SELF-ESTEEM AND SEXUAL SATISFACTION AFTER SURGICAL COMPLICATIONS OF RADICAL PROSTATECTOMY

Autoestima e satisfação sexual após complicações cirúrgicas da prostatectomia radical

Autoestima y satisfacción sexual tras complicaciones quirúrgicas de la prostatectomía radical

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ABSTRACT: Objective: To compare the measurements of self-esteem and sexual satisfaction according to the presence of erectile dysfunction (ED) and urinary incontinence (UI) in patients submitted to radical prostatectomy (RP), in the five first postoperative years. **Method:** Cross-sectional study with a descriptive analysis of 81 patients submitted to RP. **Results:** Mean age was 65.5 years. Most patients (85.2%) sought urology care while being asymptomatic, and 76.6% had high-risk tumors. A considerable number of patients reported arterial hypertension (53.1%). After surgery, patients presented with ED (90.1%) and UI (33.3%). A majority of patients (70.4%) had zero to poor performance. A worse self-esteem score was observed (p=0.0190), as well as worse sexual performance (p<0.001) among patients with ED. **Conclusion:** The possible after affects of RP may change sexuality and, consequently, have an impact on self-esteem.

Keywords: Prostatectomy. Erectile dysfunction. Urinary incontinence. Self concept.

RESUMO: Objetivo: Comparar as medidas de autoestima e de satisfação sexual segundo a presença de disfunção erétil (DE) e incontinência urinária (IU) em pacientes submetidos à prostatectomia radical (PR), nos primeiros cinco anos do pós-operatório. **Método:** Estudo transversal, com análise descritiva de 81 pacientes submetidos à PR. **Resultados:** A média etária foi de 65,5 anos. A maioria dos pacientes (85,2%) procurou a urologia assintomáticos e 76,6% possuíam tumores localizados de alto risco. Um número considerável referiu hipertensão arterial (53,1%). Após a cirurgia, os pacientes apresentaram DE (90,1%) e IU (33,3%). A maioria (70,4%) tinha desempenho de nulo a ruim. Foi observado pior escore de autoestima (p=0,019) e pior desempenho sexual (p<0,001) em pacientes com DE. **Conclusão:** As possíveis sequelas da PR podem alterar a sexualidade e consequentemente impactar a autoestima.

Palavras-chave: Prostatectomia. Disfunção erétil. Incontinência urinária. Autoimagem.

RESUMEN: Objetivo: Comparar las medidas de autoestima y de satisfacción sexual según la presencia de disfunción eréctil (DE) e incontinencia urinaria (IU) en pacientes sometidos a la prostatectomía radical (PR), en los primeros cinco años del pos-operatorio. **Método:** Estudio transversal, con análisis descriptiva de 81 pacientes sometidos a la PR. **Resultados:** El promedio de edad fue de 65,5 años. La mayoría de los pacientes (85,2%) buscó la urología asintomática y un 76,6% poseían tumores localizados de alto riesgo. Un número considerable refirió hipertensión arterial (53,1%). Tras la cirugía, los pacientes presentaron DE (90,1%) e IU (33,3%). La mayoría (70,4%) tenía desempeño de nulo a malo. Fue observado peor escore de autoestima (p=0,019) y peor desempeño sexual (p<0,001) en pacientes con DE. **Conclusión:** Las posibles secuelas de la PR pueden alterar la sexualidad y consecuentemente impactar la autoestima.

Palabras clave: Prostatectomía. Disfunción eréctil. Incontinencia urinaria. Autoimagen.

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INTRODUCTION

Currently, cancer is one of the main causes of death around the world and considered as a public health issue in developed and developing countries. The World Health Organization (WHO) has estimated that 27 million incident cases of cancer are expected in 2030, as well as 17 million deaths by cancer and 75 million people living with cancer a year. The last global estimation indicated prostate cancer (PC) as the second most common type of cancer among men, with about 1.1 million new cases in Brazil in 2012[1].

