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CLINICAL, EPIDEMIOLOGICAL AND SOCIODEMOGRAPHIC PROFILE OF CANCER PATIENTS ATTENDED AT A PHILANTHROPIC INSTITUTION

Perfil clínico, epidemiológico e sociodemográfico dos pacientes oncológicos atendidos em uma instituição filantrópica

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Abstract: Objective: to describe the clinical, epidemiological and sociodemographic profile of cancer patients, attended by a support institution in the north of Minas Gerais. **Methodology:** a cross-sectional, descriptive and quantitative study based on the analysis of 449 medical records of patients diagnosed with cancer attended by a support institution in the north of Minas Gerais, in the year 2015 and 2016. For the data collection, an instrument containing clinical, epidemiological and sociodemographic variables was used. Data were analyzed by descriptive statistics. **Results:** the majority of the patients were male (n=298; 66,4%), elderly (n=225; 50,1%), mean age 60.3 years, and standard deviation of 14.2 , being the minimum age of 18 years and the maximum of 93 years. As for the municipality of origin, 381 (84,9%) came from small municipalities of Minas Gerais. The most prevalent neoplasia was head and neck (n=94; 20,9%). Considering sex, prostate cancer was the most frequent (n=78; 26,2%) in men, whereas in women it was breast cancer (n=35; 23,2%). The most commonly used therapy was the association of radiotherapy and chemotherapy, representing 158 people (35,2%). **Conclusion:** the characterization of the clinical, epidemiological and sociodemographic profile of cancer patients is fundamental since the changes accompany the health / disease process that varies according to the region, the individual, in equivalence to their vulnerability. Results of this research suggest new studies for not achieving association of diseases with their respective risk factors.

Keywords: Epidemiology; Neoplasms; Risk factors; Health Profile.

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Resumo: Objetivo: descrever o perfil clínico, epidemiológico e sociodemográfico dos pacientes com câncer, atendidos por uma instituição de apoio do norte de Minas Gerais. **Metodologia:** estudo transversal, descritivo e quantitativo elaborado por meio de análise de 449 prontuários de pacientes com diagnóstico de câncer, atendidos por uma instituição de apoio do norte de Minas, do ano de 2015 e 2016. Para o levantamento dos dados utilizou-se um instrumento contendo variáveis clínicas, epidemiológicas e sociodemográficas. Os dados foram analisados por estatística descritiva. **Resultados:** a maioria dos pacientes era do sexo masculino (n=298; 66,4%), idosos (n=225; 50,1%), com média de idade, 60,3 anos e desvio-padrão de 14,2, sendo a idade mínima de 18 anos e a máxima de 93 anos. Quanto ao município de origem 381(84,9%) eram oriundos de pequenos municípios de Minas Gerais. A neoplasia mais prevalente foi o de cabeça e pescoço (n=94; 20,9%). Considerando o sexo, o câncer de próstata foi o que apresentou maior frequência (n=78; 26,2%) nos homens, já nas mulheres foi o câncer de mama (n=35; 23,2%). A terapêutica mais utilizada pelos pacientes foi associação de radioterapia e quimioterapia, representando 158 pessoas (35,2%). **Conclusão:** a caracterização do perfil clínico, epidemiológico e sociodemográfico dos pacientes oncológicos é fundamental visto que as mudanças acompanham o processo saúde/doença que varia de acordo com a região, o indivíduo, em equivalência a sua vulnerabilidade. Resultados dessa pesquisa sugerem novos estudos por não alcançar associação das doenças com seus respectivos fatores de risco.

Palavras-chave: Epidemiologia; Neoplasias; Fatores de Risco; Perfil de Saúde.

