



Nursing diagnoses and NIC interventions in adult males undergoing radical prostatectomy

Diagnósticos de Enfermagem e intervenções NIC em adultos do sexo masculino que passaram por prostatectomia radical

Diagnósticos de Enfermería e intervenciones NIC en adultos del sexo masculino que pasaron por prostatectomía radical

How to cite this article:

Kocaçal E, Karadağ E. Nursing diagnoses and NIC interventions in adult males undergoing radical prostatectomy. Rev Esc Enferm USP. 2020;54:e03541. DOI: <http://dx.doi.org/10.1590/S1980-220X2018038003541>

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ABSTRACT

Objective: To determine NANDA-I nursing diagnoses and NIC nursing interventions in patients who underwent radical prostatectomy. **Method:** A cross-sectional and descriptive study was conducted in a research and teaching hospital in western Turkey between June 2016 and June 2017. The sample included adult patients diagnosed with prostate cancer in the immediate postoperative period of radical prostatectomy. Data collection was performed using Gordon's Functional Health Patterns, NANDA-International and Nursing Interventions Classification Taxonomy Systems. **Results:** Participants were 54 adult patients. The main nursing diagnoses were in the classes of "physical injury", "self-care", "hydration" and "physical comfort". Some nursing diagnoses were identified in all patients, namely: "risk for deficient fluid volume", "risk for imbalanced fluid volume", "impaired urinary elimination". The most selected NIC interventions were in the classes of "risk management", "elimination management", "coping assistance", "tissue perfusion management" and "self-care facilitation". **Conclusion:** future studies with larger populations are needed to explore the nursing diagnoses and effects of nursing interventions on patients who underwent radical prostatectomy.

DESCRIPTORS

Prostatectomy; Classification; Nursing Process; Nursing Diagnosis; Oncology Nursing.

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Received: 08/24/2018

Approved: 04/23/2019

INTRODUCTION

Nearly 1.1 million men received a diagnosis of prostate cancer (Pca) around the world in 2012. Most cases were seen in more developed countries and the highest incidence rates were found in Australia and New Zealand, North America, and Western and Northern Europe. In Turkey, an epidemiological study was carried out by the Uro-oncology Association of Turkey to determine the incidence of Pca in the Turkish population. Findings obtained from the 12 cities selected showed 6,693 cases were registered. In addition, the incidence rate of age-related Pca was ~36 per 100,000, similar to other north Mediterranean countries⁽¹⁻²⁾.

The choice of Pca treatment depends on the cancer severity, age, general health, life expectancy, as well as the patient's and the physician's preference. "In localized stages, radiotherapy or radical prostatectomy (RP) surgery, either by a conventional open approach or laparoscopy, is considered optional"⁽³⁾. Radical prostatectomy is often accompanied by bilateral pelvic lymph-node dissection and "involves removal of the entire prostate gland and resection of both seminal vesicles with sufficient surrounding tissue to obtain a negative margin"⁽⁴⁾. This approach is the most often preferred surgical treatment applied to those aged over 65 years and in cases of Pca with a 10-year life expectancy⁽⁵⁻⁶⁾.

Although RP is considered the gold standard in Pca and has a low morbidity rate when performed at a suitable stage, it can lead to complications such as bleeding, rectal injury, deep vein thrombosis, shock and pulmonary embolism in the early stages, and to anastomotic stricture, urinary incontinence and erectile dysfunction in the late stages. Therefore, maintaining quality of life (QOL) in the postoperative period by preventing complications is fundamental^(4-5,7-9).

Patients undergoing RP can have their QOL increased through comprehensive nursing based on a systematically prepared nursing process. NANDA-I nursing diagnoses (NDs) is an important classification system, and its definition is the first stage and key component of the nursing process⁽¹⁰⁻¹⁴⁾. Nursing Interventions Classification (NIC) is another classification system. It enables the determination, naming and identification of actions taken towards the preservation and improvement of individual, family and community health and all coordinated and independent interventions of nurses in accordance with the determined NDs^(11,14-15).

