REVISTA O MUNDO DA SAÚDE

Profile of Young Adults with Cancer at a University Hospital in Santa Catarina, Brazil.

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Resumo

Cancer is currently a public health problem, and cancer care is among the most expensive in the social field. To change this scenario, it is essential to carry out studies mainly on the young adult population. This study aimed to describe the clinical-epidemiological and sociodemographic profile of cancer cases in young adults assisted by the public system of a University Hospital. This is a cross-sectional, descriptive study with a quantitative approach carried out at the Oncology Service of Hospital Universitário Santa Terezinha (HUST) – Joaçaba, SC. Data collection was carried out by consulting the medical records of patients aged 20 to 39 years, who were diagnosed with cancer from January 2008 to November 2017. The sample consisted of 502 medical records where the mean age of the individuals was 31.6 years. The main risk factor was the presence of a family history of cancer (55.7%), and surgery (50.2%) was the method of choice for treatment. Of the total, 76.1% were female. However, when assessing the death rate, a greater number was observed in males (19.1%). Tumors of the breast, cervix, thyroid, testis, and colon were the most prevalent. Patients with colon (26.3%) and rectal (42.9%) tumors died more frequently. Such data allowed to characterize the socio-demographic and clinical-epidemiological profile of cancer in the studied region, offering subsidies for the implementation of public policies aimed at improving the support given to the population assisted by the Unified Health System, in the Midwest Region of Santa Catarina.

Palavras-chave: Young adult. Cancer. Epidemiology. Health profile. Death.

INTRODUÇÃO

Although the risk of cancer increases with age, cancer today is the leading cause of disease-related deaths in adolescents and young adults. Only causes such as accidents, suicides, and homicides surpassed cancer as the main cause of mortality in this age group[1,2,3].

Studies report that the global cancer burden in young adults aged 20 to 39 years differs from that seen in younger or older ages and varies substantially by age, sex, level of development, and geographic region. The diagnosis of cancer in this age group impacts not only the patient's health, but also the ability to continue studies, in addition to building a professional career and family[3,4].

According to data from the American Cancer Society2 for the year 2020, in the United States, approximately 83,700 new cases of cancer were estimated in people aged 20 to 39 years old with an estimated 8.73% death rate in this age group. Young women are more affected by the disease than young adult men, however, both are equally likely to die 2,5.

In Brazil, hospital cancer records between the years 2007 to 2011 showed that 10.2% of the cases seen were in patients aged between

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20 and 39 years old[6]. In the state of Santa Catarina, the number of cancer deaths in the year 2019 was 9,160, including all age groups. In the age group of 20 to 39 years, 377 deaths from cancer were registered, representing approximately 13.7% of cases of deaths in this age group. When the data are compared to 2015, there is a slight increase in mortality in this age group; in 2015 cancer lethality represented 11.35% of the cases[7].

Cancer is considered a public health problem, faced by the Brazilian health system in view of its epidemiological, social, and economic scope. The increasing incidence of cases of neoplasms has caused a change in the population's epidemiological profile. Some factors are associated with the increase in the cases of neoplasms favoring changes in this profile, among them, the high exposure to cancerous factors, population aging, improvement of technologies for diagnoses, improvement in economic and social conditions, improvement in quality and reporting of information, in addition to the increase in cancer-related deaths in young individuals[8].

The main negative point about cancer in young adults is that survival rates in this age group have not improved in recent years, unlike other ages[9] in which a significant improvement in life expectancy has been observed[2]. Another fact worth highlighting is the difficulty in the management of these patients by health professionals in view of the uncertainties regarding treatment protocols and adherence to them, in addition to insufficient recruitment for clinical trials in this population[10].

In the United States, the trend of survival of individuals with one of the 24 most common types of tumors in this population also showed that, in general, there was no progress when compared to children and adults over the age of 40 years old. Of the 24 types studied, only nine had a survival rate above 80%, and eight types of tumors did not reach 60%. The authors also point out that improving the survival of a cancer patient, especially at the age of 20-39 years, provides a positive social impact in terms of productivity when compared to older adults[11].