INTRODUCTION

The non-transmissible chronic diseases (NTCDSs), with special emphasis on cardiovascular diseases, chronic respiratory disease, diabetes and cancer, has become the cause of threats to physical health and economic security of many low and middle-income countries. The challenge of many underdeveloped countries in relation to NTCDSs is that they face higher levels of these diseases in the early stages of their economic development with less resources and less time to respond effectively.[1-2]

The inequalities in health are reflections of social inequalities. Regarding cancer, considered an NCD, socioeconomic differences are manifested in various aspects of its epidemiological profile, such as: lower socioeconomic levels are strong indicators on the incidence of late diagnosis of cancers that would be capable of tracking. These factors contribute to inequalities between and intra countries.[3-5]

In Brazil, in the year of 2013 189,454 deaths were recorded related to cancer. It is estimated for the biennium 2018/2019 the occurrence of 600,000 new cases of the disease in the country each year. The estimate of new cases per 100 thousand inhabitants in accordance with the sex is 300,140 to 282,460 men and women, being the most common neoplasm prostate cancer with 68,200 (31.7%) and breast cancer with 59,700 (29.5%), for their gender. In the southeastern region 135,590 for men and 137,020 cases for women are estimated.[6-7]

Cancer is considered a multifactorial disease in which may be related to the internal origins to the organism (hereditary) or external, such as sedentary lifestyle, habits, environmental, sexual, medications, among others. These causes may act together or in sequence, changing the genetic structure of deoxyribonucleic acid (DNA) of cells and consequently developing a neoplasia.[8]

Approximately 30 to 50% of the cases of cancers can be prevented, reduced and controlled by means of the implementation of evidence-based strategies for prevention, early detection and treatment of the patients, thus making many types of cancers curable. The early identification in turn, may result in a higher probability of survival, lower morbidity and less expensive.[9]

From the analysis of the epidemiological and social context of cancer in Brazil, implementation of health policies geared to these patients are necessary before the social precarity and difficulty of access to primary prevention, early diagnosis and treatment, contributing to a reduction in the mortality rate. Another factor represented that adds to illness caused by neoplasias, characterized in recent decades, is the early and late demographic transition, accompanied by an epidemiological change.[4]

Thus, the objective of this study was to describe the clinical, demographic and epidemiological profile of cancer patients treated by an institution of support from the north of Minas Gerais.

METHODOLOGY

This was a cross-sectional study, descriptive and quantitative developed through analysis of medical records of patients with a cancer diagnosis, serviced by an institution of support from the north of Minas Gerais.

The study was carried out at Associação Presente de Suporte a Paciente com Câncer - Padre Tiãozinho, known as Associação Presente. It

is a philanthropic institution that has as its mission to promote assistance, care and support to young people, adults and the needy elderly diagnosed with cancer and act in prevention and early diagnosis of the disease.

It was chosen to work with the Patient Record taken from the medical records of patients treated during the years 2015/2016, which contained the following variables: age, sex, municipality of origin, diagnosis, treatment modality, benefits received and period of admission in the institution.

The universe of this study counted on 591 patients enrolled in the study period. However, upon performing recruiting 142 were excluded for lack of fulfilment of the records. Thus, it was considered a final sample of 449 patients of both genders. The inclusion criterion was patient with established and confirmed diagnosis of neoplasia at any site.

To perform the data collection a structured script was used containing the variables of the study. Before the collection a pre-test was conducted by means of a random collection records outside the study period in which some flaws were identified in the social patients sheets making exclusion of some variables unavoidable.

After collection, the data were organized in a database and processed by the *program Statistical Package for Social Science (SPSS)*, version 20.0 and later subjected to descriptive analysis (Simple frequencies and percentages). The age range was categorized according to the *Brazilian Institute of Geography and Statistics (IBGE)*.[10]

In order to establish the spatial distribution of the cases of cancers it was accessed by means of *shapes*, geographical databases, on the IBGE website. The techniques of Geographic Information System (GIS) were used to process and describe the data. It was taken as a source the cartographic base of the municipal division of the state of Minas Gerais, proposed by t IBGE in the year 2010.[10] Subsequently data were opened and processed in *software Arc Gis Map 10.2.1*, in which the cartographic alignment and the processing of the *layout*, having as an end product the thematic map used in this work.