Scanning the literature, most studies conducted in Turkey with patients undergoing RP were focused on the frequent difficulties and complications arising in late stages. In addition, was found no study exploring both NDs and NICs together in this patient group worldwide. Thus, a systematic nursing evaluation based on a classification system with a holistic approach in the early postoperative period will prevent the omission of many problems while showing patients' difficulties. Such an evaluation will also facilitate the prevention and management of eventual complications occurring after discharge. Therefore, the aim of the study was to determine NANDA-I ND and NIC interventions in patients admitted to the urology clinic who underwent RP. The result of the study included a review of the problems of patients undergoing RP, and the identification of

priority fields in nursing care. In addition, given the importance of using a common language in nursing, these findings will form a basis for further descriptive and interventional studies on NDs and classification systems in nursing. The development of this study will also enable international comparisons regarding this topic between Turkey and other countries.

METHOD

DESIGN OF STUDY

This cross-sectional and descriptive study was conducted in the urology clinic of a research and teaching hospital in western Turkey between June 2016 and June 2017. This clinic has 29 beds and is one of the largest units in the region. Adult patients with medical diagnoses such as benign prostate hyperplasia, kidney stones, Pca and bladder cancer are treated there. Nine nurses work in the unit.

SAMPLE DEFINITION

Participants were 54 adult patients diagnosed with Pca in the immediate postoperative period (first 24-72 hours after the surgical procedure). The inclusion criteria were being in the immediate postoperative period of RP between June 2016 and June 2017, over 18 years of age, and participating in the study voluntarily. Patients under 18 years of age and those unwilling to take part in the study were excluded.

DATA COLLECTION

Data collection was carried out by physical assessment, examination of patients' records, observation, and face-to-face interview with patients. The follow-up period was four days after the surgery, determined based on a laparoscopic RP operation and the 2-4 day discharge period stated in the literature^(4,16).

A data collection form in line with a comprehensive review of literature was prepared by researchers. The form consisted of Gordon's Functional Health Patterns (FHP), sociodemographic features and postoperative assessments of patients^(4-5,10,16-17). The FHP method was developed by Marjory Gordon⁽¹⁸⁾ and is used by nurses in the nursing process for a comprehensive nursing assessment of patients. The system includes 11 categories. In addition to the FHP, the data collection form included five sociodemographic items (age, marital status, occupation, educational level, income level) and 16 items of postoperative assessments (e.g. vital signs, level of consciousness, fluid balance, capillary refill time, oxygen saturation, infusion rates, surgical site and laboratory test results).

Expert opinion (five nurse academics teaching and studying nursing taxonomy and classification systems, three nurses experienced in urology clinic, two nurses experienced in surgical ward) was received for content validity assessment. The content was approved based on expert judges' suggestions. A pilot study with a 3-day interval was also conducted with 12 patients who underwent RP surgery in the urology unit for assessment of the form reliability, but these patients were excluded from the main study. *Cronbach's alpha for the pilot study* was 0.924 ($p=0.002$).

The NDs were determined using the English⁽¹³⁾ and Turkish⁽¹⁹⁾ versions of NANDA-I 2015-2017 nursing diagnoses. The taxonomy II ND system is based on Gordon's FHP and includes 13 domains and 47 classes. In this sense, our data collection form consisting of the FHP and socio-demographic and postoperative data, included all diagnostic clues (defining characteristics and risk factors) for the judgement of nursing diagnoses. Nursing interventions based on the NDs were identified according to the taxonomy of both English⁽¹¹⁾ and Turkish⁽²⁰⁾ versions of the Nursing Interventions Classification reference book (Iowa University). The NIC taxonomy structure consists of seven domains (physiological, basic; physiological, complex; behavioural; safety; family; health system and community), 30 classes and 565 nursing interventions.

Standardized nursing languages were not already a part of the nursing care at the urology unit where the study was conducted. On the other hand, in Turkey, classification systems, especially the nursing process and NANDA-I NDs, are well-known among nurse academics and students. They have been taught in nursing students' training and used during their internship programs since the beginning of year 2000. NANDA-I NDs and NICs are planned to be used by nurses in all Turkish hospitals in a near future. Some nursing law regulations indicate their use in nursing processes will be mandatory for nursing care.

After collecting data from patients, each researcher independently selected the NDs and applicable NIC interventions based on the NDs identified. Researchers used the defining characteristics, related factors and risk factors in the data collection form as guidance to decide a nursing diagnosis. In line with the literature, they considered the presence of at least one major defining characteristic and related factor for deciding an actual nursing diagnosis independently. For the decision of risk diagnoses, researchers considered the presence of risk factors⁽¹³⁾. The Cohen's kappa (κ) test was used to determine the consistency between two researchers. In the final phase, authors reached a consensus on NDs and NIC interventions. The first author has publications on ND, and the second author teaches in the Oncology Nursing specialisation course. Both authors have PhDs in nursing and are experienced in the field of nursing terminology.