In Brazil, the estimation for 2016, also valid for 2017, reinforces the magnitude of the problem. Approximately 596,000 new cases are expected, 61,200 being PC, which is still the second most common neoplasm among men. The increasing life expectancy, evolution of diagnostic methods and improved quality of information systems in the country may explain the increasing incidence rates throughout the years[2]. This means that it is not about an increase in the number of occurrences of the illness, but the refined ability to diagnose the disease and greater concern of the population regarding their health.

Findings in clinical examinations, combined with the result of the serum dosage of PSA (Prostatic Specific Antigen), may suggest the existence of the disease. In suspicious cases, prostate biopsy is indicated with an anatomopathological report to provide the histological Gleason grading system. The goal is to identify the probable tumor growth rate and its tendency to disseminate in addition to helping to define the best treatment for the patient[3].

PC is a heterogeneous disease with different behavioral aspects. Therefore, it defines subgroups with high risk of recurrence after local treatment. In order to simplify data interpretation before treatment, and also to define the most appropriate strategy for each patient, D'Amico proposed the stratification of risk groups in three categories (low, intermediate, high), using PSA values for diagnosis in addition to the histological Gleason grading system and clinical staging[4].

Patients with PC must be treated in accordance with the stage of the disease, as such, radical prostatectomy (RP) is considered the gold standard for PC treatment in cases of tumors restricted to the prostate for its excellent survival rates[4].

All therapy modalities present significant risks and side effects, causing a negative impact on the quality of life (QoL) of patients. In the case of RP, the main complications are related with urethral stenosis, urinary incontinence (UI) and erectile dysfunction (ED). Studies indicate the last two as the main factors affecting QoL after RP[3].

Behavioral changes may have a decisive influence on QoL, the evolution of the disease and the prognosis. It is essential that the diagnosis be associated with a psychodiagnostic test for proper treatment, also in regard to the acceptance of the disease and understanding how to manage feelings that appear in this moment[3].

RP and the possibility of after effects increase and facilitate the onset of fear related with impotence, loss and death. Early detection and treatment must consider the emotional aspects involved since they lead to the appearance of sexual conflicts, and constitute a threat to the male integrity and identity[3].

The feeling of impotence causes repercussions in the lives of patients with PC. Although there has been progress in terms of possible treatments, since this organ affects male sexual sensitivity, the feeling of impotence is present even for those experiencing transient impotence. Depression and emotional changes affect sexuality, which changes the physiology of the erection. An erectile dysfunction may anticipate failure and produce or increase anxiety[5].

It is widely known that urogenital tumors lead to additional implications, especially for men. Besides the important emotional consequences caused by issues related to cure and death, it is common that both the diagnosis and the treatment involve loss of masculinity, lower self-esteem (SE), confrontation with life changes, body image, personal relationships and suffering, which affect physical and the emotional well-being, compromising QoL overall[5].

In this sense, the male population with cancer needs attention. The role of the nurse in health promotion and in the rehabilitation of post-radical prostatectomy patients is essential, since nervous lesions resulting from this type of procedure may lead to erectile dysfunctions and urinary incontinence. The nurse should conduct meticulous observation searching for strategies that fulfill the health needs of these men, providing assistance towards at a better QoL.

Confronting the effects of diagnosis and surgical treatment and understanding the profile of patients to create a care plan becomes essential. This also raises the following question: Do the main surgical complications of RP, ED, and UI interfere in self-esteem and sexual satisfaction of postoperative patients?

OBJECTIVE

To compare the measurements of self-esteem and sexual satisfaction according to the presence of ED and UI in the first five postoperative years, in patients with PC submitted to RP.

METHODS

This is an observational, descriptive, and correlational cross-sectional study. The population participating in the study consisted of 187 patients submitted to RP from September 2006 to September 2011, in a hospital specialized in oncology.

