and urine sugar changes were closely monitored to avoid hyperglycemia. The whole nutrient mixture was prepared and could be evenly injected into the body within 24 hours at room temperature when the physical and chemical properties did not change.

Abdominal massage: Abdominal massage can actively mobilize patients' subjective initiative and self-care, which is conducive to the early recovery of patients. On the other hand, abdominal massage intervention can increase local blood circulation and reduce the occurrence of intestinal adhesion. After the operation, the patient can be assisted to take a supine position and bend the knee. Massage from inside to outside in a clockwise direction for 2-3 minutes, and from counter clockwise direction for 2-3 minutes. Massage once in the morning and once in the evening for about 20 minutes each time. For the elderly and infirm, special patients, and patients after major surgery, the responsible nurse shall help them massage the abdomen. The massage intensity shall be acceptable to the patient, and the manipulation shall be light to heavy, and remember to be rude.

Anus tube exhaust and warm saline enema care: giving patients an anus tube exhaust can relieve abdominal distension, while using warm saline enema and retaining for a period of time, so that the rectum can be stimulated to a certain extent, promote intestinal peristalsis, closely monitor the nature, scope, location and other conditions of patients' abdominal pain, and timely report to the doctor for treatment in case of abnormal conditions.

## 2. Results

Treatment reference standard: cure: after clinical treatment and nursing, the patient's abdominal distention, vomiting and other symptoms disappeared, the anal exhaust and defecation recovered, the bowel sounds changed from rare to active, the abdominal wall was soft, the drainage of nasogastric tube was significantly reduced within 24 hours, and there was no bile, and the

obstruction symptoms no longer appeared after the resumption of eating. After conservative treatment, all the 30 patients in this group were cured. The total cure time was 7-14 days, with an average of 10.5 days.

### 3. Discussion

With the continuous updating of modern laparoscopic technology and surgical technology, laparoscopy is widely used in the field of gynecology to treat gynecological diseases such as hysteromyoma, adnexal mass, ectopic pregnancy, infertility, malignant tumor, etc. Minimally invasive surgery has the advantages of small intestinal stimulation and quick recovery after operation. However, gastrointestinal peristalsis in patients after surgery is often disappeared<sup>[3]</sup> due to intraoperative stimulation, intraoperative bleeding, pneumoperitoneum and other factors. Therefore, postoperative gastrointestinal recovery is a measure to prevent postoperative intestinal obstruction. The recovery of gastrointestinal function can speed up patients' eating, prevent water, electrolyte, acid-base balance disorders in the body, and reduce complications such as intestinal adhesion and intestinal obstruction. Postoperative intervention for the above patients plays an important role in clinical rehabilitation and prognosis<sup>[4]</sup>. Effective postoperative nursing interventions can alleviate gastrointestinal flatulence, promote the recovery of gastrointestinal function, and improve the prognosis of patients. In this study, 30 patients with intestinal obstruction after laparoscopic surgery for uterine leiomyoma were treated with effective nursing interventions. The prognosis of the patients was good and the symptoms disappeared. Therefore, patients can be given intestinal stimulation after surgery, and appropriate non drug intervention can prevent postoperative abdominal distension and promote the recovery of gastrointestinal function. Doctors should do a good job in psychological nursing intervention, relieve patients' bad emotions, help patients establish confidence in overcoming the disease, and provide targeted gastrointestinal examination and treatment, which is conducive to relieving gastrointestinal flatulence and promoting intestinal peristalsis<sup>[5]</sup>. Assisting patients to take semi-seated position after surgery is conducive to postoperative drainage, closely monitoring the changes of the condition, preventing further deterioration of the condition, implementing parenteral nutrition intervention, alleviating intestinal wall edema, improving gastrointestinal function, and restoring intestinal peristalsis, which is conducive to the recovery of postoperative intestinal obstruction<sup>[6]</sup>. After surgery, nurses should take comprehensive consideration of various factors, such as individual differences of patients, disease characteristics and manifestations, and select appropriate multi combination methods focusing on prevention to reduce postoperative abdominal distension and promote the early recovery of patients. In summary, nursing intervention for patients with gynecological uterine fibroids complicated with intestinal obstruction after laparoscopic surgery can promote the early recovery of gastrointestinal function, which is of great significance and worth promoting.

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