DATA ANALYSIS AND TREATMENT

Numerical and percentage distributions of patients' descriptive characteristics, NDs and NIC nursing interventions are presented in table form. Agreement between the two researchers on NDs and interventions was determined by using percentages.

ETHICAL ASPECTS

Ethical approval (opinion number 2016/21-36, protocol number 2772-GOA) was obtained from the Research Ethics Committee of the Faculty of Nursing and from the participating hospital. Participants provided their written informed consent.

RESULTS

The mean age of patients ($n=54$) was 59.12 ± 6.47 years (min-max=43-75), 66.7% were married and 38.9% were high school graduates. Half of patients were retired and 79.6% had social security insurance (Table 1).

The mean length of hospital stay was 3.38 ± 0.97 days (min-max= 2-5). Antibiotics, antiemetics and analgesic drugs were given to all patients for prophylaxis after the early postoperative period, 20.4% of patients had food allergies, 46.3% reported nausea, and 63% reported dysuria. All patients had a urinary catheter. The mean sleep duration was 5.70 ± 1.46 hours/day (min-max = 3-8). Pain was reported by 74.1% of patients, and the mean pain score was 3.62 ± 2.24 (min-max = 0-8). Also, 22.2% of patients reported feeling nervous and anxious about the prognosis, and 25.9 % were reluctant to communicate with the staff.

Table 1 – Distribution of men who underwent radical prostatectomy according to age, marital status, education, employment status and social security – İzmir, Turkey, 2016-2017.

Demographic Variables	n	%
Age groups (years)		
43-53 years	9	16.7
54-64 years	35	64.8
65-75 years	10	18.5
Marital status		
Single	18	33.3
Married	36	66.7
Education		
Primary school level	20	37
High school level	21	38.9
University level	13	24.1
Employment status		
Pensioner	27	50
Civil servant	7	13
Employee	8	14.8
Self-employed	12	22.2
Social-security		
Social security insurance	43	79.6
Self-employed insurance	11	20.4
Total	54	100

The mean body mass index of patients was 25.70 ± 1.92 (min-max= 21.40-29.75). Hyperthermia was observed in seven patients (13%) in the first postoperative day, and early postoperative hypothermia was seen in three patients. Tibial oedema was detected in 20.4% of patients and slight pitting oedema (2 mm depth) was present in ten patients. A high blood glucose level was found in 33.3% of patients. The level of prostate-specific antigen (PSA) was over 4 ng/ml in 79.4% of patients.

The two researchers identified independently 87.6% agreement between NDs and 81.7% consistency between the interventions. A total of 1135 NDs were determined. Sixty-seven different NDs were identified in patients with RP.

Nine different NDs were in the class of coping responses, six in physical injury and self-concept, five in self-esteem, and four in hydration and self-care (Table 2).

In patients, were used 22 out of the 30 NIC classes. Thirteen different interventions selected were in the class of coping assistance, ten were in the class of risk management, eight were in the class of elimination management and in the class of nutrition support, and seven in the class of patient education (Table 3).

Table 2 – Distribution of nursing diagnoses of patients – İzmir, Turkey, 2016-2017.

Domain	Class	Code	Nursing diagnoses	n	%
Health promotion	Health management	00099	Ineffective health management	15	27.8
Nutrition	Ingestion	00233	Overweight	15	27.8
		00234	Risk for overweight	7	13.0
	Metabolism	00179	Risk for unstable blood glucose level	18	33.3
		00195	Risk for electrolyte imbalance	5	9.3
	Hydration	00025	Excess fluid volume	11	20.4
Activity	Sleep/rest	00198	Disturbed sleep pattern	28	51.9
	Cardiovascular/ pulmonary responses	00239	Risk for impaired cardiovascular function	12	22.2
		00108	Bathing self-care deficit	41	75.9
	Self-care	00109	Dressing self-care deficit	39	72.2
		00102	Feeding self-care deficit	26	48.1
		Cognition	00126	Deficient knowledge	37
Self- Perception	Self-concept	00124	Hopelessness	6	11.1
Coping/stress tolerance	Coping responses	00146	Anxiety	9	16.7
		00069	Ineffective coping	9	16.7
		00148	Fear	9	16.7
		00241	Impaired mood regulation	5	9.3
		00125	Powerlessness	7	13.0
Safety/Protection	Physical injury	00155	Risk for falls	25	46.3
	Environmental hazards	00246	Risk for delayed surgical recovery	12	22.2
		00217	Risk for allergy response	11	20.4
	Thermoregulation	00007	Hyperthermia	7	13.0
		00008	Ineffective thermoregulation	10	18.5
Comfort	Physical comfort	00134	Nausea	25	74.1
		00132	Acute pain	40	74.1