This study respects the ethical aspects of the Resolution 466/2012 of the National Health Council[11] and was approved by the Research Ethics Committee o Universidade Estadual de Montes Claros, which generated the consubstantiated number of opinion CEP 2.342.041/2017.

RESULTS

Among the 449 medical records analyzed, it should be emphasized that the majority of the patients were male (n=298; 66.4%), elderly patients (n=225; 50.1%), with an average age of 60.3 years and standard deviation (SD) of 14.2, with a minimum age of 18 years and maximum of 93 years. In the age range, the highest frequency was between 51 to 70 years (n=228; 50.7%). Concerning the municipality of origin 381(84.9%) came from small towns of Minas Gerais (Table 1).

Table 1 - Social Demographic data of patients treated in an institution of support in the north of Minas Gerais in the years 2015 and 2016, Montes Claros (MG), 2018.

Variable	n	%
Age range		
10 to 20	2	0.4
21 to 30	11	2.5
31 to 40	26	5.8
41 to 50	69	15.4
51 to 60	116	25.8
61 to 70	112	24.9
71 to 80	85	18.9
81 to 90	24	5.4
≥ 91	4	0.9
Sex		
Female	151	33.6

Continuation of Table 1

Variables	n	%
Male	298	66.4
Place of Birth		
Montes Claros	68	15.1
Other municipalities	381	84.9

Source: field research - Associação Presente, 2015/2016

In table 2 it is possible to observe that t Santa Casa de Montes Claros received a greater number of patients with 397 people (88.4%), as well as to the benefits sought by them in support institution prevailed to medication with 164 (36.5%) and regarding the therapeutic modality most frequently used consisted of the combination of radiotherapy and chemotherapy representing 158 (35.2%).

Table 2 - Origin Hospital, care services provided, and treatment received by patients in an institution of support in the north of Minas Gerais in the years 2015 and 2016, Montes Claros (MG), 2018.

Variable	n	%
Hospital of origin		
Santa Casa	397	88.4
Dilson Godinho	51	11.4
Oncovida	1	0.2
Type of benefits		
Lodging	104	23.2
Lodging and Medication	135	30.1
Medication	164	36.5
Food Staples	27	6.0
Others	19	4.2
Treatment		
Chemotherapy and radiotherapy.	158	35.2
Chemotherapy	149	0.0
Radiotherapy	123	27.4
Radiotherapy and hormone therapy	14	3.1
Oncologic follow-up	5	1.1

Source: field research - Associação Presente, 2015/2016

In relation to cancers presented by patients, the cancer of the head and neck (C&P) stands out, being the most prevalent in the general population (n=94; 20.9%). Considering the gender, prostate cancer stands out with frequency of 78 (26.2%) in men, and breast cancer (n=35; 23.2%) in women (Table 3).

