

Adjuvant Treatment of Recurrent Gastrointestinal Cancer Based on the Concept of Rapid Rehabilitation

Jin HE, Junming Hou*

Shaanxi University of Chinese Medicine, Xianyang, Shaanxi 712000, China

529323509@qq.com

*corresponding author

Abstract: Rapid Rehabilitation Surgery (FTS) refers to the method of relieving and reducing the occurrence of surgical stress and complications and accelerating the postoperative rehabilitation of patients through close cooperation between medical care and nursing. Rapid rehabilitation surgery includes preoperative education for patients, reasonable preoperative preparation, good anesthesia and treatment during operation, fine surgical techniques, effective postoperative analgesia, and minimizing various stress reaction factors during perioperative period. Most patients lack understanding of the concept of rapid rehabilitation surgery. The concept of rapid rehabilitation surgery encourages early getting out of bed, early extubation, early recovery of enteral nutrition support, and restriction of fluid replacement. It is different from the public's understanding of postoperative surgery, which may lead to psychological stress in patients. It is of great clinical significance to optimize the nursing measures of the concept of rapid rehabilitation surgery and formulate a nursing plan that accords with the actual situation of patients.

Keywords: Rapid rehabilitation; gastrointestinal cancer; stress response

1. Introduction

Surgery is a high-risk diagnosis and treatment, with strong traumatic stimulation. According to literature reports, the stress indexes of patients during and after surgery were significantly improved, the adverse effects of surgical stress stimulation on patients were increased, and the incidence of complications was increased [1]. Gastric cancer and colorectal cancer are the most common malignant tumors in gastrointestinal tract. The therapeutic effects of both are not satisfactory. There are quite a number of patients with gastrointestinal cancer after surgery and did not get good results. The recurrence of gastrointestinal tumor is a common clinical problem that needs to be solved urgently [2]. Because gastrointestinal tumors are different in pathogenesis, disease progression, outcome and prognosis, the treatment effect is also quite different [3]. No matter "main treatment" or "auxiliary treatment", the fundamental principle of tumor treatment is comprehensive treatment, and gastrointestinal tumor is no exception [4]. Gastrointestinal tumor is a kind of tumor with medium and low sensitivity to radiotherapy and chemotherapy. Up to now, patients with gastrointestinal tumor who can undergo radical or palliative surgery should still be given the first choice of surgical treatment [5]. Gastrointestinal disease patients are prone to dyspepsia, abdominal distension and other gastrointestinal symptoms, with a long course of disease, malnutrition, gastrointestinal dysfunction, surgical stimulation, anesthesia and other reasons further damage the gastrointestinal function, affecting the recovery of patients [6]. Fast track surgery (FTS) refers to the method of applying a series of proven effective measures to alleviate and reduce the occurrence of surgical stress and complications and accelerate the postoperative rehabilitation of patients through close cooperation between doctors and nurses during the perioperative period [7].

The concept of fast track surgery is a concept for the purpose of patients' rehabilitation, but there is no standardized fast track surgery strategy at present, and many patients lack sufficient understanding of the concept of fast track surgery [8]. Fast track surgery includes preoperative education for patients, reasonable preoperative preparation, good intraoperative anesthesia and treatment, fine surgical techniques, effective postoperative pain relief, and minimizing various stress response factors during perioperative period [9]. The concept of fast track surgery is a new nursing mode, which aims at the rehabilitation of patients, but there is no unified standard [10]. Most of the patients lack the

understanding of the concept of fast track surgery. The concept of fast track surgery encourages early getting out of bed, early extubation, early recovery of enteral nutrition support, and limits the amount of rehydration, which is different from the public's cognition of postoperative, which may lead to psychological stress. It is of great clinical significance to optimize the concept and nursing measures of fast track surgery and formulate the nursing plan in line with the actual situation of patients.

