Prevention and nursing analysis of complications of bladder perfusion after bladder tumor surgery

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Abstract: Objective: To explore and analyze the nursing effect of complication prevention nursing on patients with bladder perfusion after bladder tumor surgery. **Methods:** From January 2018 to December 2018, this time period, 120 cases of bladder perfusion treated in our hospital for patients with bladder tumor were the study object, to coin toss all 60 cases patients were randomly divided into reference group and research group, respectively in the nursing process on the implementation of routine nursing and prevention of complications; The complications after nursing and the quality of life of the patients in the two groups were compared. **Results:** There were 4 cases of complication in the study group. The complication rate of 6.7% was significantly lower than that of 25.0% in the reference group receiving routine care,$P<0.05$. At the same time, the quality of life score was significantly higher than that of the reference group after nursing, $P<0.05$. **Conclusion:** In the process of nursing the patients who received bladder perfusion therapy after bladder tumor surgery, complication prevention and nursing can effectively reduce the possibility of various complications in the patients, and also can significantly improve the quality of life of the patients, which has a high value of popularization and application.

1. Introduction

Bladder neoplasms have a high incidence of urinary tract neoplasms clinically, and the statistics show that the incidence of bladder neoplasms is the first among Chinese male urinary tract neoplasms. Studies have shown that bladder cancer rates are three to four times higher in men than women, so exploring ways to treat bladder tumors has important practical implications. Currently, surgical excision and bladder perfusion are the most widely used methods for bladder tumors. Bladder perfusion therapy is the infusion of anti-cancer and immunological drugs into the bladder of a patient. This is an immune and chemotherapy method, although the effect is relatively ideal, but the use of this therapy not only treatment for a long time, but also in the treatment process often repeated transurethral insertion, resulting in a high incidence of complications. In the process of nursing this kind of patients, the hospital tried to adopt the complication prevention nursing, and achieved a relatively ideal effect. This report is as follows:

2. Materials and Methods

2.1 General Materials

From January 2018 to December 2018, 120 patients who received bladder perfusion therapy after bladder tumor surgery in our hospital were selected as subjects for this study, and the patients were randomly divided into 60 reference groups and research groups by coin toss. The ratio of male to female was 38:22 and 37:23, respectively. The mean age was (54.5±7.2) and (55.3±6.9), respectively. Two groups of patients had pathology classification, I level, the number of levels II, III 14 respectively, 29, 17 cases and 15, 30, 15 cases. The general information and disease degree of the patients in the two groups were statistically compared, showing no significant difference ($P>0.05$).

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2.2 Inclusion Criteria

Inclusion criteria :(1) all patients included in the study received surgical treatment and were confirmed as bladder tumors by pathological examination; (2) the estimated survival time of all patients exceeds 180 days; (3) all patients have good mental state and normal communication skills; (4) all patients and their families have a clear understanding of the study and are willing to participate in it.

Exclusion criteria :(1) exclude patients with a history of mental illness; (2) excluding patients with severe renal function loss; (3) patients with dysfunction of blood system and important organs are excluded.

2.3 Methods

After admission, all patients received bladder tumor resection, and then started bladder perfusion with 40mg pirobicin combined with 40ml sterile injection within 7 to 20 days after surgery. After that, perfusion therapy was performed once a week. After 8 weeks of continuous therapy, perfusion therapy was performed once a month with a treatment period of 0 months.

In this process, routine nursing was carried out for the reference group of patients, mainly including the following contents :(1) introduce the knowledge of bladder tumor disease and perfusion therapy to the patients, as well as the matters needing attention during this period; (2) pay close attention to patients' reactions during treatment to ensure the effective completion of treatment; (3) accept the patient and family members' inquiries and give patient answers.

For the study group of patients, on the basis of routine treatment, the implementation of complications prevention nursing, mainly including the following contents:

2.3.1 Nursing before perfusion

Before perfusion treatment, emotional counseling and psychological construction should be done for patients. Due to the poor postoperative physical function of patients, plus the one-sided understanding of tumor diseases, many patients regard it as incurable disease, so they are severely tortured mentally, resulting in severe anxiety, fear and other negative emotions. So, must want to carry out effective psychology to nurse to the patient. According to the patient's education level and cognitive ability, the patient is introduced to the relevant knowledge of the disease and treatment prospects, helping them to establish a positive attitude and a good attitude towards life, and guiding the patient to change the bad lifestyle. In addition, while guiding patients, it is necessary to attach importance to health education for family members, so as to help patients build up treatment confidence through the joint efforts of families. For any doubt of patients, we should give clear answers, and strive to eliminate patients' doubts, so that patients can establish a correct understanding of the disease and perfusion treatment, and understand its efficacy and safety. At the same time, patients should be informed of the possible adverse reactions in the treatment process, such as dysuria, etc., to help patients build up a mind to overcome difficulties in advance.

2.3.2 The status of bladder mucosa was comprehensively evaluated

The routine urine results of the patient were comprehensively evaluated. Under normal results, the patient first held back urine for 2h, and then perfusion therapy could be given to the patient. After the completion of perfusion, the catheter should be pulled out about 2h. Because patients treated with attention, must first have a certain time of a full bladder capacity, so nursing staff should before training and guidance in patients with a full bladder, prevention and treatment before bladder contraction, unable to abnormal conditions, such as method may guide patients by contraction of the anus, for example, to cope with the possible phenomenon such as urinary incontinence.

