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PROFILE OF SUS ONCE PATIENTS IN THE CITY OF VALENÇA: AN EPIDEMIOLOGICAL STUDY IN THE COUNTRYSIDE OF THE STATE OF RIO DE JANEIRO, BRAZIL

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Abstract: Cancer is one of the main causes of morbidity and mortality worldwide. In Brazil, the late diagnosis of this disease emphasizes an important public health problem. It is necessary to know the epidemiology of the oncological profile of patients. The objective of this study is to evaluate the profile of oncology patients from the municipal health network in the municipality of Valença, state of Rio de Janeiro in Brazil, based on the medical records of the oncology outpatient clinic of the Faculty of Medicine. This is a cross-sectional, quantitative and observational, descriptive and retrospective study. Of the total of 458 hospitalized patients, 196 were female and 262 were male. Among women, the most frequent diagnosis of cancer was colon cancer (21.4%) followed by breast cancer (18.4%), while among men the most frequent diagnosis was prostate cancer (34.4%). followed by colon cancer (16.1%). Male patients diagnosed with cancer are older than female patients and were smokers (57.6%) and had systemic arterial hypertension (51.2%). Regarding female patients, almost half (49.2%) also had hypertension and about 38.9% were smokers. Among men, on average those diagnosed with prostate cancer were older (71 years) and those diagnosed with esophageal cancer were the youngest (62 years). At the same time, among women, those diagnosed with esophageal cancer were the oldest (68 years old) and those diagnosed with uterine cancer were the youngest (57 years old). 100% of patients diagnosed with prostate cancer were smokers and, of this total, about 65% were also hypertensive. Smoking represented 94% of female patients and 93% of male patients with lung cancer. Among men, with the exception of patients with colon cancer (38.1%), the majority (>50%) were smokers. This study is expected to offer information on the profile of different types of cancer, being a strategic component for the efficient and effective

planning of cancer prevention and control programs in Brazil.

Keywords: Cancer; oncological profile; epidemiology.

INTRODUCTION

Brazil has large socioeconomic differences between states and cities. However, the Federal Constitution guarantees, through the principle of Universality of the Unified Health System (SUS), that all Brazilian citizens have the right to access health services and actions. In addition, the principles of hierarchization and regionalization demonstrate that the services offered must be organized in levels of increasing technological complexity, arranged in a defined geographic area and defined by the population to be served.

The Brazilian Unified Health System (SUS) is a decentralized network of health services that offers primary, secondary and hospital care free of charge throughout Brazil and for its entire population. Almost 75% of the population resorts only to the SUS when they need medical attention. The system reflects the Brazilian Constitutional Act, which advocates health care as a universal right and obligation of the State. Despite this, Brazil is affected by severe socioeconomic disparities, and its health system often suffers from chronic underfunding and reduced access in poorer regions. In addition, the current care model has been shown to be fragmented, centered on hospital care and focused mainly on the acute demands of the population.

In the current process of illness, cancer stands out in the population, being responsible for a high rate of mortality and hospitalizations, occupying the four main causes of early death. In fact, socioeconomic disparities between the different regions of the country1 lead some users of the system to seek more complex and quality care outside their homes, especially with regard to diseases that require complex, expensive and prolonged treatments, such as cancer. In Brazil, it is the second cause of death, with cardiovascular diseases in first place (CASTRO, 2018; INCA, 2019).

In addition, in Brazil, according to INCA, 2020 of malignant neoplasms (except non-melanoma skin) the most common cancer in men is prostate, followed by colon and rectum. In the State of Rio de Janeiro, it has an estimated incidence rate of 194.79 cases per 100,000 inhabitants. In women, it is breast cancer, followed by colon and rectum cancer, and in the state of Rio de Janeiro it has an estimated incidence rate of 132.43 cases per 100,000 inhabitants.

Due to the scope of this disease, it is necessary to use instruments aimed at improving the quality of care in order to improve the benefits to patients. (MIRANDA B. et al., 2016). Comprehensive care is of utmost importance for the quality of treatment, as these patients are at constant risk of various life-threatening oncological emergencies during treatment (KAMEO et al., 2018).

Research is important, as it can serve as a basis for the elaboration of public policies that better serve the population, since knowing the characteristics and estimates linked to the incidence of cancer becomes fundamental for sizing the magnitude and impact of this disease (INCA, 2016).

