RESEARCH

SOCIAL AND CLINICAL CHARACTERIZATION OF MEN WITH PROSTATE CANCER TREATED AT A UNIVERSITY HOSPITAL

CARACTERIZAÇÃO SOCIAL E CLÍNICA DOS HOMENS COM CÂNCER DE PRÓSTATA ATENDIDOS EM UM HOSPITAL UNIVERSITÁRIO

CARACTERIZACÍON SOCIAL Y CLÍNICA DE HOMBRES CON CÁNCER DE PRÓSTATA TRATADOS EN UN HOSPITAL UNIVERSITARIO

Jeferson Santos Araújo [1]
Vander Monteiro da Conceição [1]
Rafaela Azevedo Abrantes de Oliveira [1]
Márcia Maria Fontão Zago [2]

[1] RN. Doctoral student in Sciences at the University of São Paulo at Ribeirão Preto, College of Nursing – EERP/USP. Ribeirão Preto, SP – Brazil.
[2] RN. PhD in Nursing. Associate Professor at EERP/USP. Ribeirão Preto, SP – Brazil.

Corresponding Author: Jeferson Santos Araújo. E-mail: jefaraujo@usp.br
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ABSTRACT

This study's aim was to describe the social and clinical characteristics of patients diagnosed with prostate cancer, cared for by a university hospital in the interior of São Paulo, Brazil. This descriptive, retrospective study included a search for the characteristics of patients cared for in this hospital between 2001 and 2013. Data were tabulated and analyzed using descriptive statistics. The primary diagnosis of 1,641 out of the 2,620 patients included in the study was prostate cancer; patients were 73 years old on average; most were married, Caucasian, had completed middle school and were retired. The procedures included prostatectomy, transurethral resection, hormone therapy, lymphadenectomy, orchiectomy and chemotherapy. Studies addressing the difficulties and needs concerning treatment and care delivery faced by men affected by PC are needed, as well as studies aiming to identify in greater details the social characteristics of patients.

Keywords: Men's Health; Prostatic Neoplasms; Oncology Nursing; Health Profile.

RESUMO

O objetivo desta pesquisa foi descrever as características sociais e clínicas dos pacientes diagnosticados com câncer de próstata atendidos em um hospital universitário do interior de São Paulo. Trata-se de um estudo descritivo, retrospectivo, em que se procedeu à busca pelas características dos adoecidos atendidos no hospital entre os anos de 2001 e 2013. Os dados foram tabulados e em seguida analisados pela estatística descritiva. Dos 2.620 homens investigados, 1.641 não tinham o diagnóstico principal de neoplasia prostática, apresentavam idade média de 73 anos, predominantemente casados, com a cor da pele branca, ensino fundamental completo e aposentados. Os principais tratamentos realizados foram a prostatectomia, ressecção transureteral, hormonioterapia, linfadenectomia, orquidectomia e quimioterapia. Há necessidade de pesquisas que explorem as dificuldades e necessidades dos homens adoecidos por CP no que se refere ao tratamento e à assistência, bem como estudos que visem a conhecer mais detalhadamente as características sociais dos adoecidos.

Palavras-chave: *Saúde do Homem; Neoplasias da Próstata; Enfermagem Oncológica; Perfil de Saúde.*

RESUMEN

El objetivo de este estudio fue describir las características sociales y clínicas de pacientes diagnosticados con cáncer de próstata atendidos en un hospital universitario en el interior de São Paulo. Se trata de un estudio descriptivo retrospectivo en el que se procedió a buscar las características de los enfermos atendidos en el hospital entre 2001 y 2013. Los datos fueron tabulados y analizados mediante estadística descriptiva. De los 2.620 hombres investigados, 1.641 no tenían el diagnóstico principal de neoplasia prostática, tenían edad media de 73 años, la mayoría era casada, jubilada, de tez blanca y con escuela primaria completa. Los principales tratamientos realizados fueron prostatectomía, resección transuretal, terapia hormonal, linfadenectomía, orquiectomía y quimioterapia. Se requiere efectuar más investigación sobre las dificultades y necesidades de los hombres con CP en lo referente a su tratamiento y atención, así como realizar otros estudios con miras a conocer mejor las características sociales de los enfermos.

