CLINICAL CASE

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Nursing care for an older adult patient after prostatectomy

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ABSTRACT

Objective: To describe the comprehensive care provided to a postoperative patient for benign prostatic hyperplasia during his hospital stay in the urology service. **Materials and methods:** This study was conducted following the stages of the nursing care process (NCP). The assessment considered the 11 functional patterns of Marjory Gordon, and based on the findings, diagnoses were determined according to the NANDA taxonomy and expected outcomes (NOC). Nursing interventions (NIC) were used to achieve these outcomes. **Results:** In the first nursing diagnosis all the interventions were carried out, achieving a result of 80% in the favorable evolution of the patient; in the second diagnosis the interventions were also carried out, achieving a result of 90%; in the third diagnosis the interventions were executed and a result of 100% was obtained; and in the fourth diagnosis the interventions were implemented and 90% of the expected result was achieved. **Conclusion:** The PAE is an instrument used daily in the clinical field and constitutes the fundamental basis of nursing care, including the NANDA, NOC and NIC tools, which allow offering the postoperated patient a comprehensive care based on scientific evidence.

Keywords: prostatectomy; nursing care; postoperative period.

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INTRODUCTION

Benign prostatic hyperplasia (BPH), characterized by the excessive non-malignant growth of prostatic tissue around the urethra, represents a significant health problem for men due to its high prevalence. When not treated in a timely manner, it negatively impacts patients' quality of life (1). This condition is common in adults, affecting 50% of men between the ages of 50 and 60. In those over 80 years old, the prevalence rises to 90%, with an increased risk of chronic complications related to lower urinary tract symptoms (2).

Currently, there are several surgical treatments for this pathology, such as transurethral resection of the prostate (TURP), which remains the best therapeutic alternative for adenomas exceeding 30 cm. However, 10% of patients do not

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benefit from this procedure due to prostate volume, which directly determines the resection time (3).

Unlike TURP, open adenomectomy involves the complete removal of larger prostatic adenomas, which often leads to an increase in surgical and postoperative morbidity. Since it is a surgical procedure, it entails significant blood loss and a prolonged hospital stay (4). The objective of this procedure is to improve urination and eliminate the permanent use of a urinary catheter (5).

In this context, the nursing professional plays an essential role in the care of the postoperative patient, by applying his scientific knowledge through the nursing care plan (NCP) and taking into account risk factors such as age, personal history, emotional state, among others.

The purpose of this study is to describe the comprehensive care provided to a postoperative patient with benign prostatic hyperplasia during their hospital stay in the urology department.

CLINICAL CASE PRESENTATION

A 61-year-old male patient postoperative from transvesical prostate adenomectomy, is admitted to the urology department. Assessment: Glasgow coma scale 15/15, warm and pale skin, spontaneous ventilation, rhythmic pulse, soft and depressible abdomen with pain on palpation due to bladder distention, presence of bowel sounds, peripheral venous catheter in the left upper limb, presence of surgical wound and Penrose drain, dressings moist with serosanguineous secretion, and Foley catheter for continuous irrigation, with urine showing small clots. During the interview, the patient expressed his nervousness and anxiety about his health condition. Medical treatment: ceftriaxone 2 g, tranexamic acid 1 g, alprazolam 0.5 mg, metamizole 2 g, omeprazole 40 mg. Laboratory tests: Hemoglobin level of 8 g/dL.

The following functional patterns were considered:

1. Health perception-control pattern: patient with a history of hypertension.
2. Nutritional-metabolic pattern: pale skin, presence of a surgical wound in the hypogastric region with a Penrose with drain and dressing showing serosanguineous secretion.
3. Elimination pattern: patient with a tractioned bladder catheter and presence of small clots in the urine.
4. Activity-exercise pattern: absolute rest during the first 24 hours postoperatively.
5. Cognitive-perceptual pattern: pain due to bladder distention.
6. Self-perception-self-concept pattern: mood changes.
7. Sexuality-reproductive pattern: Postoperative from prostatic adenomectomy.
8. Coping-stress tolerance pattern: nervous and anxious patient.

At the same time, the following nursing diagnoses were identified:

1. Acute pain related to physical harmful agent manifested by facial expressions of pain.
2. Urinary retention related to hematuria and the presence of clots manifested by bladder distention and pain.
3. Anxiety related to the disease process manifested by verbal expressions, distress, and worry.
4. Ineffective protection related to surgical intervention, evidenced by low serum hemoglobin level.

Nursing care plans are presented in Tables 1 to 4.

NURSING CARE PLANS

Table 1. Care plan No. 1.

Nurse diagnosis: (00132) Acute pain related to a physical injurious agent, manifested by pain facial expressions (6).