Note: (n=54).

Table 3 – Selected NIC interventions for the patients – İzmir, Turkey, 2016-2017.

Domain /Class	Class	Code	NIC Interventions (code)	n	%	
1. Physiological: Basic	A. Activity and Exercise Management	0180	Energy management	12	22.2	
		0200	Exercise promotion	25	46.3	
		0224	Exercise therapy: joint mobility	19	35.2	
	D. Nutrition Support	1020	Diet staging	12	22.2	
		1050	Feeding	26	48.1	
		1100	Nutrition management	17	31.5	
		5246	Nutritional counselling	19	35.2	
		1260	Weight management	20	37.0	
		1280	Weight reduction assistance	18	33.3	
	E. Physical Comfort Promotion	1400	Pain management	25	46.3	
	F. Self-care Facilitation	1610	Bathing	41	75.9	
	2. Physiological: Complex	H. Drug Management	2300	Medication administration	31	57.4
		J. Perioperative Care	2210	Analgesic administration	36	66.7
1450			Nausea management	25	46.3	
M. Thermoregulation		1380	Heat/cold application	22	40.7	
3. Behavioural	O. Behaviour Therapy	4350	Behaviour management	19	35.2	
		4360	Behaviour modification	19	35.2	
	Q. Communication Enhancement	4978	Communication enhancement: visual deficit	13	24.1	
		5230	Coping enhancement	27	50.0	
	R. Coping Assistance	5820	Anxiety reduction	26	48.1	
		5250	Decision-making support	26	48.1	
		5330	Mood management	18	33.3	
		5380	Security enhancement	19	35.2	
		5390	Self-awareness enhancement	26	48.1	
		5395	Self-efficacy enhancement	36	66.7	
		5440	Support system enhancement	17	31.5	
		S. Patient Education	5602	Teaching: disease process	27	50.0
			5606	Teaching: Individual	19	35.2
	5614		Teaching: prescribed diet	21	38.9	
	5616		Teaching: prescribed medication	22	40.7	
	5618		Teaching: procedure/treatment	18	33.3	
	T. Psychological Comfort Promotion	1460	Progressive muscle relaxation	27	50.0	
4. Safety	V. Risk Management	4020	Bleeding reduction	24	44.4	
6. Health System	Y. Health System Mediation	7040	Caregiver support	22	40.7	
		7370	Discharge planning	19	35.2	
	7400	Health system guidance	15	27.8		

Note: (n=54).

The NDs identified for all patients are shown in Table 4.

The NIC interventions identified for all patients are shown in Table 5.

Table 4 – Nursing diagnoses identified in all patients – İzmir, Turkey, 2016-2017.

Domain	Class	Code	Nursing Diagnoses
Nutrition	Hydration	00028	Risk for deficient fluid volume
		00025	Risk for imbalanced fluid volume
Elimination and Exchange	Urinary function	00016	Impaired urinary elimination
Activity/Rest	Self-care	00110	Toileting self-care deficit
Sexuality	Sexual function	00065	Ineffective sexuality pattern
Life principles	Value/belief/action congruence	00184	Readiness for enhanced decision making
Safety/protection	Infection	00004	Risk for infection
	Physical injury	00206	Risk for bleeding
		00047	Risk for impaired skin integrity
	Thermoregulation	00005	Risk for imbalanced body temperature
Comfort	Environmental comfort	00214	Impaired comfort

Table 5 – NIC interventions identified for all patients – İzmir, Turkey, 2016-2017.

