# Application of Rapid Rehabilitation Surgical Nursing in Gastrointestinal Surgery

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**Abstract:** Objective: To explore the clinical effect of rapid rehabilitation surgery in patients undergoing gastrointestinal surgery. METHODS: Thirty-nine patients with enteric gastro-intestinal tumors who were treated within the interval between December 2017 and June 2018 were selected. The 89 patients were randomly divided into two groups. The first group was the control group, and the second group was the control group. The group was a rapid rehabilitation surgery group. The control group was nursed on the basis of conventional nursing methods, and the fast rehabilitation surgical group used rapid rehabilitation surgical care. Then compare the surgical evaluation index and postoperative recovery evaluation index between the two groups of patients. RESULTS: There was no significant difference between the control group and the fast-recovery surgery group in terms of operation time, intraoperative blood loss, and incidence of postoperative complications ($p>0.05$). Among the indicators of postoperative recovery, relative to the control group, the fast rehabilitative surgery group was significantly lower in terms of the first anus exhaust time, dietary recovery time, postoperative hospital stay time and other indicators ($p<0.05$). Conclusion: In the perioperative nursing process, the concept of rapid rehabilitation surgery is used to promote the early rehabilitation of patients undergoing gastrointestinal surgery, which can significantly reduce the hospitalization time of patients undergoing gastrointestinal surgery.

The research of rapid rehabilitation surgery originated in the early 1990s. Rapid rehabilitation surgery is a relatively mature theory and method in clinical practice. For the body's stress response, rapid rehabilitation surgery can play a significant role in reducing and blocking. In particular, for patients with negative effects, rapid rehabilitation surgery has a significant reduction effect, enabling patients to recover from surgical trauma as quickly as possible, and the recovery time is greatly reduced. From December 2017 to June 2018, I tried to use the concept of rapid recovery during the perioperative care of patients undergoing gastrointestinal surgery. The results of the experiment were good. The report is as follows.

## 1. Materials and Methods

### 1.1 Related Information

From December 2017 to June 2018, we selected 89 patients with gastrointestinal tumors who were admitted to our department. The 89 surgical patients were pathologically confirmed as malignant before surgery. The 89 surgical patients were randomly divided into two groups, control group and rapid rehabilitation surgery group. There was no statistically significant difference in gender, age, comorbidity, and tumor stage between the control group and the rapid rehabilitation surgery group, as shown in Table 1.

**Table 1.** Comparison of clinical data between two groups [n(%)]

| Item | FTS group (n = 46) | Control group (n = 43) | P value |
|---|---|---|---|
| Gender | | | 0.958 |
| Male | 27(58.7) | 25(58.1) | |
| Female | 19(41.3) | 18(41.9) | |
| Age(year, x ± s) | 52.76 ± 12.22 | 57.26 ± 11.78 | 0.102 |
| Complications | | | 0.889 |
| None | 8(17.4) | 7(16.3) | |
| Yes | 38(82.6) | 36(83.7) | |
| Surgical method | | | 0.909 |
| Distal gastrectomy | 10(21.7) | 9(20.9) | |
| Total gastrectomy | 3(6.5) | 2(4.7) | |
| Proximal gastrectomy | 2(4.3) | 1(2.3) | |
| Right colon resection | 6(13.0) | 6(14.0) | |
| Left colon resection | 2(4.3) | 1(2.3) | |
| Transverse colon resection | 0 | 1(2.3) | |
| Sigmoid colon resection | 4(8.7) | 7(16.3) | |
| Low rectal anterior resection | 15(32.6) | 11(25.6) | |
| Abdominal perineal resection | 4(8.7) | 5(11.6) | |
| Tumor TNM stage | | | |
| Ⅰ | 6(13.0) | 4(9.3) | |
| Ⅱ | 18(39.1) | 18(41.9) | |
| Ⅲ | 16(34.8) | 14(32.6) | |
| Ⅳ | 6(13.0) | 7(16.2) | |

### 1.2 Methods

The control group performed general preoperative education, routine bowel preparations, no food intake for 12 hours before surgery, water inflow for four hours, and nasogastric tube placement after surgery. After the patient's gastrointestinal function was restored, the nasogastric tube was removed, the anus exhausted after defecation, and advanced a small amount of liquid food, and then gradually transitioned to ordinary food. Perform activities on the basis of the patient's wishes.

The rapid rehabilitation surgery group was actively counseling before surgery and did not perform routine bowel preparation. In order to play a capacity thank you guide? The effect was that the patient was given oral pharmaclotine prior to surgery and guided patients undergoing colorectal surgery three to three hours prior to surgery by oral administration of 200 to 300 ml of 5% or 10% glucose, or via the peripheral vein. Two hours before surgery, given 10% or 5% glucose, patients with gastroduodenal surgery need to indwell nasogastric tube, the remaining patients do not need to be placed. Nasogastric tubes were removed as soon as possible within one hour to two hours after surgery in patients undergoing gastroduodenal surgery. Patients need to pay attention to warming during surgery. On the first day after the surgery, the patient was able to enter a small amount of water, and on the second day after the surgery, the patient was able to consume fluids. Then gradually transition to normal eating. On the first day after the operation, the patient was assisted in the appropriate amount of activity on the bed, and the second day after the end of the surgery, the patient got out of bed.

### 1.3. Observing the indicators

There are two surgically-related indicators: the first is the time of surgery, and the second indicator is the amount of blood loss during surgery.

