



Research Progress on Perioperative Nursing of Fast Track Surgery for Thyroid Cancer

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Abstract: Thyroid cancer is a common disease, and surgical intervention is the preferred treatment option. However, in order to ensure surgical effectiveness and safety, perioperative nursing is crucial. Chinese experts have put forward various opinions and recommendations regarding the nursing care for thyroid cancer, among which fast track surgery (FTS) has gained popularity as a nursing approach. FTS encompasses preoperative and postoperative care, with the aim of promoting early patient recovery and emphasizing a patient-centered care philosophy. It has shown significant application value. This article provides a brief overview of the emergence and development of FTS, and introduces the perioperative nursing of FTS for thyroid cancer, hoping to offer theoretical reference for healthcare professionals in the field.

Keywords: thyroid cancer, perioperative nursing, fast track surgery (FTS), expert consensus

1. Introduction

Thyroid cancer is a common malignant tumor, accounting for 1% of all malignancies [1]. Patients with thyroid cancer are predominantly female and commonly occur in young and middle-aged individuals [2]. Thyroid cancer has four pathological types, with papillary carcinoma being the most common. It has a relatively low malignant degree and a favorable prognosis, often requiring surgical treatment [3]. Thyroid cancer is mostly characterized by a solitary tumor located in one lobe of the thyroid gland. By removing the lesion and performing lymph node dissection, the therapeutic goal can be achieved [4]. However, surgical intervention can cause certain trauma and induce stress responses. To reduce patient stress, promote early postoperative recovery, and minimize postoperative complications, perioperative nursing must be effectively implemented. The "Expert Consensus on Postoperative Management of Differentiated Thyroid Cancer in China (2020 Edition)" [5] and the "Expert Consensus on Perioperative Nursing of Fast Track Surgery for Thyroid Cancer" [6] have provided relevant recommendations for nursing care in thyroid cancer, guiding clinical practice. FTS is a highly regarded perioperative nursing approach that can mitigate trauma-induced stress, promote postoperative recovery, and improve prognosis [7].

2. Overview of FTS Nursing

FTS refers to the application of evidence-based optimization measures during the perioperative period to reduce or alleviate physiological and psychological trauma-induced stress in surgical patients, promoting their rapid recovery [8]. It is a new nursing concept that has emerged based on advancements in life sciences, socio-economic development, and a new understanding of health. Clinically, it advocates the use of relevant interventions in FTS to reduce the medical burden on patients, shorten hospital stays, and decrease treatment costs [9]. The research on FTS originated in 1990 and has been carried out in countries such as the United States, Denmark, Germany, and others, yielding promising results [10]. In China, Sichuan University has conducted related studies on FTS, demonstrating its ability to alleviate surgical stress, reduce postoperative complications, and expedite postoperative recovery [11]. FTS emphasizes a patient-centered approach to diagnosis and treatment, aiming to achieve a synergistic effect through the combination of various nursing measures [12]. During the implementation of FTS, nursing staff need to actively shift from traditional nursing concepts, making rapid recovery the primary objective of nursing care and using patient-specific care plans as a foundation, in order to accelerate patient recovery and shorten hospital stays [13].

3. Measures in FTS

3.1 Preoperative Nursing

(1) Health education: Inadequate knowledge and low compliance are major factors affecting the effectiveness of thyroid