PLANNING				IMPLEMENTATION			EVALUATION	
Results and indicators	**Baseline score** (1-5 pts.)	**Target score**	**Interventions/activities**				**Final score** (1-5 pts.)	**Change score**
Result: (2102) Pain level (7).	3	Maintains at: 5 Increases to: 5	**Intervention:** (1410) Management of acute pain (8).				4	+1
Scale: Severe (1 pt.) - None (5 pts.)							**Scale:** Severe (1 pt.) - None (5 pts.)	
Indicators			**Activities**	**M**	**T**	**N**	**Indicators**	
Describe the pain.	3		- Evaluate the characteristics of pain (location, duration, onset, frequency and intensity, as well as factors that relieve or worsen it).	X	X	X	Describe the pain.	4
Set goals for pain relief with the healthcare professional.	3		- Determine the intensity of pain during movements in activities of progression.	X	X	X	Set goals for pain relief with the healthcare professional.	4
Use analgesics as recommended.	3		- Ensure that the patient receives analgesic care immediately before the pain increases.	X	X	X	Use analgesics as recommended.	4
			- Administer analgesics within the first 24 to 48 hours postoperatively.	X	X	X		
			- Assess the effect of the medication on the pain intensity of the patient.	X	X	X		
Observation or note: Pain was reduced from moderate (3 pts.) to mild (4 pts.).								

Table 2. Care plan No. 2.

Nursing diagnosis: (00022) Urinary retention related to hematuria and the presence of clots, manifested by bladder distension and pain (6).

PLANNING				IMPLEMENTATION	EVALUATION	
Results and indicators	**Baseline score** (1-5 pts.)	**Target score**	**Interventions/activities**		**Final score** (1-5 pts.)	**Change score**
Result: (0503) Urinary elimination (7).	3	Maintain at: 5 Increase to: 5	**Intervention:** (1876) Urinary catheter care (8). (0620) Urinary retention care(8). (0590) Urinary elimination management (8).		4	+1
Scale: Severely compromised (1 pt.) - Not compromised (5 pts.)					**Scale:** Severely compromised (1 pt.) - Not compromised (5 pts.)	

Indicators		Activities	M	T	N	Indicators	
Urine clarity	2	- Maintain hand hygiene.	X	X	X	Urine clarity	4
		- Place the urine collection bag below bladder level.	X	X	X		
Scale: Severe (1 pt.) - None (5 pts.)		- Properly secure the bladder catheter.	X	X	X	**Scale:** Severe (1 pt.) - None (5 pts.)	
Indicators		- Keep the urinary catheter patent.	X	X	X	**Indicators**	
Visible blood in urine	3					Visible blood in urine	4
Urinary retention	3	- Measure the input/output and urine characteristics.	X	X	X	Urinary retention	5
		- Monitor for signs and symptoms of urinary retention.	X	X	X		
		- Maintain adequate hydration.	X	X	X		

Observation or note: Initially the patient had moderately compromised urinary elimination (3 pts.), which increased to mildly compromised (4 pts.).

Table 3. Care plan No. 3.

Nursing diagnosis: (00146) Anxiety related to disease process, manifested by verbal expression, distress and worry(6).

PLANNING				IMPLEMENTATION	EVALUATION	
Results and indicators	**Baseline score** (1-5 pts.)	**Target score**	**Interventions/activities**		**Final score** (1-5 pts.)	**Change score**
Result: (1211) Anxiety level (7).	3	Maintains at: 3 Increases to: 5	**Intervention:** (5820) Anxiety reduction (8).		4	+1

Scale: Severe (1 pt.) - None (5 pts.)						**Scale:** Severe (1 pt.) - None (5 pts.)	
Indicators		**Activities**	**M**	**T**	**N**	**Indicators**	
Nervousness	4	- Create an environment that provides calmness and security for the patient.	X	X	X	Nervousness	5
Generalized anxiety	3					Generalized anxiety	4
Restlessness	3	- Provide guidance on the procedures being performed.	X	X	X	Restlessness	4
		- Offer objective information regarding diagnosis and treatment.	X	X	X		
		- Accompany the patient to promote security and reduce fear.	X	X	X		
		- Recognize changes in emotional state.	X	X	X		

Observation or note: Nursing care improved the level of anxiety from moderate (3 pts.) to mild (4 pts.).

Table 4. Care plan No. 4.

Nursing diagnosis: (00043) Ineffective protection related to surgical intervention evidenced by low serum hemoglobin (6).