Eighty-one patients who met the following inclusion criteria participated in the study: living in Uberaba (MG); diagnosed with localized or locally advanced prostate cancer; undergone radical retropubic prostatectomy with or without lymphadenectomy; presenting the cognitive conditions to understand the questions; and having had surgery for a period of at least three months. Exclusion criteria were: psychiatric diagnosis or taking medication with effects on the central nervous system; having been submitted to rescue RP, or participation in adjuvant therapy, without any information about the clinical staging of the tumor in the medical records.

Before data collection, a pilot test was conducted, without replacement. We obtained the list of patients from the hospital's medical file who were included in the selected period. Using simple randomness, five individuals were selected. Data collection began after the test was concluded. Researchers invited the patients by phone to attend the service at a specific date and time to apply the instruments. In this situation, they understood the objectives and the importance of the study, the right to not participate, without any damage to the treatment, anonymity, secrecy and privacy.

The first part of data collection was conducted in a previously booked outpatient clinic at the hospital outside the working hours of the routine outpatient rooms. This strategy aimed to ensure privacy and a greater return of patients in a timely manner. A male health professional, responsible for the clinical follow-up of the patient, performed the questionnaires. The questions were asked in a single, private meeting after the patients read and signed the Informed Consent Form.

The second part of collection was conducted through the hospital's medical files, by consulting the medical charts in order to obtain information about the clinical and surgical history of the patients.

The sociodemographic and clinical-surgical variables analyzed were: date of birth (day, month and year); presence of arterial hypertension (AH), diabetes mellitus (DM), and heart disease; and date of surgery and risk classification according to D'Amico. The following instruments were used to obtain scores of ED, UI, SE and sexual performance: International Index of Erectile Function (IIEF-5), International Consultation on Incontinence Questionnaire – Short Form (ICIQ-SF), Rosenberg Self Esteem Scale (EAR) and Male Sexual Quotient (M - SQ).

IIEF-5 has 15 items, and was translated to Portuguese and validated as a self-applicable scale to assess sexual function. IIEF-5 is psychometrically valid and easy to apply in clinical studies. Five factors are identified: erectile function, orgasmic function, sexual desire, satisfaction in sexual intercourse, and global satisfaction. According to the responses, erectile dysfunction can be classified from severe to absent[6].

The ICIQ-SF, also validated and translated into Portuguese, presents psychometric properties such as validity, reliability, and responsivity to both sexes. It comprises 6 questions, and the final score (0 to 21) is the sum of the scores in questions 3, 4 and 5. In this study, the two first questions were ruled out. We maintained the three questions composing the score, and the last question, which is descriptive. All men whose sum was higher than three were considered incontinent[7].

The SE scale elaborated by Rosenberg (1965) is a unidimensional instrument that assesses personal self-esteem. It is a four-point Likert scale (strongly agree, agree, disagree, strongly disagree), translated into Portuguese, adapted and validated for the Brazilian cultural context. The score ranges from 0 to 30, and low SE is indicated by high values[8].

The Male Sexual Quotient (M-SQ) is a questionnaire elaborated and validated by Abdo[9], contemplating physical and emotional components of sexual function. Its results suggest that the total score obtained may clearly distinguish individuals with and without sexual dysfunction. The response options range from never (zero) to always (five), and performance can go from null to excellent[9].

A spreadsheet was built to store data, using the software Microsoft® Office Excel® 2007 (Microsoft Corporation,

Redmond, Washington, The United States). The data collected were typed in double input in order to verify the consistency and consolidation. The data stored and validated in the software Microsoft® Office Excel® 2007 were imported into the application Statistical Package for Social Sciences (SPSS), version 16.0.

The characterization of the population used descriptive measures, that is, we used the distribution of frequencies for the categorical variables, and centrality (mean and median) and dispersion measures (standard deviation, minimum and maximum values) for numerical variables.