Palabras clave*: Salud del Hombre; Neoplasias de la Próstata; Enfermería Oncológica; Perfil de Salud.*

INTRODUCTION

Every year million of men around the world are affected by prostate cancer (PC) and because this is a highly incident disease and its signs and symptoms are often ambiguous, it is one of the most feared diseases and one that poses one of the greatest challenge to current medicine. PC is one of the primary diseases accounting for mortality among men, surpassing even cardiovascular diseases in many countries.[1]

The onset of PC occurs when cells divide and multiply uncontrollably and become a tumor that may develop and spread to other organs in the body through metastasis. For most patients, the tumor grows slowly and does not represent an immediate threat to health; when it grows disorderly, though, it can, due to its strategic location and function, alter the functioning of the renal system, sexual function and social life.[2]

According to the estimates of the José de Alencar National Institute of Cancer (INCA), the male cancer with the highest incidence in 2015 will be prostate cancer, with an estimated risk of 68,800 (22.8%) new cases for every 100,000 Brazilians; an incidence of more than 88.06/100,000 inhabitants is estimated for the Southeast. The rate of incidence of PC is approximately six times higher in developed countries compared to developing countries.[3]

In Brazil, 60 to 70% of the individuals with the disease are diagnosed when it has already spread through the body. According to the Guidelines Project for Prostate Cancer Treatment published by the Brazilian Society of Urology,[4] because the prostate does not cause pain and the signs and symptoms of the disease are not exclusive to it, its initial identification is impaired.

Most PCs are multifocal and heterogeneous. According to the European guidelines for the treatment of PC, exams such as digital rectal examination, prostate-specific antigen (PSA) and biopsy through transrectal ultrasound (TRUS) should be combined in order to establish a diagnosis. Changes in the first two exams are indicative of the disease while the third exam is confirmatory due to its high level of accuracy and differentiation.[5]

The treatment for PC depends on the disease staging and histological degree. It is rarely curable when already infiltrated into the periprostatic fat, into the seminal vesicles, pelvic lymph nodes or has disseminated to other sites.

Treatment, though, is highly effective when the disease is detected early and is localized.[6] Currently, the main modalities of the treatment for PC include observation, surgical removal of the tumor, radiation therapy, and hormone therapy. These procedures may be applied in isolation or in combination.

PC has become a public health problem because it has increased worldwide concomitantly with an increase in life expectancy for the male population. Therefore, we highlight the importance of identifying the social characterization of patients in order to help healthcare workers plan care delivery and guide the choice of the most appropriate interventions to reach the expected results in the context of integral care and, consequently, improve care.

Studies published around the world regarding this topic are not scant, however, focus on discussions concerning therapeutic techniques, male behavior to cope with the disease, and on preventive measures while the characterization of the profile of these patients is very limited in the literature, especially when we consider the state of São Paulo, Brazil. It led to reflection upon this issue and the following research question emerged: what are the social and clinical characteristics of men with PC, cared for by a university hospital in the interior of the state of São Paulo?

This study complies with the recommendations of Law No. 10,289 from September 20th, 2001, which discuss the implementation of the National Program for the Control of Prostate Cancer that recommends the following activities: an institutional campaign in the communication media with messages about what prostate cancer is and how to prevent it; partnerships among state and city departments of health, universities, organized civil societies and unions, encouraging debates and speeches about preventive measures and how to fight the disease.[7]

Given the previous discussion and experience with patients affected by PC, the researchers became interested in conducting this study to describe the social and clinical characteristics of a group of men with PC, cared for by a university hospital in the state of São Paulo, Brazil.

METHOD

This descriptive and retrospective study was conducted in a university hospital located in Ribeirão Preto, SP, Brazil. The population was composed of 2,620 men diagnosed with PC cared for between January 2001 and December 2013.

To structure the data, information contained in the medical records sector was collected and then compiled in a database in Microsoft Office Excel® 2010 in order to help the analysis process. Data were collected in February 2014 and the variables investigated included: sex, marital state, race, age, date of death (when this was the case), schooling, occupation, state of origin, city, (primary and secondary) type of diagnosis, and type of therapeutic procedure. All the diagnoses of men with prostate cancer were included in the study regardless of staging, who had undergone or were still undergoing treatment at the facility, within a previously established interval of time.

