Observation of the Effectiveness of Rapid Recovery Nursing on Lung Cancer Surgery Patients and Its Impact on Sleep Quality

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Abstract

Objective: To investigate the nursing effects of rapid recovery care measures on lung cancer surgery patients. **Methods:** 42 cases of lung cancer surgery patients were divided into control group and study group, with 21 cases in each group. The sleep quality and postoperative recovery indicators were compared between the two groups. **Results:** The study group showed better results than the control group in terms of PSQI scores, venting time, extubation time, time to getting out of bed, and duration of antibiotic use, with $P < 0.05$. **Conclusion:** Rapid recovery nursing has a positive impact on improving sleep quality and promoting postoperative recovery in lung cancer surgery patients.

Keywords

Rapid Recovery Nursing, Lung Cancer Surgery, Sleep Quality

1. Introduction

Surgical treatment for lung cancer is the main method of treating early-stage lung cancer patients. It has the advantages of minimal trauma and less pain. However, due to the impact of the disease, most patients experience certain levels of psychological pressure, physical discomfort, and pain before and after the surgery, which affects their sleep quality. Therefore, effective nursing measures are needed to improve their sleep quality. This study provides a brief description of fast-track recovery nursing measures and analyzes the impact of this nursing model on patients undergoing lung cancer surgery.

2. General Information and Methods

2.1. General Information

Number of cases and duration: 42 cases, from March 2020 to June 2021. Sample selection: Lung cancer patients who underwent surgery at our hospital, with a male-to-female ratio of 24:18, and an average age of (56.3 ± 4.7) years. Grouping method: Average method. Groups: Control group and study group, each with 21 cases. After comparing the sample data between groups, the difference is not significant, P > 0.05.

2.2. Nursing Methods

For the control group, routine care is provided, including rehabilitation guidance, condition monitoring, dietary guidance, environmental care, and other contents. On this basis, the research group receives fast-track recovery care.

2.2.1. Preoperative

1) Evaluate the patient's condition, postoperative complications risks, psychological state, cognitive level, etc., and formulate a nursing plan based on the assessment results.

2) Advise the patient to quit smoking, guide them in respiratory function training such as diaphragmatic breathing, proper coughing techniques, etc., and encourage preoperative aerobic exercise to improve cardiorespiratory function.

3) Implement psychological intervention and preoperative education, inform the patient about the process of lung cancer surgery, precautions, postoperative complications, etc., to prepare them psychologically and alleviate any tension or anxiety caused by a lack of understanding of the surgery.

2.2.2. Postoperative

1) Assist the patient in turning over 6 hours after surgery, guide them in simple exercises, and advise family members to provide liquid food for the patient.

2) Perform passive exercises for the patient on the first day postoperatively, promptly clear their respiratory secretions, and instruct them to cough to facilitate phlegm expectoration.

3) Encourage the patient to get out of bed and engage in early mobilization, during which the patient can use a multifunctional mobile frame for slow movements, control the duration and intensity of activity, and gradually improve lung function.

4) Assess the patient's pain level and provide multimodal analgesia based on the assessment results to avoid the patient experiencing negative emotions due to pain, ensure their sleep quality, and reduce overnight rounds to minimize external noise disturbance.

2.3. Evaluation Standard

1) Sleep quality: Evaluate the sleep quality of the two groups using the PSQI

scale (scored on a scale of 0 to 100), with higher scores indicating better sleep quality.

2) Postoperative recovery indicators.

2.4. Statistical Method

Statistical analysis was performed on the acquired data through SPSS26.0 software. Sleep quality and various indicators were expressed as ($\overline{x} \pm s$), and t test was performed.

3. Results

3.1. Postoperative Recovery Indicators

The recovery time of various indicators in the study group was shorter than that of the control group. Detailed results are shown in Table 1.

3.2. Sleep Quality

The PSQI scores of the study group were higher than those of the control group, with a significance level of P < 0.05. For detailed results, please refer to Table 2.

4. Discussion

In lung cancer surgery, thoracoscopy is commonly used to treat patients. With the assistance of modern video recording technology and high-tech surgical equipment, thoracoscopy offers advantages such as small incisions, minimal pain, and fewer postoperative complications. It has become a common approach in radical lung cancer surgery. Although surgery can control the condition and alleviate lung cancer symptoms, improper perioperative care can also affect surgical outcomes. Additionally, lung cancer patients often have poor sleep quality due to various factors. Therefore, it is necessary to analyze the underlying causes

Table 1. Comparison of recovery indicators between the two groups ($\overline{x} \pm s$).

Group	Time of extubation (d)	Exhaustion time (d)	Antibiotic usage time (d)	Time of getting out of bed (h)
Control group (n = 21)	4.57 ± 0.63	4.38 ± 0.41	6.78 ± 0.57	42.54 ± 6.92
Study group (n = 21)	2.37 ± 0.52	2.26 ± 0.60	4.16 ± 0.62	24.04 ± 4.67
X	12.341	13.368	14.147	10.154
P	0.000	0.000	0.000	0.000

Table 2. Comparison of sleep quality between two groups ($\overline{x} \pm s$).

Group	Before nursing	After nursing
Control group (n = 21)	67.86 ± 5.28	75.63 ± 5.26
Study group (n = 21)	67.45 ± 5.57	86.32 ± 5.01
t	0.244	6.371
P	0.807	0.000

and provide rapid recovery nursing measures [1] [2] [3].

In the specific nursing process, caregivers should adhere to the principle of "patient-centered" service, always prioritize the patient's needs, and actively communicate and engage with the patient. Based on understanding the patient's psychological state, targeted counseling and intervention measures should be provided. Research results indicate significant differences in sleep quality and recovery time of various indicators postoperatively between the two groups (P < 0.05). Before surgery, providing nursing guidance in psychological, cognitive, and rehabilitation training aspects to patients can help them understand the potential risks after the procedure and alleviate their adverse emotions during and after surgery. Postoperatively, massage and analgesics can alleviate the patient's pain, reduce stimulation to the sympathetic nervous system, to some extent, relieve the patient's stress response. In addition, guiding the patient to engage in physical activities and enhancing their physical condition can help prevent postoperative complications, improve comfort, and promote better sleep quality.

5. Conclusion

In conclusion, under rapid recovery nursing, the sleep quality of lung cancer surgical patients significantly improves, and there is also a noticeable improvement in recovery indicators, which is beneficial for promoting early recovery in patients.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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