There are four indicators related to post-operative recovery: the first indicator is the first time for exhalation, the second indicator is the time for the patient to leave the bed, the third indicator is the

time for the patient to resume eating, and the fourth indicator is the patient stay after surgery.

### 1.4. Statistical analysis

All data were selected Spss3.0 statistical software to process the data, indicated by x ± s, measurement data selected t test, by fractional ratio to represent the count data, select the x2 test, p, <0.05 means that the difference was statistically significant.

## 2. Results

There was no significant difference (p>0.05) between the control group and the fast rehabilitation surgery group in terms of operation time, blood loss during surgery, and the incidence of complications after surgery (p>0.05); among recovery-related indicators after surgery, relative to the control In the group of patients, the time of first bedtime, patient's anus exhaust time, total flow food recovery time, and hospitalization time after surgery were significantly shortened (p<0.05). There was statistical significance, as shown in Table 2 show.

**Table 2.** Comparison of related indicators of surgery and postoperative recovery in the two groups

| Variables | FTS group (n = 46) | Control group (n = 43) | P value |
|---|---|---|---|
| Operating time(min) | 174.83 ± 46.67 | 178.15 ± 73.70 | 0.818 |
| Blood loss (ml) | 120.22 ± 72.13 | 111.47 ± 80.23 | 0.611 |
| Bed time (h) | 81.50 ± 37.48 | 111.24 ± 48.80 | 0.004 |
| Anus recovery exhaust time (h) | 70.02 ± 22.16 | 88.59 ± 46.17 | 0.036 |
| Recovery of total liquid food time (h) | 48.61 ± 41.64 | 121.15 ± 46.35 | 0.001 |
| Postoperative hospital stay (d) | 9.43 ± 2.75 | 12.06 ± 5.48 | 0.014 |
| Total complications (n) | 0 | 1(2.3%) | 0.298 |
| Incision infection | 0 | 1(2.3%) | |

## 3 Discussion

Many patients who are in need of surgery are worried that anesthesia and complications can cause a series of bad injuries to the body. Under this psychological influence, there are fears, tensions, anxiety and other emotions. This will have a very negative effect on the smooth operation of the surgery, and even have a negative impact on it. The therapeutic effects of patients have different degrees of negative effects. In the concept of rapid rehabilitation surgery, active psychological counseling before surgery has now become a key component. On the basis of different psychological needs and conditions of the patients, different methods of publicity and explanation are adopted so that the patients have a thorough understanding of the relevant knowledge of the diseases and the treatment modalities, so that they can cooperate with the medical staff in their diagnosis and treatment work to a great extent. Its tension and anxiety play a mitigating role.

In the postoperative period of anastomotic leakage and infection prevention, bowel preparation is considered to be an effective method, such as entering a semi-flow diet or a scum-free full-flow diet for three hours before surgery. The concept of rapid rehabilitation surgery believes that prolonged eating can easily lead to a series of adverse reactions for patients, for example, lack of calories, protein intake and so on. Mechanical bowel preparations can cause electrolyte disturbances in patients, which can increase the stress response during surgery and the incidence of postoperative infections. During the study period, patients in the fast rehabilitation surgery group did not undergo routine bowel preparation before surgery. No anastomotic leakage or infection occurred after the surgery.

In order to prevent the occurrence of asphyxia or aspiration pneumonia during surgery, the patient is required to ban the diet within 12 hours before the surgery and drink water within four

hours. However, patients who are forbidden to eat for a long time and are prohibited from entering the water may experience thirst, hunger, decreased blood volume and blood glucose, etc., and have adverse effects on the smooth operation, and are also very unfavorable for normal recovery after surgery. A large number of research results at home and abroad show that if the stomach function normal food into the solid food for six hours, the liquid can empty after two hours, and the time for fasting before and after surgery can significantly shorten the role, effectively avoiding the surgical process The probability of occurrence of adverse symptoms such as vomiting. Three hours before the operation, the patient took orally 200ml to 300ml of glucose solution, or two hours before surgery, can greatly relieve the symptoms of thirst, hunger and other adverse symptoms during the operation, which is very helpful to the catabolism of the patient.

Patients with indwelling nasogastric tubes usually experience adverse reactions such as nausea and increased sputum, which can have a very negative impact on the patient's early activities and increase the probability of pneumonia. In this study, the patients in the rapid rehabilitation nursing surgery group were able to infuse a small amount of water on the first day after surgery, and were able to eat fluids on the second day after the end of surgery, and gradually transitioned to ordinary foods. As shown in Table 2, no significant increase occurred and the patient's recovery time was accelerated.

Pain after surgery can make patients have different levels of fear. On the one hand, this fear can lead to environmental disorders in the patient's body, and on the other hand it also affects the amount of early active food intake. Therefore, full pain relief is a key part of the rapid rehabilitation care process. It can be used to relieve some of the unpleasant stimuli on the body during the surgical procedure through the patient-controlled analgesia pump. On the day of surgery, the patient may perform appropriate activities in bed if the condition allows. On the next day after the completion of the surgery, the patient began to get out of bed. The patient's activities were dominated by autonomous activities, which promoted the patient's anabolism, restored gastrointestinal function, and reduced surgical complications.

## Conclusion

All in all, the advantages of rapid rehabilitation surgical care have gradually been recognized by people. The perioperative care in the concept of rapid rehabilitation care is a very important link. Based on the physiological state and psychological state of the patient during the operation period, the concept of rapid rehabilitation is fully applied in various nursing measures, minimizing unnecessary stress and trauma during the operation, and promoting the early stage of the patient, Rehabilitation.

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