Data were analyzed using descriptive statistics containing the participants' characterizations; absolute and relative (%) frequencies were calculated. Descriptive statistics was chosen because it enables an overview of data and organization in tables or graphics and numerical measurements that allow researchers to describe and assess a given group to better synthesize the subject.[8]

Note that the board of the facility authorized the study in accordance with Resolution 466/12, National Council of Health,[9] and data collection was initiated after the Institutional Review Board at the University of São Paulo at Ribeirão Preto, College of Nursing approved the project in order to comply with ethical precepts regulating research with human subjects (Protocol No. 220.266).

RESULTS

Between 2001 and 2013, a total of 2,620 men with PC were cared for in the university hospital. Of these, 1,641 were admitted to the facility with the main diagnosis of prostate cancer, 108 were initially diagnosed with cancers in other sites, such as the bladder, lungs or rectum, while 871 presented secondary diagnoses, such as heart disease, urological, metabolic disorders or disorders in the central nervous system.

Table 1 presents the social characteristics of the patients assisted in the period.

Table 1 - Characterization of patients cared for by the university hospital between 2001 and 2013

Characteristics	Nº	%
Age range		
40 – 49 years old	51	1.9
50 – 59 years old	196	7.4
60 – 69 years old	690	26.3
70 – 79 years old	904	34.5
89 – 89 years old	576	21.9
90 – 99 years old	157	5.9
100 – 109 years old	46	1.7
Total	**2620**	**100**
Education		
Illiterate	346	13.8
Incomplete middle school	369	14
Complete middle school	1429	54.5
Incomplete high school	8	0.3
Complete high school	242	9.2
Bachelor's degree	226	8.6
Total	**2620**	**100**
Marital status		
Married	1841	70.2
Divorced	199	7.5
Single	262	10
Widowed	318	12.1
Total	**2620**	**100**

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Table 1 - Characterization of patients cared for by the university hospital between 2001 and 2013

Characteristics	Nº	%
Occupation		
Retired	1615	61.6
Rural worker	261	9.9
Unemployed	88	3.3
Health worker*	56	2.1
Other**	600	23
Total	**2620**	**100**
Ethnicity		
Caucasian	2129	81.3
Afro-descendant	491	18.7
Total	**2620**	**100**

*Physician, Pharmacist, dentist, nursing staff and radiologist;
**Economist, butcher, teacher, journalist, driver, business administrator, engineer, trader, electrician, painter, mason, military, among others.

The characteristics that stood out among the men were: age at the time of admission, as an average of 73 years old prevailed with a standard deviation of ±10.2 years; most were married men (1,841 – 70.2%), Caucasian (2,129 – 81.3%), attended middle school (1,429 – 54.5%) and were currently retired (1,615 – 61.6%).

Figure 1 presents the patients' cities and origin of referrals: 63.2% were from the cities that compose the Regional Health Directorate XIII (DRS-XIII) in the state of São Paulo, based in Ribeirão Preto. This directorate coordinates the activities of the State Health Department in the regional sphere with the cities and civil organizations from the following cities: Altinópolis, Barrinha, Batatais, Brodowski, Cajuru, Cássia dos Coqueiros, Cravinhos, Dumont, Guariba, Guatapará, Jaboticabal, Jardinópolis, Luís Antônio, Monte Alto, Pitangueiras, Pontal, Pradópolis, Ribeirão Preto, Santa Cruz da Esperança, Santa Rita do Passa Quatro, Santa Rosa do Viterbo, Santo Antônio da Alegria, São Simão, Serra Azul, Serrana and Sertãozinho.

Note there is a predominance of consultations provided to patients from the city of Ribeirão Preto with 708 (27%) of the 2,620 patients. A total of 899 (34.3%) patients were from other cities in the state of São Paulo but were not covered by DRS-XIII, while 63 (2.4%) patients were from the states of Bahia, Goiás, Minas Gerais, Piauí and Rio Grande do Sul.