Domain	Class	Code	NIC interventions
1. Physiological: basic	B. Elimination management	0550	Bladder irrigation
		1876	Tube care: urinary
		0570	Urinary bladder training
		0600	Urinary habit training
		0560	Pelvic muscle exercise
		0580	Urinary catheterization
		0590	Urinary elimination management
	D. Nutrition support	1120	Nutrition therapy
		1160	Nutritional monitoring
	E. Physical comfort promotion	6482	Environmental management: comfort
	F. Self-care facilitation	1710	Oral health maintenance
		1720	Oral health promotion
		1730	Oral health restoration
		1804	Self-care assistance/toileting
1850		Sleep enhancement	
1750		Perineal care	
2. Physiological: complex	G. Electrolyte and acid-base management	2020	Electrolyte monitoring
		2080	Fluid/electrolyte management
	H. Drug management	2380	Medication management
	J. Perioperative care	3902	Temperature regulation: perioperative
	L. Skin/wound management	3440	Incision site care
	M. Thermoregulation	3900	Temperature regulation
	N. Tissue perfusion management	4010	Bleeding precautions
		4190	Intravenous (IV) insertion
		4200	Intravenous therapy
4130		Fluid monitoring	
4140		Fluid resuscitation	
3. Behavioural	O. Behaviour therapy	4470	Self- modification assistance
	Q. Communication enhancement	4920	Active listening
	R. Coping assistance	5248	Sexual counselling
		5240	Counselling
S. Patient education	5612	Teaching: prescribed exercise	
4. Safety	V. Risk management	6550	Infection protection
		6574	Patient identification
		6610	Risk identification
		6650	Surveillance
		6680	Vital signs monitoring
Y. Health system mediation	7460	Patient rights protection	
5. Family	X. Lifespan care	7110	Family involvement promotion
6. Health system	a. Health system management	7610	Point of care testing
	b. Information management	7920	Documentation

DISCUSSION

In this study, we determined the NDs seen in the early postoperative period of patients undergoing RP, and the appropriate NIC interventions before discharge in the light of these NDs.

The vascular nature of the surgical site, postoperative haemorrhage, restricted fluid intake before surgery, and post-obstructive diuresis may lead to fluids and electrolyte imbalance⁽⁴⁾. Accordingly, the NDs Risk for deficient fluid volume and Risk for imbalanced fluid volume were present in all patients in the current study. In a study aimed at identifying the defining characteristics and related or risk factors regarding the NDs present in men undergoing prostatectomy, the ND Risk for deficient fluid volume was determined in 94% (n=50) of patients⁽²¹⁾. This finding is consistent with our study.

Mechanical obstruction due to blood clots, oedema, trauma and surgical procedure, pressure and irritation of the catheter or balloon, and loss of bladder tone may be related to the ND Impaired urinary elimination, which was found in all patients in our study⁽⁴⁻⁵⁾.

Patients who had prostate surgery like RP are at risk of haemorrhage and infection such as urinary tract infection⁽⁴⁻⁵⁾. Thus, the NDs Risk for infection and Risk for bleeding were detected in all patients in our study. In parallel with our findings, the ND Risk for infection was found in all patients (n=50) in another study⁽²¹⁾. In addition to this ND, Risk for impaired skin integrity was determined in all patients in our study. This may be caused by invasive procedures, traumatized tissue or surgical incision.

Patients need to know about what they are expected to do in the recovery process, possible complications and what may be effective in dealing with these problems. In the current study, the ND Deficient knowledge was identified in nearly 70% of patients. Deficient knowledge was determined in 20% (n=50) of patients in a study⁽²¹⁾, and findings of another study carried out with patients undergoing urological surgery⁽²²⁾ demonstrated the presence of this ND in 61% of patients. This difference in proportion of Deficient knowledge might be associated with information previously given to patients in the other study⁽²¹⁾, different clinical procedures, and different levels of awareness of Pca and its treatment.

Pain in the postoperative period is a possible outcome after RP, impairs organs functions, delays mobilization, and increases the risk of postoperative complications⁽²³⁾. Accordingly, we found that nearly 75% of individuals had the ND Acute pain especially in the first day of surgery. Similarly, Acute pain was present in 36% (n=50) of men in another study⁽²¹⁾.