2. Adjuvant therapy for recurrent gastrointestinal tumors

FTS is a collaborative result of a series of effective measures, which can significantly improve the recovery speed of patients and shorten the hospitalization time. Its core is to reduce or reduce the physiological and psychological trauma stress of patients, and promote the rapid recovery of patients. Neoadjuvant therapy can inhibit the proliferation of tumor, inhibit the growth of tumor and reduce the local recurrence rate. Neoadjuvant therapy can reduce the activity of tumor cells, which is not easy to spread during operation, and reduce the probability that residual tumor is easy to metastasize after operation due to enhanced hemagglutination mechanism and immunosuppression. The management content of fast track concept in gastrointestinal surgery includes preoperative mental and physical preparation, reducing the stress response of treatment measures to the body and blocking the transmission of stress signals. The blood supply of tumor target cells is good, and the sensitivity of preoperative chemoradiotherapy is high. However, the change of blood supply of primary lesions and scar formation of surrounding tissues after surgery may make the postoperative chemoradiotherapy unable to reach effective sensitivity and effective blood concentration at the residual lesions. Therefore, as the first attack on tumor cells, neoadjuvant therapy can play a multiplier effect in the comprehensive treatment of tumor. At present, some scholars have controversial opinions on some of the above ideas of fast track surgery. They think that the above measures are not applicable to all patients, and the patients should be comprehensively evaluated before surgery.

Most cancer patients have negative emotions such as fear, anxiety and depression, and the worry about surgery further aggravates the above negative psychology of patients. This requires nurses to strengthen preoperative health education, fully communicate with patients, and inform them of the basic knowledge of perioperative rapid recovery, possible conditions and countermeasures. Exercise rehabilitation has certain risks. Patients with poor cardiopulmonary function may lead to abnormal hemodynamics. Some patients are too weak, the effect of rehabilitation training is poor, and early enteral nutrition intolerance. Therefore, quality management should be strengthened, and specific analysis should be made according to the actual situation of patients to meet the actual needs of patients. Hypothermia leads to stress during rewarming. Fast track surgery program focuses on keeping patients warm during and after operation. Postoperative pain can cause a strong stress response. The traditional method of postoperative analgesia is the use of opioids such as morphine, which can inhibit the patient's breathing and cough reflex and prolong the time of postoperative enteroparalysis [11]. Preoperative radiotherapy can thicken the presacral fascia fibrosis, reduce the risk of presacral vein bleeding, increase the resection rate and curative effect. Because of the small intestine falling into the pelvic cavity after operation, preoperative radiotherapy can reduce the radiation injury of small intestine, radiation enteritis, anastomotic stenosis and other postoperative complications. Fast track surgery can reduce the incidence of complications, effectively reflect the fast track surgery nursing, nutritional support, rehabilitation nursing, intestinal management, so that patients benefit from it, relieve patients' bad mood, reduce patients' fear.

3. Application of rapid rehabilitation concept nursing in patients with gastrointestinal cancer

3.1. Preoperative nursing

Gastrointestinal surgery is very common in hospital clinical cases. With the increasing work pressure of people, the number of patients with this disease is also increasing, and the incidence rate is also extremely high. Although surgery can solve this disease, it does great harm to the body. If we don't pay attention to rehabilitation after operation, there will be more adverse symptoms in the later period. For gastrointestinal surgery, in order to meet the needs of intestinal preparation, the preoperative fasting time will be longer. However, fasting for a long time before operation can aggravate insulin resistance and increase blood sugar after operation, and insulin resistance is considered as an independent predictor of prolonging postoperative hospital stay. Therefore, some surgeons began to allow patients to eat a certain amount of fluid before operation, which can not only relieve postoperative insulin resistance, but also relieve anxiety and hunger and thirst of patients caused by preoperative fasting, without increasing the risk of aspiration during anesthesia. Psychological nursing

before operation, anesthesia and operation as strong stressors before operation can increase anxiety and depression, lead to endocrine and nerve dysfunction and abnormal behavior, and affect the rehabilitation of patients. It is of great significance to understand patients' inner feelings before operation and implement targeted nursing intervention for them to promote postoperative rehabilitation. Elderly patients with gastrointestinal tumors often have a variety of basic diseases, such as hypertension, diabetes, cardiac insufficiency and ischemic cardiomyopathy. Patients' cardiopulmonary function should be fully evaluated before operation, and the functional status of each organ should be adjusted by enteral nutrition, parenteral nutrition, blood transfusion and other measures to improve patients' immune level and surgical tolerance.