Another category investigated was the amount of patients cared for per year in the institution and the annual frequency of deaths due to the disease in the same period. Data show that the average number of consultations per year was 201.5 and there were 54.9 deaths per year. Figure 1 presents the curves that show that, initially, the higher the number of consultations, and the higher the number of deaths, with the exception of 2007 when the curves do not follow this pattern.

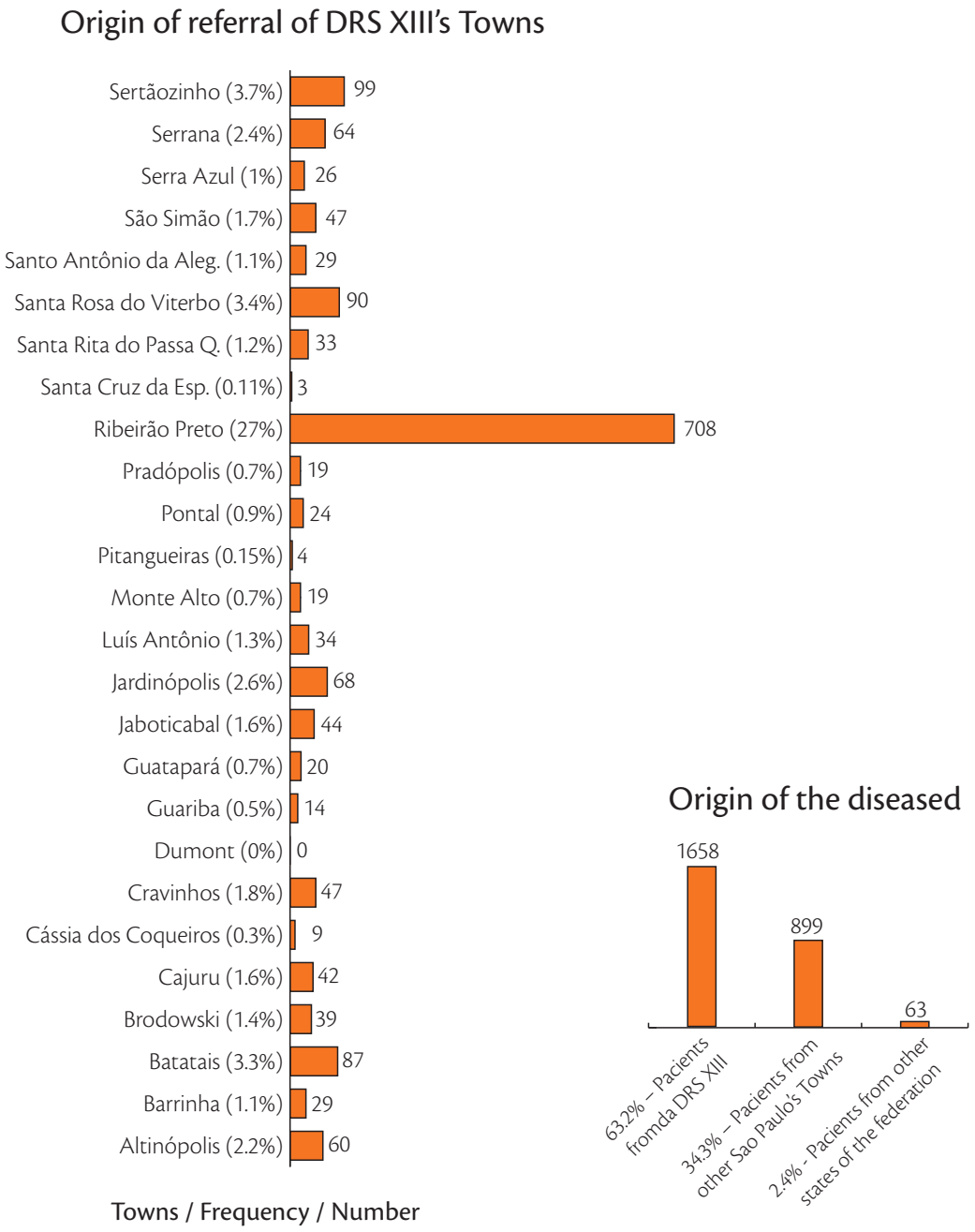

Figure 1 - Classification of patients with prostate cancer according to their cities and origin of referrals to the university hospital, between 2001 and 2013.

