

# The Effects of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery

Rongzhu Xu\*

Urological Surgery, Yacheng NO.1 People's Hospital of Jiangsu Province, Yancheng 224000, Jiangsu Province, China

\*Corresponding author: Rongzhu Xu, 75739517@qq.com

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**Abstract: Objective:** To explore the effect of nursing risk intervention on drainage safety after prostatic hyperplasia surgery. **Methods:** 80 patients who underwent prostatic hyperplasia surgery in our hospital (People's Hospital of Jiangsu Province) from August 2020 to August 2021 were randomly divided into group A and group B. Patients in group A were treated with routine postoperative drainage nursing intervention, and patients in group B were given nursing risk intervention based on group A, and the intervention results of the two groups were compared. **Results:** Comparison of patient satisfaction: the patient satisfaction in group B (97.50%) was higher than that in group A (25.00%). Comparison of drainage tube accidents: the accident rate of group B was lower than that of group A; Comparison of patients' psychological anxiety: the psychological anxiety of patients in group B after nursing intervention was lower than that in group A. Comparison of patients' quality of life: the quality of life of patients in group B after nursing intervention was higher than that in group A. The difference was statistically significant ( $P < 0.05$ ). **Conclusion:** Clinical nursing risk intervention after prostatic hyperplasia surgery can greatly improve the safety of drainage, reduce patients' psychological anxiety and improve patients' quality of life after treatment. It has the value of clinical application and promotion.

**Keywords:** Nursing risk intervention; Postoperative prostatic hyperplasia; Drainage safety

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## 1. Introduction

Prostate hyperplasia is a common disease in the elderly, which incidence rate is positively related to the age of the patient. It is also known as prostatic hyperplasia. The symptoms are not obvious. With the aggravation of the disease, the symptoms gradually begin to manifest, including the period of urine storage (mainly frequent micturition, urgent urination, etc.), voiding period (mainly dysuria) and after urination (mainly endless urination)<sup>[1]</sup>. Surgical treatment is often used for patients with benign prostatic hyperplasia. After operation, the patient is given a urinary catheter to drain the patient's urine. Accidents (distortion, displacement, obstruction, slippage, etc.) of the drainage tube are often caused by nursing manipulation, which has a great impact on the patient's physical and mental health and postoperative recovery<sup>[2]</sup>. The effect of clinical nursing methods on patients is not very ideal. With the progress of medical technology, nursing risk intervention began to be gradually used in the application of drainage safety after prostatic hyperplasia.

## **2. Materials and methods**

### **2.1. General information**

80 patients who underwent prostatic hyperplasia surgery in our hospital from August 2020 to August 2021 were randomly divided into group A and group B. The patients in group A were 55-79 years old, with an average age of  $(65.4 \pm 0.9)$  years old; The course of disease was 9.5-22 years, with an average course of  $(16.5 \pm 2.1)$  years. The patients in group B were 56-79 years old, with an average age of  $(64.4 \pm 0.8)$  years old; The course of disease was 10-23 years, with an average course of  $(16.7 \pm 2.2)$  years. There was no significant difference in general materials between the two groups ( $P > 0.05$ ).

### **2.2. Methods**

Group A used routine nursing intervention, including correctly fixing the drainage tube for patients, regularly checking the position of the drainage tube, and telling patients to pay attention to the occurrence of drainage tube accidents.

Group B implemented nursing risk intervention on the basis of routine nursing operation intervention in group A, and the specific measures were as follows:

#### **2.2.1. Set up a team**

The head nurse and responsible nurses form a nursing risk intervention group, regularly evaluate and guide the nursing risks of patients under their jurisdiction, and analyze the causes of accidents in combination with previous cases of patient risk accidents. First of all, we should avoid accidents caused by activities and turning over in daily life due to neglect of patients and their families; Secondly, we should avoid the occurrence of accidents caused by the lack of nursing awareness of nursing staff; Finally, we should regularly check whether the patient's gravity tube has separation and displacement.