Research conducted so far indicates that some types of cancer in adolescents and young adults may have genetic and biological characteristics that differ from other ages. Thus, studies on the subject are increasingly necessary to improve the understanding of factors related to carcinogenesis in young adult patients[5].

In Brazil, studies in young adult patients diagnosed with cancer are scarce, therefore, research in this area can contribute to understanding the evolution of cancer, as well as the outcome in these patients, enabling improvements in the establishment of therapeutic protocols and public health programs that aim to diagnose cancer cases early in this population.

Therefore, this study aimed to describe the clinical-epidemiological and sociodemographic profile of cancer cases in young adults assisted by the public system of a University Hospital. The results were obtained with data from medical records of young adult patients aged 20 to 39 years old, during ten years of the oncology center's operation at Hospital Universitário Santa Terezinha (HUST), Western University of Santa Catarina, located in the midwest region of the state of Santa Catarina.

METHODOLOGY

This study was carried out through the analysis of medical records obtained at the oncology service of the Hospital Universitário Santa Terrezinha (HUST) – Joaçaba, SC of the Western University of Santa Catarina - UNOESC. The HUST hospital is a regional point of reference in oncology, treating all types of tumors (oncology and hematology); however, it does not serve pediatric patients. The service is not specialized in young adults, but serves patients as young as 20 years old, diagnosed with cancer.

This is a cross-sectional, descriptive study, with a quantitative approach, using secondary data. Data collection was performed by consulting the medical records of patients aged 20 to 39 years old, who were diagnosed with cancer at the HUST Oncology Service - Joaçaba, from January 2008 to November 2017.

The search for medical records took place in 2018 and 2019, primarily through two computerized systems of the institution, using the filters: IDC (International Disease Code) from C00 to C97, age (20 to 39 years), and year (2008 to 2017). These systems provided the list with 538 patients who met the criteria to participate in the study. However, 36 medical records were not found when the consultation was performed with the physical documents, therefore, these were excluded from the number of medical records evaluated. The final sample consisted of 502 records that were located throughout the collection period.

The variables collected to contemplate the objectives of the study were obtained through a form structured by the researcher, containing the following information: sociodemographic data: age, sex; clinical-epidemiological data: body mass index (BMI), year of diagnosis, patient's age when diagnosed, tumor location, staging, metastasis; risk factors: family history of cancer, consumption of tobacco, alcohol, and previous diagnosis of cancer.

The inclusion criteria were medical records of patients diagnosed with cancer, aged 20 to 39 years old at the time of diagnosis, diagnosed from 2008 to 2017, and followed-up and treated by the oncology center of the HUST hospital. Medical records of patients diagnosed with cancer prior to 2008 and after the year 2017 and over the age of 39 at the time of diagnosis were excluded, as well as those that were not followed-up and treated by the HUST hospital oncology center, and those whose physical records for data consultation were not found. The choice of the 20 to 39 age group occurred because studies report that patients under the age of 20 are considered teenagers and over the age of 39 are no longer considered young adults[5,10].

The study was developed in accordance with CNS Resolution 466/2012 of the Ministry of Health and was submitted to and approved by the Research Ethics Committee of the Western University of Santa Catarina under opinion No. 2.625.725.

The data collected were tabulated in the Microsoft Excel 2010 program. After the database was created, the information was organized into tables and analyzed using descriptive and inferential statistics by the Statistical Package for the Social Sciences (SPSS) IBM Statistics 22.0 software. The variables were presented through absolute frequency, relative frequency, mean, and standard deviation. Pearson's chi-squared test was used to assess the association between categorical variables. Values of $p<0.05$ were considered statistically significant for all the applied tests.