Figure 2 stratify the clinical characteristics concerning some of the main procedures chose for the treatment of patients with PC in this period. Note that 51.6% underwent prostatectomy, 51.2% underwent transurethral resection, 47.3% hormone therapy, 19.7% lymphadenectomy, 2.7% orchiectomy, and 17.7% underwent chemotherapy. These proportions represent a situation in which a single patient is often submitted to more than one treatment, that is, a combination of therapies.

DISCUSSION

The causes of PC are unknown and the risks for its development include factors such as race, advanced age, and family history, all of which are not modifiable. Other factors also influence the onset of PC, such as: lifestyle and specific behaviors including smoking, sedentariness, the intake of fatty foods, milk, red meat, and alcohol consumption.[10]

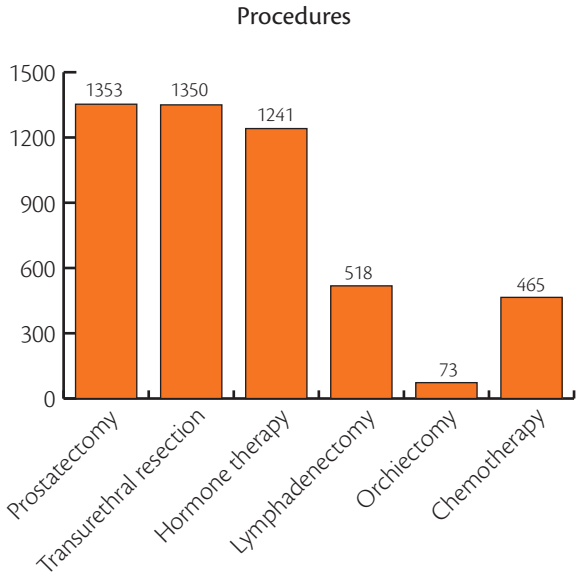

Figure 2 - Classification of patients according to year care is provided and year of death due to prostate cancer in the university hospital in the period between 2001 and 2013.

Among the social factors investigated, the only ones considered in this list for the onset of PC are age and race. Age is presented as an important marker of risk because both the incidence of PC and mortality exponentially increase after 50 years of age.[11] Family history, such as having a father or brother with the disease before 60 years of age, is another relevant marker that can increase the risk of acquiring the disease three to 10 times in comparison to the population in general.[6] This study population is within this age range; 98.1% of the patients were older than 50 years of age.

Studies[3-9] show that Afro-descendants are more susceptible to the onset of PC, both in Brazil and around the world, but the reason has not been clarified yet. This study's results, however, diverge from other statistical results, as the disease was predominantly found among Caucasian individuals. This fact may be explained by data presented in the last census performed in the state of São Paulo that shows that the population that predominates in the region is Caucasian.[12]

Within the time frame selected, the men under study were predominantly married, retired, and had completed middle school. These characteristics are similar to the results reported by another study, also conducted in the state of São Paulo, which investigated 94 medical files using descriptive statistics and verified that 80% of the men were married, 63.2% were retired, 77.9% had incomplete primary school and only 6.55% had completed primary school.[13] Another study investigated 25 Canadian men with PC using a qualitative methodology and verified that 28% had a low level of education, 78% were married and 48% were retired.[14]

Both from the Brazilian and Canadian perspectives, the socioeducational situation of the group of patients with PC amounts to an important characteristic for patients to understand their disease process and actively participate in the treatment. The same occurs with the individuals analyzed in this study.

