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Prevention and Nursing Experience of Complications in Advanced Lung Cancer

Ting Yuan, Yanli Wang, Yan Zhou*, Huiru Xu

Department of Thoracic Oncology, Shanxi Bethune Hospital, The Third Clinical Medical School of Shanxi Medical University, Taiyuan 030032, Shanxi Province, China

Corresponding author: Yan Zhou, 244285450@qq.com

Abstract: *Objective:* To study the measures and effects of advanced lung cancer patients in terms of complication prevention and care. *Methods:* 50 cases of advanced lung cancer patients were selected for data study during January–December 2023, where the patients were divided into two groups. The study group used complication prevention and nursing care, while the control group used conventional care. The differences between the groups were compared. *Results:* Compared with the control group, the study group had significantly fewer complications, significantly lower psychological state scores, significantly higher quality of life scores, and significantly lower pain scores ($P < 0.05$). Comparing the psychological state scores, quality of life scores, and pain scores before care, both groups showed insignificant differences ($P > 0.05$). *Conclusion:* The results of patients with advanced lung cancer are ideal after the application of measures in the area of complication prevention and care.

Keywords: Advanced lung cancer; Complications; Prevention; Nursing care

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1. Introduction

Patients with advanced lung cancer are common in the clinic. Due to its high morbidity, chemotherapy is generally carried out in the process of patient treatment. However, prolonged use of drugs leads to toxic side effects [1], and advanced lung cancer patients are also prone to complications, thereby affecting the therapeutic effect of patients and aggravating pain and discomfort. Hence, it is essential to implement complication prevention and care [2]. In this paper, 50 patients were selected to explore the measures and effects of complication prevention and care in advanced lung cancer patients.

2. Materials and methods

2.1. General information

Fifty cases of advanced lung cancer patients were selected for data study, the selection time was January–December 2023, and the random number table method was divided into two groups, each group of 25 cases. In the study group, there were 15 males and 10 females, aged 54–78 (62.66 ± 3.66) years old, while in the control group, there were 14 males and 11 females, aged 55–77 (62.61 ± 3.61) years old. The result of the comparative data was that there was no statistical significance ($P > 0.05$).

2.2. Methods

The control group used conventional nursing care, distributed health manuals for patients, monitored patients' signs, provided conventional health education to patients, channeled patients' negative emotions, and provided nursing guidance for patients' diets and medications in the nursing process. The study group used complication prevention and care, specifically:

(1) Nursing care for radiation esophagitis

This disease is prone to occur when patients are treated for 14 days, so nursing staff should instruct patients to rinse their mouths promptly after eating, to avoid long-term retention of food residues in the patient's mouth, and advise patients not to eat oily food. For patients who have developed radiation esophagitis, solutions can be administered orally, including vitamin B, dexamethasone, lidocaine, and gentamicin, to promote successful feeding. Mix 1/3 bag of montelukast and 10 mL of Rehabilitation New Solution, and take it before bedtime and before and after radiotherapy to effectively protect the patient's esophageal mucosa.

(2) Nursing care in radiation pneumonitis

Nursing staff should ensure that the temperature of the ward the patient is in is appropriate and the humidity is appropriate, at 20–22°C and 40–60%. Nursing staff should strengthen the management of the environment of the ward where the patient is located, do a good job of disinfection, tell the patient not to stay in the same position for a long time while lying in bed, regularly turn over for the patient to promote effective coughing, help the patient to effectively discharge phlegm.

(3) Nursing care for myelosuppression

In the process of radiotherapy and chemotherapy, promote patients to have regular rest, tell patients to eat iron food, take vitamin B4 orally, use drugs such as Diyu Zhenbai tablets, and carry out regular checks on patients' liver and kidney functions as well as blood counts, thereby avoiding the occurrence of such complications in patients.

(4) Gastrointestinal reaction care

Nursing staff should take into account the patient's dietary preferences and habits, implement dietary care for the patient, urge the patient to eat light food, and guide the patient to eat more fresh fruits and vegetables, to effectively supplement the patient's body vitamins.

(5) Infection care

Nursing staff should strengthen the patient's protection and isolation, control the visitation, use antibiotics according to the doctor's orders, implement deep breathing guidance for patients, and help patients master effective coughing methods, to effectively prevent infection.

(6) Other care

For patient care, it is also necessary to give patients to implement health education, focusing on the prevention of complications and care, to promote patients to master the relevant knowledge, strictly comply with the doctor's

orders, cooperate with the care, but also need to give patients to implement the targeted psychological guidance, to promote the patient's bad mood can be significantly improved, and to promote the patient's confidence in the treatment of significantly improved. For patient pain care, timely assess the patient's pain situation, then carry out targeted verbal communication. If the patient has serious pain, follow the doctor's orders for patients to implement analgesic drug therapy, thereby reducing the patient's pain significantly.

2.3. Observation indicators

Comparison of complications, psychological state scores (using the Hamilton Anxiety Scale, HAMA, and Hamilton Depression Scale, HAMD), quality of life scores (using the Health Survey Short Form), and pain scores (using the Self-Statement Scale) between the two groups.