Cancer care is among the most expensive in the social sphere. And to change this picture, it is essential to encourage the search for information about the incidence in the population and the implementation of public policies aimed at reducing financial damage and mortality rates. Since the theme is opportune due to the increase in the rates of types of cancer worldwide, thus, the data can help in the implementation of promotion, prevention and early diagnosis actions.

Thus, knowing information about the profile

of different types of cancer and characterizing possible changes in the scenario over time are guiding elements for Surveillance actions, being a strategic component for the efficient and effective planning of cancer prevention and control programs in Brazil. The goals of the present study are based on investigating which types of cancer are more prevalent in the municipality and age range of involvement, sex, associated comorbidities.

MAIN GOAL

The objective of this study is to evaluate the profile of oncology patients from the municipal health network in the city of Valença-RJ, based on the medical records of the oncology outpatient clinic of the Faculty of Medicine.

SPECIFIC OBJECTIVES

- Identify the most prevalent age group; associated comorbidities
- Identify the most prevalent gender in hospitalizations;
- Assess the prevalence of types of cancer;
- Correlate the types of cancer with the most prevalent age group, sex and outcome.

MATERIAL AND METHODS

The study will have a cross-sectional, quantitative and observational, descriptive and retrospective design, and will be developed through the evaluation of medical records of patients who were treated at the oncology outpatient clinic in the city of Valença.

The sample used will consist of all patients who were treated at the oncology outpatient clinic of the Faculty of Medicine of Valença, which is the only one in the public and private network of the municipality, in patients over 18 years of age and in the period from 2012 to 2022, not having no exclusion criteria.

The medical records of the patients will be analyzed, and the following data will be collected: sex, age, diagnosis, associated comorbidities, smoking and alcohol consumption. And to characterize the sample, frequency distribution tables and tables of measures of central tendency and dispersion of variables will be presented, according to age group. Quantitative variables that have a symmetrical distribution will be described using mean and standard deviation, and those that have a strongly asymmetrical distribution will be described using the median (interquartile range). To compare the differences between frequencies, means and medians, the Chi-square, Student's t and Mann Whitney tests will be used respectively. Data will be processed and analyzed using the R statistical system, version 3.2.2, for interpretation purposes, the type I error limit will be up to 5% (p value less than 0.05).

All aspects related to resolution CNS 466/12, which deals with research involving human beings, will be observed. In addition, the research was submitted to the Ethics Committee of the Faculty of Medicine of Valença, and after its release, data collection will begin.

RESULTS AND DISCUSSION

Of the total of 458 hospitalized patients, 196 were female and 262 were male. Among women, the most frequent diagnosis of cancer was colon cancer (21.4%) followed by breast cancer (18.4%), while among men the most frequent diagnosis was prostate cancer (34.4%). followed by colon cancer (16.1%) (Table 1).

Despite the cancer diagnosis, male patients are older than female patients (Table 2). However, when analyzed by type of cancer, there is no statistically significant difference between the age of patients according to gender (Table 2).

Among men, on average those diagnosed with prostate cancer were older (71 years) and those diagnosed with esophageal cancer were the youngest (62 years). At the same time, among women, those diagnosed with esophageal cancer were the oldest (68 years) and those diagnosed with uterine cancer were the youngest (57 years) (Table 2).

Analyzing all the patients in the present study, regardless of the result of the diagnosis, it was found that most male patients were smokers (57.6%) and had systemic arterial hypertension (51.2%). Regarding female patients, almost half (49.2%) also had hypertension and about 38.9% were smokers (Figure 1).
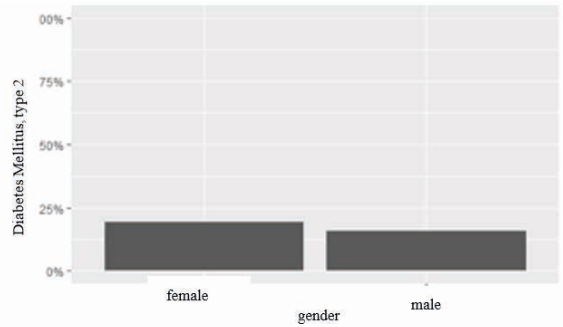

Figure 1. Percentage (%) of patients who responded positively to alcoholism and smoking, according to gender.

In the illustration below, it is observed that 100% of patients diagnosed with prostate cancer were smokers and, of this total, about 65% were also hypertensive (Figure 2). At the same time, smoking represented 94% of female patients and 93% of male patients with lung cancer (Figure 2).

