SEXUAL DYSFUNCTION AND QUALITY OF LIFE IN PROSTATE CANCER

Sexual dysfunction and quality of life in prostate cancer

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Abstract

Prostate cancer causes changes, such as erectile dysfunction, with a significant impact on the perception of quality of life (QoL). The aim of this study is to identify changes in perception of QoL related to erectile dysfunction over time.

A descriptive, analytical and longitudinal study was conducted with the participation of oncological patients from the ambulatory urology department of an oncology hospital unit of the North of Portugal. The sample, obtained through convenience non-probabilistic sampling between October 2015 and July 2016, included 60 patients. The instrument used for data collection was IIEF-5 (International Index of Erectile Function-5) that evaluates the severity degree of erectile dysfunction (ED).

Sexual function did not present clinical or statistical differences along the studied period. Cultural issues related to privacy preservation may justify our sexual function scores.

Early identification of QoL changes may guide nurses to patient-centered care.

KEYWORDS: **QUALITY OF LIFE; PROSTATE CANCER, SEXUAL DYSFUNCTION.**

INTRODUTION

Prostate cancer is one of the leading causes of disease and mortality among men and, each year, 1.6 million men are diagnosed and 366,000 men die from prostate cancer.[1] It is the fifth most common cause of cancer death around the world. [2] Prostate cancer is particularly common in developed countries. It is amongst 12% of all cancers in Europe. In developed countries, it accounts for 1 in 10 deaths in men with cancer.[3]

It is more common in men over 50 years of age, accounting for about 3.5% of all global deaths and 10% of all deaths from male cancers. [3] [4] Both incidence and mortality vary across geographical regions and populations, reflecting the

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multifactorial impacts of genetic variation, diet, lifestyle and environmental factors, access to health care and availability [5] This disorder is predominantly a disease of older men with 70 years of age or older. According the National Cancer Institute, (6) the mean age at diagnosis is 68 years, where 71.2% of deaths due to prostate cancer occur in men older than or equal to 75 years. With the growing aging population and rising life expectancy in developed countries, prostate cancer cases are projected to increase dramatically in the future. [6]

The diagnosis and treatment of prostate cancer can lead to significant changes in the life of men, especially the level of sexual activity and, consequently, to change their quality of life (QoL). [7]

Sexuality is an important part of normal human functioning, but this is an aspect of care that has been largely ignored by health professionals and caregivers. [8]

A 2018 study showed that sexual dysfunction affects 26% of men after prostatectomy, the period required for recovery from erectile function after surgery varies between 6 and 48 months. [9]

Research studies[9][10] on health-related quality of life (HRQoL) report that one year after prostatectomy, men are more concerned with sexual function than with the possibility of recurrence of cancer. Persistence of side effects after prostatectomy may result in significant changes in patients' quality of life.

This way health professionals have a responsibility to ensure that cancer survivors and their partners experience a better quality of life during the years of survival.

Early identification of QoL changes may guide nurses to patient-centered care.

TABLE 1

CHARACTERIZATION (N = 60)

	N	%
Age		
45 a 54	3	5,0
55 a 64	17	28,3
65 a 74	22	36,7
75 a 84	11	18,3
85 and more	7	11,7
Literary qualifications		
Without qualifications	12	20,0
Up to 12 years of schooling	32	53,3
Higher education Ensino Superior	16	26,7
Profision		
Retired	32	53,3
Unemployed	1	1,7
Representatives of the legislature	1	1,7
Workers in personal protective services	5	8,3
Plant and machine operators	4	6,7
Skilled workers in industry, construction	3	5,0
Farmers and skilled agricultural workers	3	5,0
Specialists in Intellectual and Scientific Activities	10	16,7
Middle level technicians and professions	1	1,7
Marital status		
Single	5	8,3
Married	41	68,3
Divorced	4	6,7
Widower	10	16,7

AIM

The present study aims to identify the perception of QoL related to erectile dysfunction over time.

METHODS

This is a descriptive, analytical and a longitudinal study, with the participation of cancer patients from an oncology hospital unit. The non-probability sample consisted of 60 patients who visited the doctor's office from October 2015 to July 2016. The inclusion criteria included patients aged over 18 years and patients with prostate cancer. Patients were excluded if they could not read or write in Portuguese and had neurological and cognitive changes that prevented them from completing the questionnaire.

The IIEF-5 (International Erectile Function Index-5) scale that evaluates the prevalence of erectile dysfunction (ED) was used. The possible scores for IIEF5 range from 1 to 25 (each question has scores of 1 - 5). Thus, a zero response to a question was considered to be less functional, while a response of five was considered to be more functional. A score above 21 was considered a normal erectile function and values equal to or below 21 considered with erectile dysfunction. According to this scale, ED is classified into four categories based on IIEF-5 values: severe (5-7); moderate (8-11); mild to moderate (12-16); (17-21), and without DE (22-25). [11]
Data was performed in four moments coincident with the follow-up nursing consultations. In order to understand the changes in the QoL, and according to the moments recommended by the institution for patient follow-up, we started the data collection at the first consultation after diagnosis (M0) and continued one month (M1), three months (M3) and months (M6) after treatment was started.
Data was analyzed using SPSS® (Statistical Package for the Social Sciences) version 25.0 for Windows. All ethical-legal considerations were respected. The voluntary nature of the participation is emphasized and a declaration of informed consent has been signed by each participant. This research was approved by the board of directors of the institution and the Ethics Committee (Opinion N.º 107/014).