Age was categorized in age groups (<40; 40 – 50; 50 – 60; 60 – 70; 70 – 80; ≥80), becoming ordinal categorical. Postoperative time (quantitative variable), obtained from the date of surgery, was dichotomized (up to a year of surgery and more than a year). ED and UI scores were re-categorized, making them dichotomic (presence and absence), and age was divided in tow age groups (adult and elderly).

To compare measures of SE and sexual satisfaction, according to the presence or absence of ED and UI, the Mann-Whitney nonparametric test was used according to the results of Shapiro Wilk's normality test. The significance level adopted was α=0,05. The internal consistency of the instruments (IIEF-5 and ICIQ) was verified using the Cronbach's alpha coefficient.

The project was submitted to the Human Research Ethics Committee and after the approval's report, n. 2099/2011, a pilot test and data collection were initiated.

RESULTS

Regarding sociodemographic characteristics, age ranged from 37 to 81 years old, with mean age of 65.5 years (SD=8.4), with 77.8% older than 60. In relation to comorbidities, a total of 53.1% mentioned arterial hypertension; 17.3%, diabetes mellitus; and 27.2%, some sort of heart disease.

Patients were asked about the reasons that led them to look for the urology service. Most of them sought a routine prostate evaluation (85.2%), whereas only 14.8% presented with urinary symptoms. The mean postoperative time was 25.9 months, with variation of 6 to 48.4 months (±1.3), and most of them had undergone RP less than 1 year before (76.5%). According to D'Amico's classification, 76.6% of the localized tumors were high risk.

With regard to ED, IIEF-5 presented a mean of 6.9 (±10.2) in the responses, with score variation of 1 to 30 points. Cronbach's alpha of 0.99 indicated high internal consistency and homogeneity of items. Most patients after surgery did not participate in sexual activity (74.1%) or try penetration (75.3%), and also presented very low confidence about erection (69.1%). According to the IIEF-5 score, most (90.1%) patients had some level of ED – mostly severe ED (75.3% of them). The association between postoperative time and ED was significantly higher in the group of elderly (p=0.01). Of the total number of patients with ED, 76.7% had high-risk tumors.

Regarding urinary incontinence, ICIQ-SF presented Cronbach's alpha of 0.90, which indicates high internal consistency and homogeneity of items. A 33.3% frequency of UI was observed, with mean score of 3.26 (±5.37), and variation of 0 to 21. Most had undergone surgery more than 1 year before (70.4%) and were elderly (81.5%). This study did not show significant differences of UI among patients with up to one year of surgery in relation to those with more than one year, as well as among adults and the elderly.

The EAR instrument presented Cronbach's alpha of 0.95. The mean scores of the answers was 5.38 (SD=6.6), with variation of 0 to 28 points, indicating high SE.

Data in Table 1 show that patients with ED and UI had higher mean scores (worse self-esteem), and this correlation was significantly higher among patients with ED (p=0.019).

The M-SQ had Cronbach's alpha of 0.98. The mean score of the answers was 20.57 (SD=32.5), with variation of 0 to 100 points. Most patients presented null to poor sexual performance as an overall trend (70.4%). This result may be related with surgical complications of RP (Table 2).

Table 1. Comparison of self-esteem scores among patients who underwent radical prostatectomy, according to the presence of erectile dysfunction and urinary incontinence. Uberaba (MG), 2012.

	Median	Mean score	P value*
Erectile dysfunction			
Yes	4.0	42.99	0.019
No	0	22.88	
Urinary incontinence			
Yes	5.0	44.37	0.350
No	1.5	39.31	

*P value obtained by the Mann-Whitney nonparametric test.

Data show that patients without ED had higher mean scores, that is, higher sexual satisfaction in relation to those with ED (p<0.001). Patients without UI also presented higher scores, which indicates they have a better pattern of sexual performance, even though there was no significant difference between those who had UI and the ones who did not.