The main negative outcomes of RP are complications such as urinary incontinence and erectile dysfunction in the medium and late postoperative periods after discharge, which significantly affect the QOL^(4-5,24-25). Recent studies have reported the occurrence of urinary incontinence in around 70% of patients and erectile dysfunction in 68% of patients^(3,6,24). Because our main purpose was to identify the NDs of patients with RP in the immediate postoperative

stage, urinary incontinence (also, all patients had urinary catheters) and sexual dysfunction could not be determined. However, the ND Deficient knowledge and the related NIC interventions proposed by researchers such as "Sexual counselling", "Bladder irrigation", "Urinary elimination management" and "Pelvic muscle exercise" were addressed given the possibility of occurrence of these postoperative complications.

In the early postoperative period, patients should be given essential information about care of the operation site, signs and prevention of bleeding and infection, pain management, management of a permanent urinary catheter at home, and the coping with physical side-effects, such as incontinence and erectile dysfunction. If the patient has family or a partner, these should be included in the education^(4-7,24-28). As a result of the study, we determined that in accordance with this information and the NDs established, the following NIC interventions were appropriate for all patients: "Active listening", "Counseling", "Infection protection", "Medication management", "Pelvic muscle exercise", "Self-modification assistance", and "Tube care: urinary".

The following NIC interventions were the most determined for patients: "Vital signs monitoring", "Bathing", "Analgesic administration", "Medication administration", "Coping enhancement", "Anxiety reduction", "Decision-making support", "Teaching: disease process" and "Feeding". In a study with patients who underwent RP (n=121), researchers⁽²⁹⁾ identified educational nursing interventions for drug administration and various non-pharmacological interventions namely: emptying the urine bag and measuring the amount of urine in all patients; vital signs evaluation in 99.2%; bathing in 98.3%; and urinary catheter management in 16% of patients about to be discharged. These findings are in line with our study. In the results of that study, were determined various interventions such as, dressing for drain, maintenance of continuous irrigation of PVC, and performing venous puncture. This difference in various interventions may be related to the inclusion of both patients with a diagnosis of Pca and those with benign prostatic hyperplasia, and surgical cases of both partial and total prostatectomy.

Since patients' self-care activities may be restricted in the postoperative period, other important nursing interventions recommended in this study were "Self-care assistance" and "Bathing". In the early postoperative period, many patients are unable to perform self-care activities and need help. "Bathing" was deemed appropriate for patients included in the study, and is an intervention applied to provide patients' comfort and to relieve or remove pain and sleep problems. In another study with similar findings to ours, the intervention "Bathing" was identified for most (98.3%) patients⁽²⁹⁾.

As this study was carried out in a single centre and the sample size was small, the findings cannot be generalized to all patients undergoing RP. Nonetheless, the results contribute to the limited previous studies with a similar aim and provide a new insight into the value of nursing care for patients with RP for urology nurses in Turkey.

CONCLUSION

This study highlighted the significance of using standardized nursing languages in Turkey. The main NDs demonstrated in our study were in the classes of physical injury, self-care, hydration and physical comfort. In parallel with the NANDA-I NDs identified, the most selected NIC interventions were in the classes of risk management, elimination management, coping assistance, tissue perfusion management and self-care facilitation.

Multicentre studies with larger populations are needed. Additionally, future studies are needed to explore the relationships between NANDA-I NDs and the effects of NIC interventions on these patients.

One of the main concerns is that patients need emotional support and information on their lives after discharge,

because the length of hospital stay has decreased recently due to the higher number of RP cases treated with a laparoscopic approach. Comprehensive and individualized nursing care empowered with a holistic and collaborative approach is a key element for coping with post-discharge issues and helps patients affected by physical and *psychosocial* changes to plan their new life goals, which will lead to men's higher QOL. The partner or spouse of the patient should also be integrated in discharge planning and education to achieve the best outcomes. Follow-up after discharge reduces readmission. Nursing care should be guided by a standardized and systematic approach. In this sense, use of a common language such as NANDA-I NDs and NIC interventions facilitates visible and objective care among nurses. This also ensures permanent communication between nursing professionals.