Studies show that the communication between health staff and patients and how well patients accept the disease and their respective treatments are directly related to level of education. The patients who present a low educational level require intense educational strategies on the part of nurses, focused mainly on clarifying information provided during consultations.[13-15]

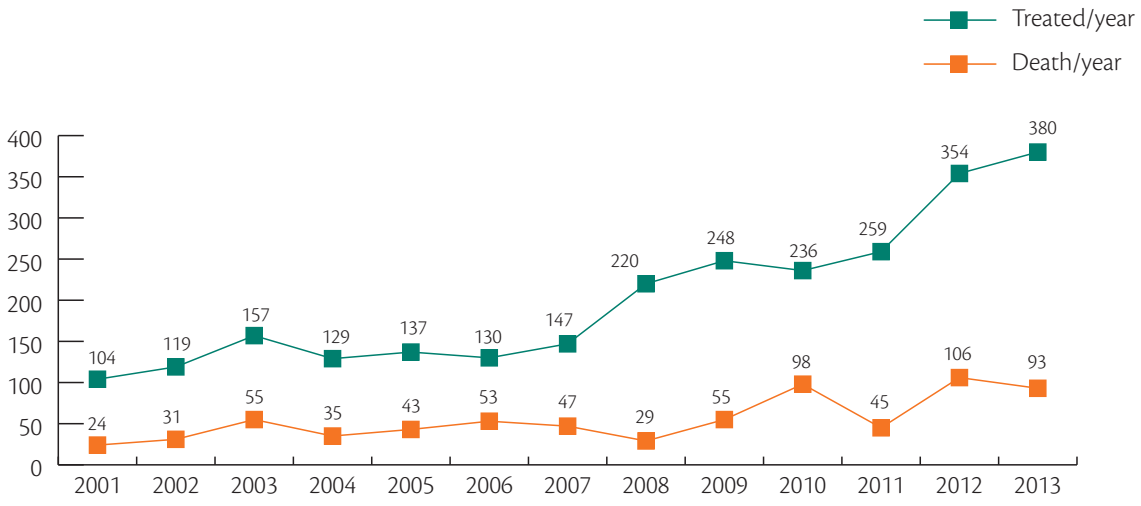

Figure 3 - Classification and frequency of the main procedures performed for treating prostate cancer in the university hospital from 2001 to 2013.

In regard to the origin of the patients included in this study, more than half of the consultations (63.2%) were provided to individuals who lived within the area covered by the DRS-XIII and 34% of the consultations were provided to individuals from other cities outside the DRS XIII's area. Researchers note that the city of Ribeirão Preto is a center of reference in the field of health for many neighboring cities that, in part, suffer from a lack of resources and infrastructure to perform highly complex procedures as those used in the treatment of cancer and, for this reason, end up agreeing with the services provided by the facility under study.[16]

This study highlighted that 714 of the 2,620 cared for in this facility died. In comparison to the curve of deaths, the curve of consultations shows significant growth and increasingly outstripped the curve of deaths over the years. A potential explanation for this fact is the advancement in the methods used to diagnose PC such as the inclusion of PSA and digital rectal examination, which help to detect the disease early, a stage in which treatment is the most efficacious with chance of cure of up to 80% of the cases.

These characteristics are similar to those found in a study conducted in the state of Rio de Janeiro, which monitored individuals diagnosed with PC and verified that 46 of the 258 patients under study died; specific survival for PC among the individuals was 88% at five years and 71% at 10 years.[17]

According to the prospects of INCA and the American Cancer Society for 2013 and 2014, a total of 8.2 million deaths would be caused by cancer worldwide. Of these, PC ranked second among the male cancers that most frequently led to death. Currently in Brazil, its incidence tends to exceed deaths caused by skin cancer, an outcome that has been highlighted in developed countries such as the United States and Canada.[3,11]

PC is present in the routine of many men without, however, causing them any harm or presenting any discomfort, sign or symptom. Even though millions die due to the disease around the world, 70 to 90% of the patients are cured when diagnosis is established early, that is, when the tumor is still localized within the prostate gland.[18]

There are many therapeutic recommendations established by the guidelines for the treatment of PC, which involve the use of medications, surgery, and radiation therapy or only clinical follow-up, may or may not be associated with other procedures.[4] The population under study underwent combined therapies such as: prostatectomy (51.6%), transurethral resection (51.2%), hormone therapy (47.3%), lymphadenectomy (19.7%), orchiectomy (2.7%), and chemotherapy (17.7%).