DISCUSSION

PC is considered a cancer that affects the elderly, as the onset of 75% of global cases occur after the age of 65. The incidence of PC increases with age, reaching almost 50% of the individuals at the age 80, which indicates that this tumor probably will not spare any man who lives up to 100[10]. According to the *Instituto Nacional do Câncer* (INCA), the only well-established risk factor for the development of PC is age: approximately 62% of the cases diagnosed in the world affect men aged 65 years old or more. In this study, mean age was 65.5 years old. Similar results were found in other studies. In a hospital cohort composed of patients with localized PC, mean age was 73 years (40 – 87), 63 as the mean for those who were submitted to RP[11]. Another study showed the mean age as 66 years (43 – 77), and 81% were older than 60 years[3].

There is a direct and linear relation between arterial pressure and age, being the prevalence of systemic arterial hypertension (SAH) higher than 60% in the population aged more than 65 years. Therefore, the high levels of hypertensive patients in this study may be related with the frequency of elders.

Table 2. Comparison of Male – Sexual Quocient scores (M-SQ) among patients who underwent radical prostatectomy according to the presence of erectile dysfunction and urinary incontinence. Uberaba (MG), 2012.

	Median	Mean score	P value*
Erectile dysfunction			
Yes	1.0	37.21	<0.001
No	4.5	75.63	
Urinary incontinence			
Yes	1.0	38.65	0.458
No	1.0	42.18	

*P value obtained by the Mann-Whitney nonparametric test.

Regarding PC etiology, risk factors related with age and heredity stand out. However, some exogenous factors may play an important role in the development of PC and in the impact on the risk of progression of latent cancer to its clinical form. These factors are usually associated with clinical conditions, such as SAH, DM and heart conditions, which can function as potential postoperative complications[12]. Therefore, the results of the clinical variables in this study are important data, possibly associated with etiology or surgical complications (ED and UI).

Most patients in the study group looked for a routine prostate evaluation, without any urinary symptoms. One of the peculiarities of PC is its ability to be found in a high number of individuals without causing them any harm. A recent systematic review of studies that evaluated the prostate through necropsies of men who passed away without an apparent prostate condition revealed neoplastic spots in individuals who did not present clinical manifestations related to PC in their lives. The study shows that tumors in the elderly age group have an indolent aspect, are asymptomatic and that people affected by it die for other reasons; that is, they die with the cancer, but not because of it[13].

Concerning ED, most patients after surgery were observed to not participate in sexual intercourse, did not try penetration and presented very low confidence regarding erection. Most presented some level of ED. These data coincide with those in other scientific findings, which shows that reported impotence rates are discrepant and high, ranging from 60 to 90%[14].

The age of the patient at the time of surgery is essential to determine the recovery of erectile dysfunction after surgery. Studies have shown the association between age and ED, indicating that better rates of potency in the postoperative period are obtained in the youngest population, which is also more prone to having better preoperative erectile function and being more interested in sexual recovery after surgery[15-17]. In this study, ED was associated to the group of elderly.

The nerve preservation should be considered for patients with localized PC, and the best candidates are those with low risk tumors according to D'Amico[15]. Although this study did not assess preoperative erectile function and the nerve preservation, it is possible to assume that, for most patients, such preservation was not possible, once the high-risk group was prevalent.

The UI rate was in accordance with other scientific findings, considering the variables that generate great range in their indexes. It is important to mention that UI was not classified, and patients who presented any loss were considered as incontinent. UI rates vary considerably – possibly related with differences in surgical approaches – in UI definitions, in the study's methodologies, as well as time of follow-up and the instrument used for urinary function evaluation. Scientific findings show a variance of 8 to 77%[18]. Moderate or severe UI is present in 3 to 5% of the cases, when intervention is conducted by skilled teams[10].

Regarding SE, there has been a significantly higher correlation among patients with ED. Studies point out that the involvement of the urinary and reproductive system and the chances of changes in urinary incontinence and sexual function may cause major emotional responses in patients who underwent prostatectomy[5,14].