TABLE 2

TYPE OF TREATMENT

	N	%
Surgical	18	30,0
Non-surgical	27	45,0
Surgical and non-surgical	15	25,0
Total	60	100.0

TABLE 3

EVOLUTION OF IIEF-5 VALUES

	Mínimum	Máximum	Mean	Standard deviation
Moment 0	5	25	15,28	5,19
Moment 1	5	25	14,67	5,41
Moment 3	5	25	16,13	5,21
Moment 6	6	25	15,77	5,37

RESULTS

The sample consisted of 60 men with a mean age of 69.8 years (SD = 9.8 years), ranging from a minimum of 51 years to a maximum of 90 years. The majority are in the 65-74 age group (36.7%), are married (68.3%), have up to 12 years of schooling (53.3%) and are in a retirement situation (53.3%). **Table 1.**
Almost half of the sample underwent a non-surgical treatment (45%) 30% to a surgery. **Table 2.**
Table 3 and figure 1 shows the evolution of IIEF-5 values in the 4 evaluation moments. Despite the increase in IIEF-5 values, the differences are not statistically significant, F repeated measures (3, 177) = 0.856, p = .465. **Table 3** and **Figure 1**.
It was found that there were no major changes in sexual dysfunction over time (M = 15.4), however, there was a slight change from M0 to M1 and M3 to M6 with a non-significant decrease in values.

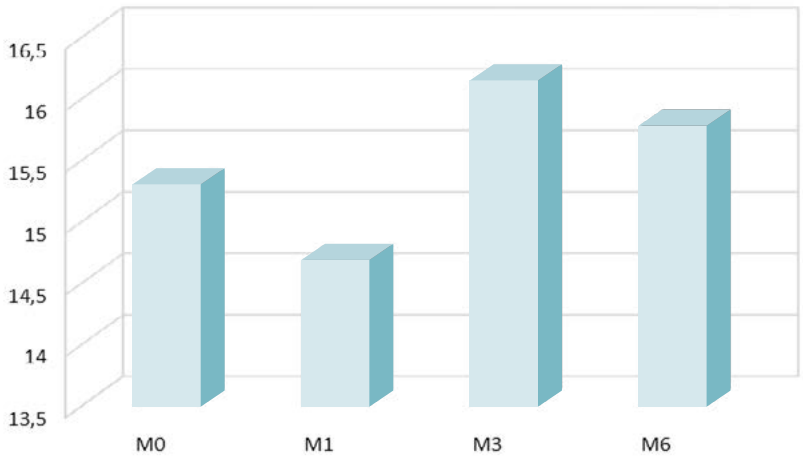
DISCUSSION

In prostate cancer, age is an important risk factor, since both incidence and mortality increase significantly after age 50.
The mean age of study participants is 69.8 years; 36.7% of the participants are in the age range of 65-74 years, older than 50 years, corroborating with the observation that age was a factor significant risk for the sample studied.
Regard sexual dysfunction, as Matthew et al[9] shows, it is a situation of high prevalence in modern societies, partly because of the aging population and the increase in the number of new cases of cancer each year.Erectile dysfunction encompasses a variety of physical aspects with an important contribution of psychological and behavioral aspects. The presence of symptoms in patients with prostate cancer can cause changes in QoL, what may be a variable strongly associated with erectile dysfunction. [12]
In the sample, 30% of the patients underwent surgery, so it would be expected to find statistically significant values in the first months after surgery, as indicated by Matthew et al. [13] , however, and although there were changes these are not very relevant, Another study by Chien et al. [14] shows that there are changes in sexual function regardless of the type of treatment, with sexual function decreasing in the first 24 months, with a marked decline in the first months of the patients undergoing surgery, which is in line with our results which, although not statis-

tically significant, show a slight change in the first months after diagnosis. The lack of statistically significant changes over the period studied may take into account privacy preservation issues, as the study by Sequeira et al. [3]

FIGURE 1

EVOLUTION OF IIEF VALUES



CONCLUSIONS

Sexual dysfunction is one of the most prevalent and long-lasting consequences of prostate cancer treatment. Chien et al. [14] verified that, regardless the treatment, the sexual function decreases in the first 24 months, which is in agreement with the results obtained in the study. Identifying the moments where the perception of QoL undergoes changes allows the nursing team a more targeted intervention for each patient.

The study has some limitations regarding the sample size. With a larger sample larger we could, probably, have obtained more marked responses in this domain. On the other hand, data collection proved to be complex due to the dynamics of the institution, which led to the loss of patients able to participate.

The institution of a nursing follow-up model focused on the vulnerabilities of patients with prostate cancer shall allow to work in an individualized way with each patient in order to improve the domains more affected and consequently a better quality of life.

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