#### **2.2.2. Risk education**

First of all, we should strengthen the attention of patients and their families to the safety of drainage tube, improve the risk awareness of patients and their families, timely report problems to the responsible nurse in time, and avoid accidents to the greatest extent. For patients with strong self-care ability, we should strengthen the monitoring of patients, tell patients to avoid large-scale activities, and demonstrate for patients before operation, so as to avoid accidents to the greatest extent after operation.

#### **2.2.3. Work perfection**

The responsible nurse shall regularly patrol the patients under her jurisdiction, timely find the problems reported by the patients and deal with them, or timely find the displacement during patrol, and guide the patients to avoid squeezing and pulling the drainage tube when lying in bed. During shift handover, the responsible nurse should focus on the fixation of patient drainage tube and so on.

## **2.3. Observation indexes**

### **2.3.1. Comparison of patient satisfaction**

The Patient Satisfaction Survey on Nursing Work prepared by the undergraduate department was adopted, and the results were divided into: satisfaction, basic satisfaction and dissatisfaction. The questionnaire filled in by the patients was recorded and the number of satisfied patients was counted.

### **2.3.2. Comparison of accidents of drainage tube**

During the treatment, the occurrence of drainage tube accidents in patients was observed and recorded, and the probability of accident was statistically summarized in the two groups.

### 2.3.3. Comparison of patients' psychological anxiety

The psychological status of patients with anxiety and depression was compared between the two groups before and after nursing by using self-rating anxiety scale and self-rating depression scale (SAS and SDS). The score range was 0-10. The larger the score was, the more serious the patient's psychological condition (anxiety and depression) was.

### 2.3.4. Comparison of patients' quality of life

The quality of life of the two groups before and after nursing was evaluated by quality-of-life scale (SF-36). The score range was 0-100, and indicated the strong and poor quality of life of patients by the score.

## 2.4. Statistical analysis

The data of prostate patients were processed by SPSS 24.0 statistical software. The counting data were expressed in (n/%),  $\chi^2$  represents the test, the measurement data is expressed in ( $\bar{x} \pm s$ ), t represents the test,  $P < 0.05$  is the patient data, and the difference is statistically significant.

## 3. Results

### 3.1. Comparison of clinical efficacy between the two groups

According to the feedback of the questionnaire results, the nursing satisfaction of patients in group B (97.50%) was higher than that of patients in group A (82.50%), and the difference was statistically significant ( $P < 0.05$ ). See **Table 1** for details.

**Table 1.** Patient satisfaction [cases (%)]

Group	Number of cases	Satisfaction	Basically satisfaction	Dissatisfaction	Satisfaction rate
Group A	40	13(32.50)	20(50.00)	7(17.50)	33(82.50)
Group B	40	22(55.00)	17(42.50)	1(2.50)	39(97.50)
$\chi^2$ value					5.0000
P value					0.0253

### 3.2. Comparison of accidents of drainage tube between the two groups

The recorded results showed that the incidence of drainage tube accidents in group B (5.00%) was lower than that in group A (25.00%). The difference was statistically significant ( $P < 0.05$ ). See **Table 2** for details.

**Table 2.** Drainage tube accidents in patients [cases (%)]

Group	Number of cases	Twist	Fold	Displacement	Block	Slippage	Accident rate
Group A	40	3(7.50)	3(7.50)	2(5.00)	1(2.50)	1(2.50)	10(25.00)
Group B	40	1(2.50)	1(2.50)	0(0.00)	0(0.00)	0(0.00)	2(5.00)
$\chi^2$ value							6.2745
P value							0.0122

### 3.3. Comparison of psychological status between the two groups

According to the feedback results of the scoring table, the SAS and SDS scores of the two groups before the intervention were not statistically significant ( $P > 0.05$ ), and the psychological anxiety and depression of the patients in group B after the intervention were significantly lower than those in group A ( $P < 0.05$ ). See **Table 3** for details.