PLANNING				IMPLEMENTATION			EVALUATION	
Results and indicators	**Baseline score** (1-5 pts.)	**Target score**	**Interventions/activities**				**Final score** (1-5 pts.)	**Change score**
Result: (0702) Immune status(7).	3	Maintains at: 3 Increases to: 5	**Intervention:** (6550) Infection protection (8).				4	+1
Scale: Severely compromised (1 pt.) - Not compromised (5 pts.)							**Scale:** Severely compromised (1 pt.) - Not compromised (5)	
Indicators			**Activities**	**M**	**T**	**N**	**Indicators**	
Genitourinary status	3		- Wash hands before and after nursing care.	X	X	X	Genitourinary status	4
Mucosal integrity	3		- Observe the integrity of skin and mucous membranes.	X	X	X	Mucosal integrity	4
Absolute leukocyte count	3		- Monitor the condition of the surgical wound.	X	X	X	Absolute leukocyte count	4
			- Administer antifibrinolytic as indicated.	X	X	X		
			- Interpret laboratory test results (leukocyte count and hemoglobin levels).	X	X	X		
			- Promote nutritional intake rich in iron.	X	X	X		
			- Promote patient rest.	X	X	X		

Observation or note: Patient with a moderately compromised immune status (3 pts.) improved to a mildly compromised status (4 pts.) after nursing interventions.

DISCUSSION

Regarding the first nursing diagnosis (acute pain), all interventions were implemented (100%), resulting in an 80% favorable progress. The clinical practice guide of the Daniel Alcides Carrión Public Hospital (9) indicates that postoperative pain occurs in all patients who undergo a surgical intervention and is characterized as acute pain (lasting less than six months), which disappears during the continuous healing period. On the other hand, Abella-Palacios et al. (10) mention that pain has both systemic and psychological effects on the patient, since, if not properly intervened, there is a risk of postoperative infection or delay in wound healing. Therefore, inadequate pain management affects quality of life and recovery, and increases the risk of post-surgical complications. At the same time, studies indicate that poor pain management is associated with the development of persistent chronic pain (11). In response to this, nursing care should focus on the progressive reduction of pain, by continuously assessing it and ensuring appropriate care for the surgically treated patient.

Regarding the second nursing diagnosis (urinary retention), interventions were implemented at 100%, achieving a positive result of 90%. According to a study conducted by Suaza-Martínez et al. (12), the main causes of postoperative urinary retention include detrusor hypoactivity and obstruction by blood clots. In the same way, physiological changes caused by surgery, together with local tissue damage, can affect the patient's urination and, in particular, influence the autonomic nervous system. Other researchers report that greater post-operative pelvic floor muscle strength is associated with a lower incidence of urinary incontinence (13). Therefore, nursing activities should focus on strengthening the pelvic floor.

Regarding the third nursing diagnosis (anxiety), all interventions were carried out, achieving a successful result of 100%. A study by Romanzini et al. (14), indicates that anxiety is associated with a lower level of well-being and quality of life, as well as an increase in pain and sensitivity to postoperative symptoms, which can negatively impact disease management, treatment adherence, and the recovery process. Additionally, Sancé (15) indicates that any surgical procedure generates fear and anxiety in individuals; however, it is often underestimated in clinical practice, making it a determining factor in hemodynamic stability during and after surgery. In this regard, nursing care focuses on providing a comfortable environment for the patient, dispelling their doubts about their current health situation and generating confidence to reduce fear and anxiety in the hospital setting.

Regarding the fourth nursing diagnosis (ineffective protection), all interventions were considered (100%), achieving an optimal finding of 80% favorable progress. According to reviewed studies, postoperative blood loss can be arterial and/or venous. Therefore, it is necessary to monitor continuous blood flow, compressing the catheter by traction of the balloon inflated with about 50 cc, and securing it to the leg with adhesive tape (16). On the other hand, continuous irrigation with fluids, along with the administration of tranexamic acid, helps reduce blood loss (17, 18). In this context, nursing care is crucial, as it focuses on 24-hour monitoring during the immediate postoperative period, ensuring catheter patency, preventing kinking of the urinary catheter, and avoiding external factors that may compromise the patient's health.

CONCLUSIONS

The Nursing Care Plan (NCP) is an instrument that serves as a fundamental tool for nursing care, integrating NANDA, NOC and NIC tools to provide comprehensive and scientific care to patients undergoing operative prostate surgery. Nursing professionals use it every day in clinical field.

The surgical approach in each of its stages demonstrates that the intervention of nursing professionals is necessary for identifying risks and implementing timely care activities that promote the safety, well-being, and integrity of patients undergoing this type of procedure.

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YEQ: conceptualization, research, methodology, validation, visualization, writing of original draft, writing - review & editing.

MOC: conceptualization, data curation, research, methodology, resources, validation, visualization, writing of original draft, writing - review & editing.

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