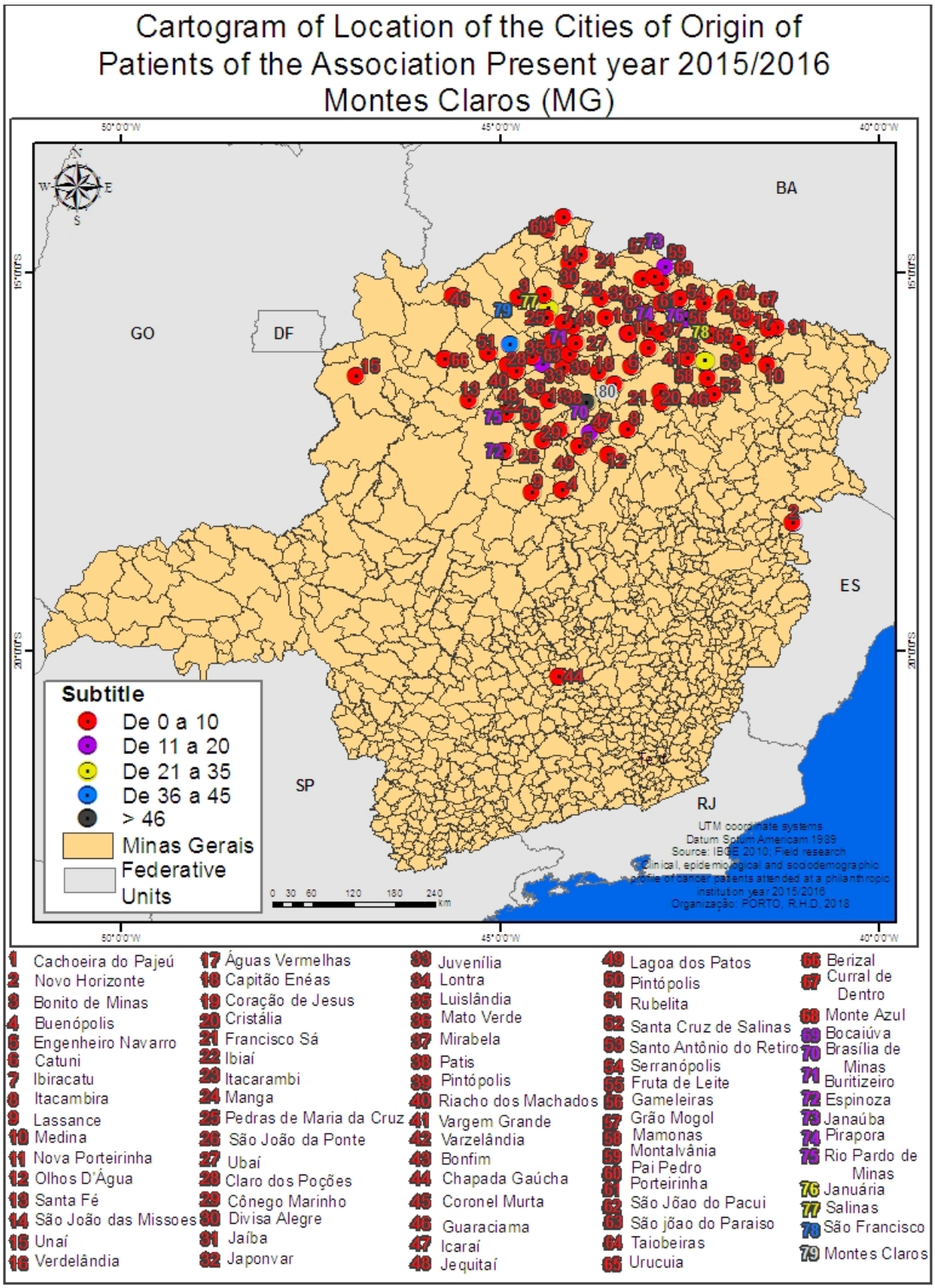
Table 3 - Main types of cancer per sex of patients treated in an institution of support in the north of Minas Gerais in the period from 2015 to 2016, Montes Claros (MG), 2018, n= 449.

Type of cancer	Female n	Female %	Male n	Male %
Breast	35	23.2	1	0.3
Uterus	31	20.5	-	-
C&P (larynx, pharynx)	17	11.3	77	25.8
Lung	9	6.0	11	3.7
Prostate	-	-	78	26.2
Intestines	27	17.9	33	11.1
Esophagus.	13	8.6	65	21.8
Skin.	12	7.9	10	3.4
Unspecified Location	1	0.7	5	1.7
Others	6	4	18	6

Source: field research - Associação Presente, 2015/2016

Concerning the distribution of patients, Figure 1 graphically represents the layout of the patients of this association in the years 2015/2016, arranged according to municipality of origin. The subdivision was categorized according to legend: greater than 46 patients are inhabitants of Montes Claros; 36 to 45, residents of São Francisco; 21 to 35 include Januaria, Salinas; 11 to 20 patients inhabitants of bocaiuva, Brasília de Minas, Buritizeiro, Janaúba, Spinoza, Pirapora, Rio Pardo de Minas; 0 to 10 other places. As to the origin, it is verified that 381(84.9%) come from small towns in the north of Minas Gerais. Montes Claros totaled 68 (15.1%).