Furthermore, it is also possible to observe that among men, with the exception of patients with colon cancer (38.1%), the majority (>50%) were smokers (Figure 2).
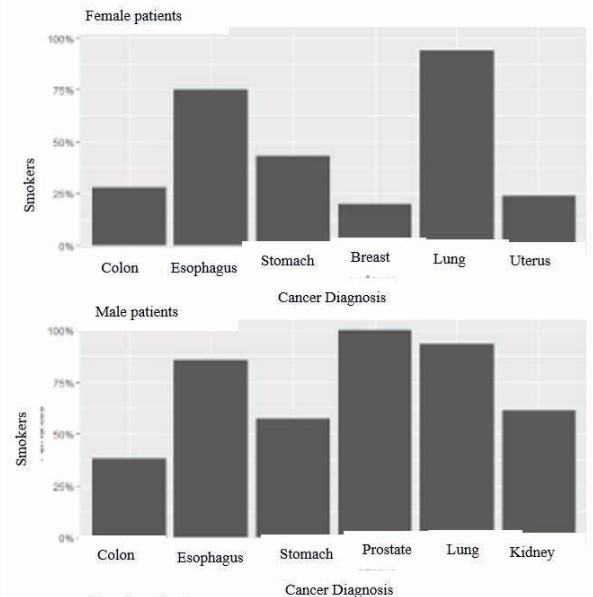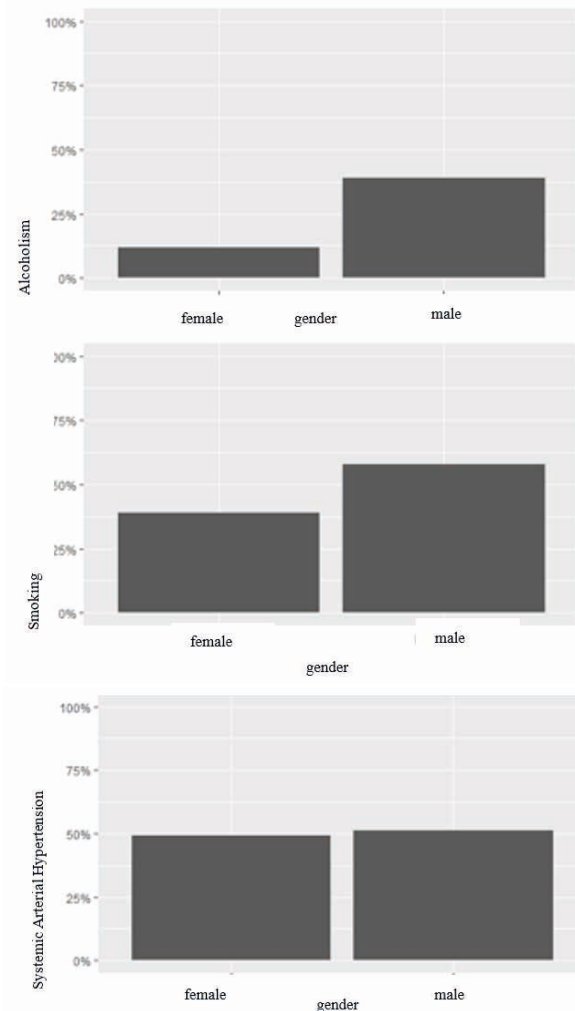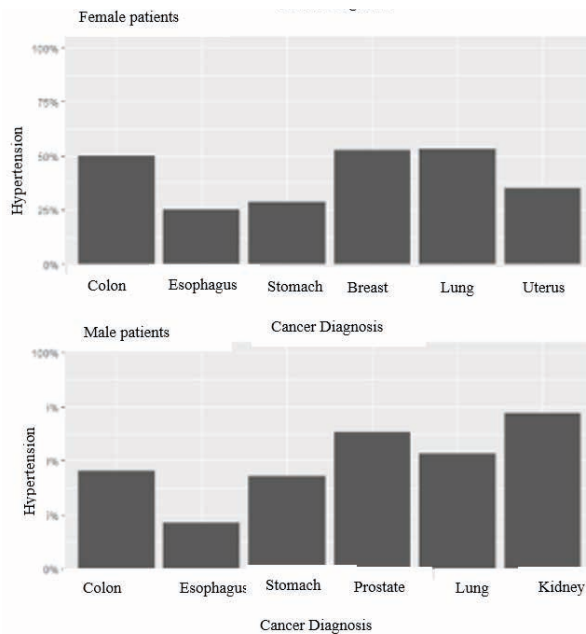
Figure 2. Percentage (%) of smokers and hypertensive patients, according to the most frequent cancer diagnoses, by sex.