**Table 3.** Comparison of psychological status of patients [n,  $\bar{x} \pm s$  points]

Group	Number of cases	SAS score		SDS score	
		Before nursing	After nursing	Before nursing	After nursing
Group A	40	6.23±2.17	5.98±1.82	5.24±2.41	4.28±0.89
Group B	40	6.19±2.35	4.31±1.21	5.41±2.04	3.24±0.56
t value		0.0791	4.8327	0.3405	6.2553
P value		0.9372	0.0000	0.7344	0.0000

### 3.4. Comparison of patients' quality of life between the two groups

According to the feedback results of SF-36 rating scale, there was no significant difference in quality of life between group A and group B before nursing intervention ( $P > 0.05$ ). After the nursing intervention, the quality of life of patients in group B was significantly better than that in group A, and the data difference was statistically significant ( $P < 0.05$ ). See **Table 4** for details.

**Table 4.** Comparison of SF-36 scores between the two groups before and after nursing intervention [ $\bar{x} \pm s$ , points]

Group	Number of cases	Before the intervention	After the intervention	t value	P value
Group A	40	49.77±5.30	61.86±9.96	0.5583	0.5783
Group B	40	50.12±5.17	75.40±10.71	4.4984	0.0000
t value		0.0791	4.8327		
P value		0.9372	0.0000		

## 4. Discussion

Benign prostatic hyperplasia is a common disease in the elderly. The incidence rate is high. The way of surgical treatment is often used in clinical treatment [3]. Postoperative drainage is often used to reduce the risk of postoperative infection and bleeding. However, due to nursing reasons, patients often have risk events, which cannot ensure the safety of patients [4]. Nursing risk intervention is a new type of collective nursing intervention. Based on the analysis of the factors affecting the drainage safety of patients, we should strengthen the training of nurses' risk knowledge, so that patients and nurses can participate in nursing risk work together, so as to reduce the incidence of risk [5]. Studies have shown that the implementation of nursing risk intervention can effectively avoid the risk incidence for patients with benign prostatic hyperplasia [6].

Nursing risk intervention nurses focus on the training of risk prevention management knowledge, strengthen the awareness of nurses on risk judgment, and apply it to clinical practice to enhance the safety of patients [7]. By strengthening nursing patrol, medical staff can actively participate in the work, find problems in time, explore solutions, and jointly prevent the risk of postoperative drainage [8]. This experimental study not only strengthens the nurses' awareness of the risks related to the postoperative drainage tube of prostate patients, but also makes up for the loopholes in the previous work of nurses, greatly reduces the risk of patients, enhances the implementation safety of the postoperative drainage tube, and paves the way for the recovery of patients. The results of this study found that: Comparison of patient satisfaction: the patient satisfaction in group B (97.50%) was higher than that in group A (25.00%).

Comparison of drainage tube accidents: the accident rate of group B was lower than that of group A; Comparison of patients' psychological anxiety: the psychological anxiety of patients in group B after nursing intervention was lower than that in group A; Comparison of patients' quality of life: the quality of life of patients in group B after nursing intervention was higher than that in group A. The difference was statistically significant ( $P < 0.05$ ).

In summary, clinical nursing risk intervention after prostatic hyperplasia surgery can greatly improve the safety of drainage, reduce patients' psychological anxiety and improve patients' quality of life after treatment. It has the value of clinical application and promotion.

### **Disclosure statement**

The author declares no conflict of interest.

### **References**

- [1] Li X, 2017, Effect of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery. *China Health Care & Nutrition*, 27(17): 234-235.
- [2] Wang R, 2011, Effect of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery. *Journal of Nursing Science*, 26(22): 8-9.
- [3] Wang F, 2018, Clinical Observation on the Effect of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery. *For All Health (Late Edition)*, 12(2): 258-259.
- [4] Wang F, 2018, Clinical Observation on the Effect of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery. *Home Medicine*, (4): 258-259.
- [5] Zhang G, 2018, Effect of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery. *China Health Vision*, (7): 184.
- [6] Liu L, 2019, Effect of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery. *Super Baby*, (10): 20, 23.
- [7] Chen Y, 2018, Analysis on the Effect of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery. *Smart Healthcare*, 4(29): 125-126.
- [8] Yang S, Yang L, Ran Y, 2016, Effect of Nursing Risk Intervention on Drainage Safety after Prostatic Hyperplasia Surgery. *Shenzhen Journal of Integrated Traditional Chinese and Western Medicine*, 26(1): 22-23.

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