A prospective study showed that even though patients present with ED or UI, they either report not having problems or a minor one. Therefore, despite not having erections and losing urine involuntarily, those patients apparently adjusted to the stressful agents, maintaining a positive self-image[19]. When qualitative methods are associated with the studies, men report that ED causes great postoperative affliction, with expressive reduction in SE. Another study showed that men like to demonstrate to themselves and others that they deal with the problems easily, tending to decrease or deny the existence of difficulty to prevent family concern in addition to not being perceived by others as vulnerable[20].

Data concerning sexual satisfaction corroborate with literature, which shows the relationship between sexuality, masculinity and the prostate. A study showed men who presented with satisfactory sexual activity before RP, and after surgery began to present the following characteristics: presence of ED, inhibition of desire, marital conflict and masturbation[3].

Whereas sexual function certainly decreases with age, sexuality and the sense of oneself as a sexual being is still a major aspect in the life of men. Although PC alone may lead to a reassessment of life, ED may challenge their identity further, causing changes in the way men see themselves as sexual beings, how they are inserted in society and their relationship with women[14].

Psychological therapies specifically addressed to patients undergoing a PC treatment are important to help men how to recognize, express and accept the changes caused by the treatment. This will help them improve their communication with their partners and with the care team, and also to guide them in searching for adjustment solutions for urinary and sexual problems.

Caring for a patient with PC usually requires multidisciplinary efforts. The nurses play an essential role, as they are the professionals who communicate with the patients and their families in all stages of the disease, and in different contexts of the service. However, in order to provide qualified care, it is important to understand the biological, physiological and psychological dimensions of the disease, of the treatments, and of the impact they have on the lives of these patients and relatives.

It is important to mention that although the main goal of any treatment for PC is to maximize life expectancy, patients and the health team need to pay attention to the impact of therapies, since survival rates that are not accompanied by QoL may not be the best option for the patient, causing even more suffering.

CONCLUSION

The results obtained in this study allowed establishing the following conclusions:

Concerning sociodemographic characterization:

- Age ranged from 37 to 81 years old, with mean age of 65.5 (SD=8.4), and 77.8% aged 60 years old or more.

Concerning clinical-surgical characterization:

- They reported SAH (53.1%), DM (17.8%) and heart conditions (27.2%). Most patients looked for the urology service while asymptomatic (85.2%). According to D'Amico's classification, 76.6% of the localized tumors were high-risk. As to postoperative time, 76.5% had more than 1 year of surgery.
- Regarding ED, the mean score of IIEF (α=0.99) was 6.9 (SD=10.2). Most did not have sexual activity (74.1), did not try penetration in the postoperative period (75.3%), and had low confidence in relation to erection (69.1%). ED was present in 90.1%, being severe in 75.3%. Of the total patients with ED, 76.7% had tumors classified as high-risk;
- The ICIQ-SF (α=0.90) presented mean score of 3.26 (SD=5.37) and showed UI in 33.3% of the patients.
- SE was considered high considering the Rosenberg SE scores (α=0.95), which showed mean of 5.38 (SD=6.6);

- Most patients presented null to poor pattern of sexual performance (70,4%), considering the M-SQ (α=0.98). The mean score was 20.57 (SD=32.5).

Regarding the association of ED and UI with the age group and postoperative time:

- It was observed that, from the total number of patients with ED (73), 82.2% were elderly (p=0.01), and 78.1% had more than 1 year of surgery. Among those with UI (27), 81.5% were elders and 70.4% had been submitted to surgery more than one year before.

The comparison of SE, sexual satisfaction according to the presence of ED and UI measures:

- Regarding SE, patients with ED (p=-0.019) and patients with UI presented higher mean scores (worse SE);
- Better sexual performance was verified in patients without ED (p<0.001) and without UI.

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