Figure 1- Graphical representation of associação presente's patients in the years 2015/2016, distributed according to municipality of origin. Montes Claros (MG), 2018.



Source: field research - Associação Presente, 2015/2016

DISCUSSION

The characterization of the clinical, demographic and epidemiological profile of oncology patients is fundamental, due to the changes accompanying the health/disease process and this varies from region to region, individual to individual in equivalence to their vulnerability.

In this study, the sociodemographic characteristics of patients were similar to the national literature in relation to patients with cancer diagnosis.[12-14] From the data analysis it was verified that 66.4% of the patients were male, predominantly elderly (50.1%), with greater frequency in the age range from 51 to 70 years (50.7%).

A study conducted in João Pessoa, Paraiba, which aimed to evaluate the health-related quality of life of patients with cancer in palliative care and its association with sociodemographic and clinical aspects, identified a population mostly of elderly patients (60.7%), ranging in age from 50 to 69 years (51.9%), females predominate, with 59.1%.[12]

Whereas in research that sought to describe the clinical and epidemiological profile of elderly patients in an outpatient clinic of a referral hospital in oncological treatment in the state of Pará, Brazil, showed higher frequency of the female sex and age range between 61 to 80 years, representing 56% and 83.5%, respectively.[13] In a survey conducted in the city of Vitória da Conquista, Bahia, pointed prevalence of females (59%).[14]

In this study, the characteristics in relation to age and age of patients were similar to the literature, however it differs regarding gender. It is emphasized that the profile found can be justified due the processes of demographic and epidemiological transitions, in which it is noted the significant growth of elderly people and people with chronic diseases.

It is noteworthy that men more than women, have a less healthy life style, which predisposes to chronic diseases, and it is corroborated to this the rejection of the possibility of getting ill, which may be related to the difficulty in recognizing their health needs. In this sense, it is necessary to know the personal characteristics and socioeconomic factors, since they are determinants on the man's health , favoring the promotion of health and prevention of diseases that affect the population.[15]

Concerning the assistance in oncology in public health services, this must be organized to meet the patient in his or her entirety and it must subsidize planned, organized and controlled oncologic assistance by means of state and municipal departments according to the needs of each region.[16]

Regarding the assistance, Santa Casa de Montes Claros had the largest number of care services for these patients. Considered city-pole in the north of Minas Gerais, Montes Claros has hospital and outpatient care in the oncology service by means of two hospitals considered Unit of High Complexity in Oncology (UNACONS), hospital Dilson de Quadros Godinho and Santa Casa. Definitive diagnosis and treatment of cancers more prevalent in regions where they are inserted are UNACON's responsibility, offering at least surgical treatments, chemotherapy and radiotherapy with formal contractual obligation.[16]

The treatment is carried out by means of the diagnosis of the tumor histopathological examination in conjunction with other exams and staging in which will indicate the potential of aggressiveness and how the disease spread through the body to perform the final diagnosis, treatment and care to be provided to this patient.[17]

Difficulties in access to health care professionals, diagnosis and release of the results at an

opportune time for patients, entailing a delay in the initiation of therapy, which in turn can associate the tumor growth thus reducing the chances of cure.[18]

In relation to the treatment of the results found, shows that the most commonly used therapy, combination of radiotherapy and chemotherapy, are in accordance with the literature. In a study conducted on chemotherapy in lung cancer of non-small cell, authors report about the use of concomitant chemotherapy and radiotherapy. They highlight the increased survival and decrease in loco-regional recurrence with association of these therapies. They emphasize that this treatment with neo-adjuvant therapy followed by surgical procedure have attested survival in two years between 50 and 70% and reinforce that even patients with vertebral involvement may be benefited.[19]

The offerings of the treatments provided by the Unified Health System (SUS) were anchored in national policy for cancer prevention and control in the network of health care for people with chronic diseases. Their diversity of treatments shows various effects and limitations in which each therapeutic modality exercises individually on the patients.[20]