3.2. Intraoperative nursing

Preheating a large amount of cold liquid during operation, controlling the ward temperature, regulating the number of people in the operating room, and using quilts to increase the thermal insulation of patients' limbs and heads can reduce the stress response caused by low temperature, reduce the amount of bleeding during operation, and reduce the incidence of metabolic decomposition and complications. According to the concept of rapid rehabilitation surgery, gastric tube only plays a limited role in making stomach empty and preventing aspiration, but it is difficult to effectively reduce intestinal pressure and prevent anastomotic leakage. It is more beneficial for patients to recover without placing gastric tube. Postoperative continuous epidural block and other analgesic measures relieve pain, and early removal of pipes creates conditions for early postoperative activities. Early activities promote the recovery of intestinal function, reduce the occurrence of complications such as lung, prevent muscle atrophy and facilitate rehabilitation. Effective reduction of pain after operation can improve blood supply and oxygen partial pressure of incision tissue, which is helpful for patients' physical and mental rehabilitation. Good postoperative analgesia can not only effectively relieve anxiety and depression, but also promote patients to get out of bed as soon as possible and improve gastrointestinal function.

3.3. Postoperative care

Early postoperative enteral nutrition support can help maintain gastrointestinal mucosal barrier function and reduce postoperative stress reaction. The theoretical basis is that gastrointestinal paralysis after abdominal surgery is limited to colon and stomach. The absorption and peristalsis of small intestine of patients without gastrointestinal intervention can return to normal within 4-8 hours after operation, and enteral nutrition within 6-12 hours after operation can promote the rapid recovery of gastrointestinal function. Enteral nutrition and oral feeding as soon as possible after operation can reduce hypermetabolism, reduce infection complications after abdominal operation, promote gastrointestinal motility and protect gastrointestinal mucosal function, reduce the incidence of anastomotic leakage, and effectively relieve postoperative nausea, vomiting and intestinal paralysis [12]. Tumor patients are in a state of high consumption, and surgery can be described as the second severe blow to gastrointestinal cancer patients, which leads to further increase in body consumption, resulting in insufficient intake of various nutrients, affecting tissue repair and wound healing, and weakening the body's defense ability. The traditional routine nursing practice of gastrointestinal surgery is to place gastric tube and urinary tube in ward for a long time. Patients' psychological problems after operation have changed from fear of operation before operation to worry about the prognosis after operation, so patients need targeted nursing after operation. Chewing gum when the patient is awake after operation can effectively weaken or inhibit the negative emotion of the patient, distract the patient, reduce the excessive worry about the prognosis after operation, and let the patient relax temporarily. Adopting FTS concept does not advocate routine gastrointestinal preparation and indwelling gastric tube before operation, because these measures have caused physiological changes of patients, enhanced perioperative stress response, which is not conducive to postoperative recovery of patients, increased the risk of complications, and obviously affected postoperative activities of patients, and increased psychological barriers of postoperative rehabilitation of patients.