RESUMO

Objetivo: Determinar os diagnósticos de enfermagem da NANDA-I e as intervenções de enfermagem (NIC) em pacientes que passaram por prostatectomia radical. **Método:** um estudo transversal e descritivo foi realizado em um hospital universitário e de pesquisa na Turquia ocidental entre junho de 2016 e junho de 2017. A amostra incluiu pacientes adultos diagnosticados com câncer de próstata no período pós-operatório imediato da prostatectomia radical. A coleta de dados foi realizada usando os padrões funcionais de saúde de Marjory Gordon, NANDA-Internacional e os sistemas de taxonomia para a classificação das intervenções de enfermagem. **Resultados:** Participaram 54 pacientes adultos. Os principais diagnósticos de enfermagem foram nas classes de “lesão física”, “autocuidado”, “hidratação” e “conforto físico”. Alguns diagnósticos de enfermagem foram identificados em todos os pacientes, especificamente: “risco para volume de líquidos deficiente”, “risco para volume de líquidos desequilibrado”, “eliminação urinária prejudicada”. As intervenções (NIC) mais selecionadas foram nas classes de “manejo de riscos”, “manejo da eliminação”, “assistência de cobertura”, “manejo da perfusão tecidual” e “facilitação do autocuidado”. **Conclusão:** estudos futuros com populações maiores são necessários para explorar os diagnósticos de enfermagem e os efeitos das intervenções de enfermagem em pacientes que passaram por prostatectomia radical.

DESCRITORES

Prostatectomia; Processos de Enfermagem; Diagnóstico de Enfermagem; Classificação; Enfermagem Oncológica.

RESUMEN

Objetivo: Determinar los diagnósticos de enfermería de la NANDA-I y las intervenciones de enfermería (NIC) en pacientes que pasaron por prostatectomía radical. **Método:** Un estudio transversal y descriptivo fue realizado en un hospital universitario y de investigación en Turquía occidental entre junio de 2016 y junio de 2017. La muestra incluyó a pacientes adultos diagnosticados con cáncer de próstata en el período posoperatorio inmediato de la prostatectomía radical. La recolección de los datos se llevó a cabo utilizándose los patrones funcionales del paciente de Marjory Gordon, NANDA Internacional y los sistemas de taxonomía para la clasificación de las intervenciones enfermeras. **Resultados:** Participaron 54 pacientes adultos. Los principales diagnósticos de enfermería fueron en las clases de “daño físico”, “autocuidado”, “hidratación” y “comodidad física”. Algunos diagnósticos enfermeros fueron identificados en todos los pacientes, específicamente: “riesgo para volumen de líquidos deficiente”, “riesgo para volumen de líquidos desequilibrado”, “eliminación urinaria perjudicada”. Las intervenciones (NIC) más seleccionados fueron en las clases de “manejo de riesgos”, “manejo de la eliminación”, “asistencia de cobertura”, “manejo de la perfusión tisular” y “facilitación del autocuidado”. **Conclusión:** Estudios futuros con poblaciones más grandes son necesarios para explorar los diagnósticos de enfermería y los efectos de las intervenciones enfermeras en pacientes que pasaron por prostatectomía radical.

DESCRIPTORES

Prostatectomía; Proceso de Enfermería; Diagnóstico de Enfermería; Clasificación; Enfermería Oncológica.

REFERENCES

1. Kim CS, Lee JY, Chung BH, Kim WJ, Fai NC, Hakim L, et al. Report of the second Asian Prostate Cancer (A-CaP) Study Meeting. *Prostate Int*. 2017;5(3):95-103.
2. Zorlu F, Divrik RT, Eser S, Yorukoğlu K. Prostate cancer incidence in Turkey: an epidemiological study. *Asian Pac J Cancer Prev*. 2014;15(21):9125-30.
3. Lombrana M, Izquierdo L, Gomez A, Alcaraz A. Nursing Care Program for Erectile Dysfunction After Radical Prostatectomy. *Clin J Oncol Nurs*. 2012;16(5):E178-E82.
4. Ignatavicius DD, Workman ML, editors. *Medical-surgical nursing patient-centered collaborative care*. New York: Elsevier; 2013.
5. Lemone P, Burke K, Bauldoff G, editors. *Medical-surgical nursing critical thinking in patient care*. London: Pearson; 2011.
6. King AJL, Evans M, Moore THM, Paterson C, Sharp D, Persad R, et al. Prostate cancer and supportive care: a systematic review and qualitative synthesis of men's experiences and unmet needs. *Eur J Cancer Care (Engl)*. 2015;24(5):618-34. DOI: 10.1111/ecc.12286
7. Mata LRF, Napoleão AA. Nursing interventions for patients discharged from prostatectomy: an integrative review. *Acta Paul Enferm*. 2010;23(4):574-9.
8. Moore KN, Estey A. The early post-operative concerns of men after radical prostatectomy. *J Adv Nurs*. 1999;29(5):1121-9.