Adverse reactions are notable even when the medication is administered by infusion pump following prescription with standardization of volume and speed. These reactions can be immediate or late, mild, moderate or severe, may present local and systemic manifestations such as hyperemia, xerostomia, skin rash , febrile neutropenia, nausea, vomiting, alopecia, diarrheas, weight loss, among others.[21]

It should be emphasized that patients in chemotherapy treatment experience physical suffering related to pain. [18] In a study conducted in Minas Gerais Center Western ratified that due to bureaucratic obstacles, such as lack of fill for preparation of documents for opening and authorization procedures of High Complexity (APAC), this document required for registration of the patient, medication for chronic pain are not obtained. It should be pointed out that the same are offered for free through SUS for oncology patients according to Decree no.1083/2012) of the Brazilian Ministry of Health.[22-23]

In the survey conducted in João Pessoa, Paraiba, which evaluated the quality of life of patients with cancer in palliative care it was verified that other aggravating important factors that corroborate for the weakness is the socioeconomic conditions presented by the majority of patients with cancers that are retired and survive due to this benefit, however they are taxpayers with family income.[12]

Data from the present study are in accordance to the studies presented noting that most of the patients sought Associação Presente in search of medicines. Another concordance is the similarity of the therapy used by these patients prevailing association of radiotherapy and chemotherapy.

In this study, the neoplasia of C&P was predominant (20.9%). The cancer of C&P or C&P carcinomas is a malignant tumor of the upper tract, which includes the oral cavity, pharynx, larynx. In Brazil, this neoplasia represents the 5th place in males and in 7th place in the female population, being more frequent in individuals over the age of 45 years. It is noteworthy that this neoplasm is possible to be healed, especially when early diagnosis is performed.[24-25]

In research conducted in Belém, Pará, which sought to characterize the clinical and epidemiological profile of patients with cancer of C&P, a predominance of males was verified in the age range from 50 years.[26]

In this analysis, the cancer of C&P was the second most prevalent in men, in women is the fourth most incident cancer, corroborating with the scientific literature, in which this neoplasia is more prevalent in males when compared to females, considering the risk factors such as smoking, and

alcoholism are more frequent among men.[25-26]

It is corroborated to this the fragility regarding the implementation of health education programs for this public that presents higher risks or measures that will minimize the percentage or development of new tumors.[24]

It is emphasized that the epidemiological profile of C&P can vary in each region of the country, making it necessary to know the profile to detect changes in behavior and risk factors and work activities of promotion and prevention in health, besides providing an early diagnosis aiming at a more effective treatment.[26]

Considering the prevalence of cancers among genders, this study highlights the prostate cancer in men and breast cancer in women, as observed in table 3.

Prostate cancer is considered by the National Cancer Institute the second most incident cancer in the male population. In research conducted in the north of the country, it was found that this cancer was more prevalent in males, representing 38.6%.[13] In a study that evaluated patients of a clinic specialized in chemotherapy that covers 80 municipalities in the southwestern region of Bahia, pointed to the prostate cancer as the second most incident (16.5%), just behind breast cancer.[14]

It is pointed that such cancer has an insidious onset and is present in the daily life of many men without causing any type of discomfort, sign or symptom. As an indicator for containment of cases of this neoplasia, the following are highlighted: prostate-specific antigen (PSA) and the rectal. These help in the early detection of the disease contributing to effective treatment and presenting with chances of cure of up to 80% of cases.[27]

However, the influence of the social imaginary about the disease cancer and about the stigma of screening for prostate cancer can accommodate, inhibit or cause fear and shame to the man that will be subjected to the examinations. Therefore, one should understand how a given population, or a specific group of risk perceive, feel and live the health, because it is the first step to define more efficient and appropriate intervention strategies to the real needs of health of the male gender.[28]

Regarding breast cancer, similar to other studies[13-14,29], this is the type of neoplasm that most affects women, deserving special attention from health services.