4. Conclusions

FTS is developed on the basis of evidence-based medicine, and has been applied in many countries and regions. The results show that FTS can effectively reduce the incidence and mortality of postoperative complications, reduce postoperative stress response, promote rapid postoperative recovery, shorten hospitalization time and reduce hospitalization expenses. After the recurrence of gastrointestinal cancer, its prognosis is relatively poor. If the patient's conditions permit, comprehensive treatment measures should be implemented, which are mainly surgical treatment, supplemented by preoperative and postoperative radiotherapy or chemotherapy. Perioperative

application of the concept of rapid rehabilitation surgery in gastrointestinal tract can promote postoperative recovery, reduce the incidence of complications, improve patients' anxiety and depression, and promote patients' rehabilitation, which is worth popularizing and applying. Rapid rehabilitation surgery program is effective for patients undergoing gastrointestinal surgery. Compared with traditional methods, rapid rehabilitation surgery can reduce patients' pain, shorten the hospitalization days, reduce the hospitalization expenses and promote patients' early recovery without significantly increasing the incidence of complications and mortality, which will become the development trend of surgery.

References

- [1] Wang Xiaoqing, Duan Peibei, Zhang Xiaoqin, et al. Application of foot bath prescription of invigorating the spleen and soothing liver in the rapid recovery of patients after gastrointestinal tumor surgery. *Journal of Nursing Science*, vol. 33, no. 6, pp. 49-51, 2018.
- [2] Lu Yun, Chen Shan, Xu Yuping. The application effect of mind map combined with supervision and management in the health education of patients getting out of bed after gastrointestinal tumor surgery. *Journal of Nursing Management*, vol. 18, no. 10, pp. 78-82, 2018.
- [3] Jiang Lanlin, Qin Wei. Application of the concept of rapid rehabilitation surgery in laparoscopic gastrointestinal tumor surgery. *China Healthcare & Nutrition*, vol. 29, no. 11, pp. 50-51, 2019.
- [4] Ruan Zheng. Application of airway management in rapid recovery of patients undergoing gastrointestinal tumor surgery. *General Nursing*, vol. 17, no. 1, pp. 83-85, 2019.
- [5] Tian Wenhua, Zhang Cailing. Research on the effect of rapid rehabilitation surgery concept applied to gastrointestinal tumor surgery anesthesia. *Chinese Medical Engineering*, vol. 25, no. 11, pp. 80-82, 2017.
- [6] Chen Jing. Application of rapid rehabilitation therapy in the operation of middle-aged and elderly patients with gastrointestinal tumors. *Modern Hospital*, vol. 207, no. 1, pp. 134-135, 2020.
- [7] Wang Xiaolong, Zhang Chengwu, Cai Baojia, et al. Application of rapid rehabilitation surgery in the perioperative period of gastric cancer patients. *Modern Oncology Medicine*, vol. 26, no. 23, pp. 3796-3799, 2018.
- [8] Zhang Yike. Evaluation of the effect of rapid rehabilitation surgical nursing in the perioperative period of gastrointestinal tumors. *Electronic Journal of Clinical Medicine Literature*, vol. 5, no. 84, pp. 113-114, 2018.
- [9] Guo Yingying. Application of rapid rehabilitation surgical nursing in the perioperative period of gastrointestinal tumors. *Diet and health care*, vol. 4, no. 23, pp. 297-298, 2017.
- [10] Jiang Liping, Wu Fangyan. The feasibility and effect of applying the concept of rapid rehabilitation surgery in the perioperative period of gastrointestinal tumors under the multidisciplinary cooperation model. *Electronic Journal of Practical Clinical Nursing*, vol. 2, no. 10, pp. 134-135, 2017.
- [11] Li Jiandi, Lin Chunying, Li Jidi, et al. Clinical nursing practice of rapid rehabilitation nursing in gastrointestinal surgery. *Electronic Journal of Modern Medicine and Health Research*, vol. 52, no. 21, pp. 117-119, 2019.
- [12] Wu Fei, Fu Yaowu, Zhang Guan. Study on the effect of rapid rehabilitation nursing on the effect of early upper gastrointestinal tumor surgery and complications. *Journal of Digestive Oncology (Electronic Edition)*, vol. 11, no. 1, pp. 68-71, 2019.