The results presented in the literature are similar to the profile presented here. An example is the study conducted in Rio de Janeiro with 253 men, whose treatment consisted of radiation therapy combined with prostatectomy, procedures most frequently used when the disease is localized, which led to a significant increase in the survival of these patients.[17] Even though the treatment of the patients addressed in this study did not focus on radiation therapy, researchers defend this therapy as promoting a high rate of cure when associated with prostatectomy and transurethral resection when the tumor is localized.[18]

The transurethral resection of the prostate together with prostatectomy were the procedures most frequently performed in the group under study. Studies show that these are the procedures most frequently performed worldwide for the treatment of PC, while transurethral resection is indicated for tumors with dimensions between 30 and 80 mL and prostatectomy is indicated for tumors between 80 and 100 mL.[19]

Studies conducted in another hospital in the interior of São Paulo monitored 172 patients who underwent transurethral resection of the prostate and reports that 61% of the patients presented complications such as high incidences of urinary infection, hemorrhage, urination failure and urinary incontinence. The study also shows that lower urinary tract symptoms reduced significantly despite high morbidity related to the procedure.[20]

When the tumor, however, is no longer at its point of origin and has spread to other organs (metastasis), the disease is combated by removing the testicles (orchiectomy), hormone therapy or chemotherapy.

Chemotherapy has many advantages because it is distributed throughout the body, enabling it to reach cells that are contaminated by the disease. But in many cases, the procedure is only indicated when the body no longer responds to therapeutic options, such as hormone therapy, and there is painful metastatic disease.[21]

A prostate tumor is a hormone-dependent tumor so that the higher the testosterone level, the higher the stimulus for its development. The use of hormone blockers, either through orchiectomy or medication, is one of the most strongly indicated treatments for disseminated PC.[5] Many patients resist orchiectomy due to many cultural factors related to the maintenance of masculinity, which may be one explanation for the low number of patients in this study who have undergone this procedure.

A cross-sectional study conducted in the state of Alagoas analyzed the potential complications that surgical castration caused in 25 men undergoing PC treatment. The conclusion was that orchiectomy is a good alternative for the treatment of metastatic tumor, even though 100% of the patients experience diminished libido and/or sexual impotency, 64% experience brittle bones, 57% experience memory problems and mood swings, while 50% reported hot flashes and weight gain.[22]

In regard to the lymphadenectomy performed among the 518 (19.7%) patients investigated in this study, researchers highlight that this type of procedure is currently less common due to PSA, which enables the disease to be detected increasingly earlier, which we believe, explains the reduced number of patients who have undergone this procedure in the period investigated.[23]

The analysis, however, enables researchers to better establish staging and its combination with prostatectomy enables medical professionals to maintain a safe area to avoid the development of a tumor after the surgery.

Given data found in this study, oncological nurses play an important role in providing care in the context of men's health not only when performing procedures, but also by implementing care actions that promote preventive measures to help reduce the incidence of the disease.

FINAL CONSIDERATIONS

This study's aim was to describe the social and clinical characteristics of a group of men with PC, cared for in a university hospital in the interior of the state of São Paulo, Brazil.

The social characterizations of the individuals show that the primary diagnosis of most men was prostate cancer, that they were aged 73 years old on average, most were married, Caucasian, had completed middle school and were retired. The main treatment procedures this group underwent included prostatectomy, transurethral resection, hormone therapy, lymphadenectomy, orchiectomy and chemotherapy.

This study allowed the researchers to identify the profiles of patients with PC and can contribute to the implementation of programs to better meet the needs of these patients and help improve the qualification of human resources responsible for planning and providing care.

Limitations include institutional issues related to completing the medical records, which resulted in the loss of some individuals who would otherwise be eligible to participate in the study but were excluded due to a lack of data. We also note the scarcity of studies discussing aspects related to the treatment of prostate cancer, which would enable the identification of similarities and particularities concerning the profiles of patients with PC from other regions of the country. Most studies addressing this topic focus on procedures, potential complications, indications and their relationship with the issue of masculine identity, limiting deeper discussions.

Studies exploring the difficulties and needs of men affected with PC cancer in regard to treatment and care, from both qualitative and quantitative perspectives, are needed, as well as studies that identify in detail the reality of the services directed to these individuals and the reality of professionals working in this field, so that nurses can plan their care actions from a more integral perspective.

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