The development of the country corroborates to submit worrying figures of the disease in the country and the indices of mortality increase each year. It is essential the early detection for a good diagnosis and the possibility of cure by means of guidance and adherence to self-examination in women with greater vulnerability.[30]

With implementation of programs such as SISCAN (Cancer Information System) that replaces the SISCOLO and SISMAMA systems (National Program for the Control of Cervix of the Uterus and Breast Cancer) the information is updated and improved, allowing longitudinal follow up of these patients, who are to be monitored and their registration does not adhere in findings.[31]

The discussion of the national policy of integral care to women's health within SUS is important, because it is necessary to think in differentiated strategies to reach this audience.[32] It is stood out as an indispensable tool for early detection of breast cancer, investment by means of screening tests for early, as the mammogram.[30]

Findings of this study show a higher prevalence of breast cancer in women in accordance with papers cited making inference about the weaknesses in women's health, reinforcing the importance of better public health policies geared to this population.

Regarding the municipality of origin, it was found in this study that 84.9% of the patients are from small cities of Minas Gerais, mainly in the north of Minas Gerais.

In a study that sought to discuss the regionalization of health in Minas Gerais, associating it with assistance to patients with breast cancer in the municipalities that compose the Expanded Region of Northern Health (RASNorte), it was found that in addition to the municipalities belonging to the North of Minas Gerais, other regions in other Brazilian states as Bahia, Santa Catarina and Rio Grande do Norte seek treatment in UNACONS from Montes Claros due to lack of service in the northern portion of the state, being the same concentrated in the southern portion.[16]

In accordance with the data presented, patients from other municipalities that compose RASNorte, seek by hospitals UNACONS of Montes Claros, showing weakness in the services offered.

In research conducted in João Pessoa, Paraiba, it was found that 53.5% of patients receiving care were inhabitants of other cities in the interior of the State, concentrating the specialized assistance and the flow of overcrowding in services in the municipalities of João Pessoa (capital) and Campina Grande. This information highlights the lack in care of patients with cancer of the interior of the State.[12]

It is noted that many patients as a way to circumvent the system, have addresses of friends or relatives who reside in the city to receive rapid and appropriate treatment in other networks that do not fall within their area of coverage, bringing serious complications, such as the increased flow in health services hindering the access of the population to completion of exams, outpatient surgeries, among others.[16]

The data obtained in this study show that 381 patients live outside of Montes Claros reinforcing fragility in services of high complexity in oncology and ratifying lack of decentralization of service. In this context it is necessary to overcome geographical barriers that impede the formation of a decentralized, hierarchical system, which can meet these patients in their comprehensiveness and equity favoring timely , effective treatment, improving health indicator and favoring economy for the services.

The regionalization of health in Minas Gerais is under construction, however, this whole process should be analyzed constantly to achieve good results, efficiency and thus ensure access of oncologic patients, especially those potentially lethal.[16]

For better compliance with public health policies the regionalization plan is necessary (PDR). The SUS regionalization through the PDR emerges as the main document that guides the conformation of the regions in the states of the federation. Through this instrument it is allowed to organize the flow of people, distribution of units and the accessibility of the population to the network of SUS services. In this sense, the management is performed and directs the health area in order to decentralize these services in order to provide access for these users within their respective regions.[16.33]

This analysis showed some limitations, there are institutional issues relating to the filing of records which resulted in losses of sampling and excluded variables that have increased the proportion of non-responses. The lack of association of diseases with their respective risk factors are also highlighted.

CONCLUSION

From the results it is possible to check that the majority of the patients were elderly, male and the diagnosis is more prevalent in both sexes the

neoplasia of C&P. Regarding the benefits sought by them in support institution prevailed the medication and lodging. The most often used treatment was the association of radiotherapy and chemotherapy.

The result of this study demonstrates relationship with the description of the literature on the topic, but suggests further studies, mainly in what refers to the association of diseases with their respective risk factors in order to establish strategies for the prevention and control of these diseases.

It is recommended monitoring and good practices related to the completion of medical records, for which the assistance given is recorded, characterizing an integral and individualized care, enhancing the services provided, corroborating for future scientific investigations.

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