9. Şimşir A, Temeltaş G. Radikal retropubik prostatektomi sonrası gelişen idrar kaçırmada çözüm yolları. *Üroonkoloji Bulteni*. 2011;2:108-11.
10. Birol L, editor. *Hemşirelik süreci: hemşirelik bakımında sistematik yaklaşımlar*. İstanbul: Etki Yayınları; 2010.
11. Bluchek G, Butcher H, Dochterman J, Wagner C, editors. *Nursing interventions classification (NIC)*. St Louis: Mosby; 2012.
12. Cordova P, Lucero R, Hyun S, Quinlan P, Price K, Stone P. Using the nursing interventions classification as a potential measure of nurse workload. *J Nurs Care Qual*. 2010; 25(1):39-45.
13. Herdman TH, Kamitsuru S, editors. *NANDA International nursing diagnoses: definitions and classification 2015-2017*. Oxford: Wiley-Blackwell; 2014.
14. Johnson M, Moorhead S, Bulechek G, Butcher H, Maas M, Swanson E, editors. *NOC and NIC linkages to NANDA-I and clinical conditions supporting critical reasoning and quality care*. Oxford: Elsevier; 2012.
15. Scherb C, Weydt A. Work complexity assessment, nursing interventions classification, and nursing outcomes classification: making connections. *Creat Nurs*. 2009;15(1):16-22.
16. Kelly M, Sharp L, Dwane F, Kelleher T, Drummond FJ, Comber H. Factors predicting hospital length- of -stay after radical prostatectomy: a population-based study. *BMC Health Serv Res*. 2013;13:244.
17. Weber JR, Kelley JH, editors. *Health assessment in nursing*. Lippincott: Williams and Wilkins; 2014.
18. Gordon M. *Nursing diagnosis: process and application*. St. Louis: Mosby; 1994.
19. Acaroğlu K, Kaya H, editors. *NANDA hemşirelik tanıları: tanımlar& sınıflandırma 2015-2017*. İstanbul: Nobel Tıp Kitabevleri; 2017.
20. Erdemir F, Kav S, Yılmaz AA. *Hemşirelik girişimleri sınıflaması (NIC)*. İstanbul: Nobel Tıp Kitabevleri; 2017.
21. Saldanha EA, Medeiros AB, Frazão CM, da Silva VM, Lopes MV, Lira AL. Nursing diagnoses in patients undergoing prostatectomy: identification of the significance of its component. *Rev Bras Enferm*. 2014;67(3):430-7.
22. Lima WC, Nunes SFL, Alvarez AM, Valcarenghi RV, Bezerra MLR. Principais diagnósticos de enfermagem em idosos hospitalizados submetidos às cirurgias urológicas *Rev Rene*. 2015;16(1):72-80.
23. Heikkinen K, Salanterä S, Kettu M, Taittonen M. Prostatectomy patients' postoperative pain assessment in the recovery room. *J Adv Nurs*. 2005;52(6):592-600.
24. Eduardo AHA, Napoleão AA, Carvalho EC. Nursing interventions for patients with erectile dysfunction after radical prostatectomy: Integrative review. *Emferm Glob*. 2016;15(2):456-71.
25. Kong E, Deatrick JA, Bradway CK. Men's experiences after prostatectomy: a meta-synthesis. *Int J Nurs Stud*. 2017;74:162-71.
26. Cockle-Hearne J, Charnay-Sonnek F, Denis L, Fairbanks HE, Kelly D, Kav S, et al. Faithfull S. The impact of supportive nursing care on the needs of men with prostate cancer: a study across seven European countries. *Br J Cancer*. 2013;109(8):2121-30.
27. Mata LRF, Silva AC, Pereira MG, Carvalho EC. Telephone follow-up of patients after radical prostatectomy: a systematic review. *Rev Latino Am Enfermagem*. 2014;22(2):337-45.
28. Rego BFM, Lima CAF, Fernandes MICD, Saldanha EA, Lira ALBC, Vitor AF. Educational steps adopted in post-operative period of prostatectomy: an integrative review. *J Nurs UFPE on line*. 2014;8(Suppl. 3):4122-30.
29. Mata LRF, Ferreira TC, Carvalho EC. Nursing actions in the perioperative period and in preparing prostatectomy patients for discharge. *Invest Educ Enferm*. 2013;31(3):406-13.