2.4. Statistical analysis

SPSS 25.0 software was used for statistical analysis, data were expressed as either [*n* (%)] or mean ± standard deviation (SD), with either the χ^2 test or the *t*-test implemented, and $P < 0.05$ indicating statistically significant differences.

3. Results

Compared with the control group, the study group had significantly fewer complications, significantly lower psychological state scores, significantly higher quality of life scores, and significantly lower pain scores ($P < 0.05$) after nursing care. The psychological state scores, quality of life scores, and pain scores of the two groups before nursing care yielded $P > 0.05$, showing insignificant differences between the two groups. Details are shown in **Table 1–3**.

Table 1. Comparison of complications between the two groups [*n* (%)]

Group	*n*	Pressure ulcers	Oral ulcers	Venous thrombosis	Gastrointestinal reaction	Total
Study group	25	0	1	0	1	2 (8.00)
Control group	25	1	3	1	4	9 (36.00)
χ^2 value						5.7110
P value						< 0.05

Table 2. Comparison of psychological state scores and pain scores (points) between the two groups (mean ± SD)

Group	n	HAMA		HAMD		Pain score	
		Before care	After care	Before care	After care	Before care	After care
Study group	25	22.2 ± 3.2	5.2 ± 0.6	21.5 ± 2.4	5.1 ± 0.5	8.2 ± 0.7	4.1 ± 0.2
Control group	25	22.4 ± 3.3	13.1 ± 1.2	21.4 ± 2.5	13.5 ± 1.2	8.1 ± 0.8	6.6 ± 0.9
t value		0.2175	29.4416	0.1443	32.3077	0.4704	13.5582
P value		> 0.05	< 0.05	> 0.05	< 0.05	> 0.05	< 0.05

Table 3. Comparison of quality of life scores of the two groups (mean ± SD)

Index		Study group (n = 25)	Control group (n = 25)	t value	P value
Physiological functions	Before care	22.62 ± 3.04	22.51 ± 2.02	0.1507	> 0.05
	After care	33.22 ± 2.25	29.11 ± 2.34	6.3304	< 0.05
Physiological responsibilities	Before care	24.44 ± 2.52	24.35 ± 3.62	0.1020	> 0.05
	After care	33.85 ± 2.65	28.11 ± 4.32	5.6630	< 0.05
Vitality	Before care	24.42 ± 3.07	24.36 ± 3.05	0.0693	> 0.05
	After care	33.96 ± 2.75	27.11 ± 4.32	6.6881	< 0.05
Social functions	Before care	23.82 ± 3.33	23.85 ± 3.32	0.0319	> 0.05
	After care	33.11 ± 4.15	26.85 ± 4.61	5.0461	< 0.05
Role functions	Before care	24.92 ± 3.02	25.05 ± 2.62	0.1626	> 0.05
	After care	27.12 ± 2.11	33.44 ± 3.61	7.5573	< 0.05
Cognitive functioning	Before care	23.12 ± 3.11	23.68 ± 2.42	0.7105	> 0.05
	After care	28.66 ± 4.21	33.52 ± 3.27	4.5584	< 0.05
Mental health	Before care	22.56 ± 2.14	22.65 ± 2.11	0.1497	> 0.05
	After care	27.88 ± 4.56	33.65 ± 4.06	4.7252	< 0.05
Total score	Before care	26.88 ± 2.44	26.82 ± 3.41	0.0715	> 0.05
	After care	36.32 ± 5.98	40.26 ± 2.33	3.0695	< 0.05

4. Discussion

Patients with advanced lung cancer need to pay attention to complication prevention and care in nursing [3,4]. These complications include pressure ulcers, oral ulcers, venous thrombosis, and gastrointestinal reactions. Clinical analysis has concluded that implementing measures to prevent and care for complications in advanced lung cancer patients is of great significance and has high clinical value [5].

The experiments in this study showed that, compared to the control group, the study group had significantly fewer complications, lower psychological state scores, higher quality of life scores, and lower pain scores ($P < 0.05$). Comparing the psychological state score, quality of life score, and pain score before nursing between the two groups yielded $P > 0.05$. Analyzing these results, it was concluded that the measures applied for the prevention and care of complications in patients with advanced lung cancer are highly feasible.

In patient care, all changes in patients' signs are closely observed [6–12], and oral cleaning and care are strengthened to avoid oral ulcers effectively. Patients receive regular limb massages and are instructed on proper body positioning. During the nursing period, the prevention of complications, appropriate care, and other nursing measures such as health education, psychological intervention, and pain care, significantly improve the patient's condition. These measures reduce pain, alleviate negative psychological states, and significantly reduce complications. Overall, these interventions promote the patient's physical and mental health, significantly improving their quality of life [13–15].

5. Conclusion

In conclusion, the application of these measures in the prevention of complications and nursing care for patients with advanced lung cancer is highly effective. Patients show significant improvement in complications, psychological state, quality of life, and pain, making these measures worthy of clinical promotion.

Disclosure statement

The authors declare no conflict of interest.

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