The main limitations of this study are related to the administrative character of our database, since it has some gaps in clinical information and individual characteristics, such as socioeconomic variables. In this sense, patients who only underwent surgery as treatment were not included in the study, due to lack of information about the stage of the cancer at the beginning of the treatment. The lack of data from these patients must be mentioned, as surgery is commonly the recommended treatment modality for patients in the early stages of cancer. However, these limitations are overcome by the benefits of using a large database that includes the entire population of patients treated for cancer in the Unified Health System (SUS).

Prevalent types of cancer and the profile of these patients were reported. Seeking, therefore, after this study, the possibility of carrying out preventive measures and health promotion are viable. In addition, the professional who receives these patients will be aware of what is most prevalent in the area, and this helps in the early diagnosis of diseases, which can change the outcome of many patients.

FINAL CONSIDERATIONS

According to our study, among women the most frequent diagnosis of cancer was colon cancer, followed by breast cancer, while among men the most frequent diagnosis was prostate cancer, followed by colon cancer. Despite the cancer diagnosis, male patients are older than female patients. There was no statistically significant difference between the age of patients according to gender. Among men, on average those diagnosed with prostate cancer were older (71 years) and those diagnosed with esophageal cancer were the youngest (62 years). At the same time, among women, those diagnosed with esophageal cancer were the oldest (68 years old) and those diagnosed with uterine cancer were the youngest (57 years old). Most male patients were smokers and had systemic arterial hypertension. Regarding female patients, almost half also had hypertension and about 38.9% were smokers.

It was observed that 100% of patients diagnosed with prostate cancer were smokers and, of this total, about 65% were also hypertensive. At the same time, smoking represented 94% of female patients and 93% of male patients with lung cancer. Furthermore, it is also possible to observe that among men, with the exception of patients with colon cancer (38.1%), the majority (>50%) were smokers.

Because this situation can have a strong economic and social impact both on the individual need for migration of cancer patients and on the municipality, the epidemiological study in question carried out in Valença, a municipality in the interior of the state of Rio de Janeiro, highlights the need to expand oncological therapies more

complex to serve cancer patients universally.

According to Giddens' theory of structuring, these aspects exemplify the dialectic of control involving asymmetrical access to means (resources), typical of social contexts. The identified deficits can strongly affect patient survival, quality of life, and cancer-related mortality. Thus, changes in planning and evaluation parameters are essential to ensure universality, equity in access to health and comprehensive care for cancer patients. The norms and resources used in the formulation of policies must be more inducing and facilitate improvements in the availability and quality of oncological care in Brazil.

Sex	Diagnosis						
	Colon	breast	Uterus	Lung	Gastric	Esophagus	Others
Female (n = 196)	21.4	18.4	8.7	8.7	7.2	4.1	31.5
	Prostate	Colon	Renal	Lung	Gastric	Esophagus	Others
Male (n = 262)	34.4	16.1	6.9	5.7	5.4	5.4	26.1

Table 1. Percentage frequency (%) of cancer diagnoses according to the patient's gender

ATTACHMENT

	Feminine		Masculine		T-Student	Interpretation of ages
	Min - Max	Mean ± SD	Min - Max	Mean ± SD	p-value	
All	25 - 93	62.9 ± 14.6	45 - 95	67.7 ± 10.9	0.0005443	≠
Colon	44 - 87	66.5 ± 11.6	46 - 92	62.8 ± 11.1	0.1373	=
Lung	46 - 85	66.9 ± 11.5	47 - 83	65.4 ± 9.1	0.6917	=
Gastric	29 - 88	61.7 ± 15.1	45 - 84	67.6 ± 12.1	0.2681	=
Esophagus	54 - 81	67.9 ± 8.6	47 - 83	61.9 ± 9.2	0.1777	=
breast	25 - 93	59.2 ± 18.0	---	---	---	---
Uterus	33 - 93	56.9 ± 15.6	---	---	---	---
Prostate	---	---	51 - 95	71.3 ± 9.3	---	---
Renal	---	---	45 - 87	68.0 ± 13.2	---	---

Table 2. Descriptive analysis and t-student test of age of hospitalized patients according to cancer diagnosis, by gender.

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