surgery and postoperative recovery. Insufficient health education is the key contributor to these issues [14]. To address the cognitive needs of patients with thyroid cancer, nurses should provide handbooks or play videos as routine educational materials. Additionally, verbal education should be emphasized, with a detailed understanding of patients' disease and surgical knowledge. Incorrect perceptions should be corrected, and weak areas of understanding should be enriched. Patients need to understand that thyroid cancer has a relatively low malignant degree, early surgical intervention has a high probability of achieving a cure, and the degree of treatment and nursing cooperation affects postoperative recovery. This will help eliminate patient non-compliance with treatment and nursing tasks and improve their level of disease understanding. During this process, individualized education should be implemented based on the severity of the patient's condition. For example, explaining the causes of abnormal indicators, evaluating the effectiveness of the disease, and providing recovery plans to restrain inappropriate patient behavior, thereby providing a foundation for safe and successful surgery.(2) Psychological care: Thyroid cancer and surgical procedures are both psychological stressors that can induce severe psychological distress and even lead to psychological disorders, affecting the patient's motivation for postoperative recovery [15]. Proactively assessing the patient's psychological state, identifying psychological care needs, providing reassurance and encouragement, sharing successful case examples of similar diseases that have achieved surgical success and cure, and enhancing the patient's confidence in recovery are essential. This helps alleviate patient concerns and anxiety, and encourages their active participation in the surgery and recovery process.(3) Position training: To ensure a clear surgical field of view, patients need to have their shoulders elevated on one side and maintain a prolonged supine position with neck hyperextension during the operation. This can lead to position-related syndromes such as nausea and vomiting after surgery [16]. To reduce the incidence of these symptoms, patients should be guided to undergo preoperative position training, allowing them to adapt to this position in advance and reduce the occurrence of postoperative nausea and vomiting.

3.2 Postoperative Nursing

(1) Pain management: Postoperative pain is a major factor that limits early mobilization and rehabilitation training of patients and can exacerbate their psychological stress response, hindering early postoperative recovery [17-18]. After the anesthesia subsides, patients should be taught pain assessment methods to objectively and accurately evaluate the severity of their pain. Based on the assessment results, appropriate nursing interventions should be provided. If the pain score is below 3, non-pharmacological methods such as listening to music, meditation therapy, and breathing relaxation training can be utilized, along with intermittent ice application on the neck for pain relief. Ice application can slow down nerve conduction, reduce nerve sensitivity, decrease muscle excitability, and alleviate postoperative pain intensity. If the patient's pain score is 3 or higher, in addition to the aforementioned non-pharmacological pain relief methods, medication administration via infusion pump or oral route should be provided according to the physician's instructions to achieve pain control and relieve pain symptoms.(2) Eating and activity: Early postoperative eating and activity are key components of FTS and crucial for the rapid restoration of the patient's physical functions [19]. After the patient regains consciousness from anesthesia and their vital signs stabilize, they can be provided with a small amount of warm water for drinking. Attempts can be made to assist the patient in turning over and performing leg flexion and extension exercises, while also encouraging vocal exercises. If the patient shows no abnormalities after several consecutive sips of warm water, a semi-liquid diet can be initiated at 12 hours postoperatively. The patient can be encouraged to get out of bed and attempt activities such as bedside ambulation and chair-assisted activities to promote limb function recovery. If there are no abnormalities after eating and exercising, a regular diet can be introduced at 24 hours postoperatively, and the patient can engage in activities in the resting area or walk in the corridor to accelerate metabolism and blood circulation.(3) Early exercise: The thyroid has a relatively complex anatomical structure with abundant blood vessels and nerves, making it prone to complications such as edema, scar contracture, and functional impairments after surgery [20]. Nurses need to proactively inform patients about these potential complications, emphasize the risks associated with them, and develop early exercise plans tailored to the patient's specific condition. The plan should be communicated to the patient, highlighting the positive effects of early exercise and encouraging their cooperation. On the first day after surgery, neck function exercises should start with low intensity, small range of motion, and short duration, aiming to avoid any discomfort. Gradually increase the amount and intensity of the exercises, with a duration of 10 minutes and 3-4 sessions per day. To ensure patient compliance with early exercise, proper psychological guidance should be provided to prevent patients from worrying about pain and avoiding exercise.

4. Conclusion

Surgical treatment is the preferred approach for thyroid cancer, but it can cause trauma and postoperative discomfort such as pain, nausea, vomiting, and functional impairments, which hinder early patient recovery. Implementing enhanced recovery after surgery (ERAS) during the perioperative period can reduce patients' physical and psychological stress

responses, alleviate discomfort symptoms, lower the incidence of postoperative complications, and facilitate early recovery and rehabilitation. It is worth promoting and popularizing ERAS in clinical practice.

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