2.3.3 Perfusion nursing

Choose the best type of catheter suitable for the patient, and try to make the patient comfortable. In the course of treatment, patients' privacy should be effectively protected, and any personal

information must be well shielded. Chemotherapeutic drugs have relatively strong stimulation, so in this process, the nursing staff should do real-time supervision of the patient's condition. If the drug solution extravasation is found, the patient should be thoroughly cleaned with warm water. During perfusion, aseptic procedures must be strictly followed and the patient must be informed that the perineum must be kept clean. In the process of intubation, try to ensure a gentle movement and the urinary tube should not be too fine, so as to prevent and control the injury to the urethra. During intubation, the patient should be told to breathe deeply as much as possible, which can improve the discomfort to some extent. Male patient, before inserting, should carry out full embellishment of urinal tube above all, in the place that has resistance, want to maintain force appropriately as far as possible. Female patients, before insertion, should first do exploratory measures to prevent the insertion process into other concave parts. If urethral stricture is present, dilatation of the urethra may be performed first, followed by perfusion. In the process of infusion, the speed of infusion should be reasonably controlled to maintain even and appropriate strength. Usually, infusion of the liquid is completed within 2 to 3 minutes. If the infusion is too fast, it may cause serious impact damage to the bladder mucosa due to the impact of the liquid. In this process, the nursing staff should be strict and solid catheter condition, to ensure that it is fixed properly and has a good patency, prevention and treatment of catheter falling off and other events.

2.3.4 Post-perfusion nursing

After perfusion, the patient should be helped to change the position every half hour so as to allow full integration between the bladder mucosa and the solution. From the end of perfusion to the elimination, it usually takes half an hour to 1 to disappear. After that, patients should be told to drink as much water as possible and urinate as much as possible, and make sure to drink at least 2500ml water every day, so that the medicine solution can be completely discharged as far as possible. Patients are advised to get enough sleep after treatment. At the same time, the color and volume of the patient's urine were recorded, and whether the patient felt burning or pain was known and targeted treatment was given.

2.4 Observation Indicators

(1) Statistics and comparison of complications in the whole treatment process between the two groups; (2) the quality of life core scale (qlq-c30) was used to investigate and compare the quality of life of patients in the two groups. The scale includes six dimensions, and scores for each temperature are proportional to quality of life.

2.5 Statistical Method

SPSS20.0 was used to conduct statistical analysis of the relevant indicators of the two groups of patients in the study. T value was used to test the quality of life score, and χ^2 was used to calculate the incidence of complications, and $P<0.05$ was used as the judgment standard with statistical significance.

3. Results

3.1 Complications

There were 4 complications in the study group. The complication rate of 6.7% was significantly lower than that of 25.0% in the reference group receiving routine care,$P<0.05$.

Table 1 comparison of complications between the two groups (n/%)

Groups	n	spasm	irritability	urethritis	rash	hematuria	complication rate
The research group	60	1	1	1	0	1	4(6.7%)
The reference group	60	4	3	4	1	3	15(25.0%)
P							<0.05

3.2 Comparison of life quality

There was no significant difference in quality of life score between the two groups before nursing. After nursing, emotional function, role function, physical function, social function and overall health scores of the study group receiving complication prevention nursing were significantly better than those of the reference group (P<0.05).

Table 2

dimensionality	The research group(n=60)		The reference group(n=60)	
	Before nursing	After nursing	Before nursing	After nursing
emotional function	64.8±1.6	88.5±3.6#	65.4±1.7	78.3±1.7
role function	68.0±6.7	88.1±1.6#	68.4±6.4	77.7±3.6
physical function	74.5±4.9	86.1±6.6#	75.3±4.8	80.2±3.7
social function	67.9±4.7	88.5±6.9#	67.5±5.0	82.0±4.0
cognitive function	89.8±3.7	94.1±6.6	90.2±2.8	92.6±1.7
overall health	69.9±6.6	89.8±4.6#	72.2±5.8	83.0±6.1

Note: compared with the reference group, #P<0.05.

4. Discuss

Preventive nursing is a targeted nursing model aimed at specific goals. Specifically, this study is aimed at patients with bladder tumor resection, who received bladder perfusion therapy in order to effectively prevent the occurrence of complications and nursing.

Therefore, such a nursing model has a clear goal, so it is more targeted and patient care is more detailed and comprehensive, so as to achieve the purpose of reducing the incidence of complications in patients. In this study, a total of 4 patients with complications occurred in the study group receiving complication prevention care. The complication rate of 6.7% was significantly lower than that of 25.0% in the reference group receiving routine care,P<0.05. In addition, the comparison and comparison of the quality of life score between the two groups also showed that the quality of life score of the study group was significantly higher than that of the reference group after nursing, P<0.05.

In conclusion, in the process of nursing patients receiving bladder perfusion therapy after bladder tumor surgery, the use of complication prevention nursing can effectively reduce the possibility of various complications in patients, and at the same time, it can significantly improve the quality of life of patients, which is of high popularization and application value.

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