RESULTS

The results of this study refer to the medical records of young patients aged 20 to 39 years old diagnosed with cancer at the HUST hospital in Joaçaba, SC. As can be seen in the tables, some information does not add up to the 502 medical records evaluated, this occurred because they did not present the data in the medical records, therefore, they have a lower sample number.

Table 1 shows the sociodemographic and clinical-epidemiological characteristics of this population. It is observed that the average age was 31.3 years old, with the majority being female (76.1%). As for occupation, these data are not included in table 1, as most of the records did not contain this information (26.5%). 25.9% of reported occupations, if they had a prevalence of less than 2% of the time, they were classified as "others". Those classified as "homemakers" were 16.3%, followed by operators and other industrial workers at 9.4%. Students represented only 1.4% of the total.

The classification of patients according to body mass index (BMI) shows that most patients were eutrophic, with a BMI between 18.5 and 24.99 (57.7%). Overweight was found in 27% of patients, followed by grade I obesity (6.5%).

Comorbidity was present in 16.2% of the population studied, with human papillomavirus (HPV) infections and diseases of the respiratory system being the most frequent. A small portion of the patients seen during the study period had a previous cancer diagnosis (1.6%).

As for the risk factors for smoking and alcohol, 33.2% of the medical records had records that the patient was a smoker. Regarding alcoholism, the information was obtained only in a small portion of the records and of these 3.8% reported being alcoholics. As for the family history of cancer, 55.7% reported having close relatives with cancer.

With regards to the different types of tumors, Table 2 shows that the two with the highest number of cases were breast cancer at 28.3%, and cervical cancer at 22.7%. These were followed by the option "others" (17.5%), an option that has a wide variety and small representation of tumors with a prevalence below 0.8%. Next, thyroid, testis, and colon tumors were found at 5.4%, 5.2% and 5.0%, respectively. Only 1.6% of patients were diagnosed with a uterine tumor and 0.8% with a kidney tumor.

Most patients were in stage I (39.0%), while 24.9% were diagnosed in stage IV. Patients classified as stage 0 correspond to 14.7% of the total. Stages II and III had approximate rates of 10.4% and 11%, respectively. The population served in these 10 years was predominantly composed of patients who did not have metastases (76.1%).

Regarding the treatment line used to cope with the disease, most patients underwent surgery exclusively (50.2%). The second most used treatment was surgery associated with chemotherapy at 26.8%. The least used treatment lines were radiotherapy associated with chemotherapy, and surgery together with radiotherapy.

The majority of young adult patients who participated in the study remain under follow-up or treatment (55.5%).

Table 3 was built considering exclusively the types of tumors diagnosed in both sexes. Breast tumors, although affecting the male sex, was not mentioned because its incidence is extremely low in men (in this study, of the 142 cases, only 5 were in men). The results presented in table 3 show that there is a predominance in women regarding thyroid tumors (74.1%), melanomas (57.2%), Hodgkin's lymphomas (55.0%), rectal tumors (66.7%), and those classified under the "other" option (53.4%). However, colon cancer (56.0%), and non-Hodgkin's lymphomas (77.8%) occurred predominantly in males. Kidney tumors were diagnosed with the same frequency in both sexes. Therefore, in the final amount, the female sex was predominant with 54.6% of the analyzed cases.

Observing the distribution of tumor types (Table 4), compared to the outcome of the disease, the data show that the ovarian (76.9%) and cervical (73.1%) tumors had a predominantly discharged. However, kidney tumors (100%), Hodgkin's (82.4%) and non-Hodgkin's lymphomas (85.7%), breast tumors (79.2%), thyroid (76.2%), colon (68.4%), uterine (66.7%), testicular (63.6%), melanoma (60.0%), and rectal (57.1%) cancers continued with treatments or follow-ups. As for the tumors with the highest mortality rates, rectal cancer reached 42.9%, colon cancer was 26.3%, and testicular cancer was 22.7%.

When it was possible to establish the patient's clinical stage (Table 5), we compared this with the outcome and the results revealed statistical significance between the variables. The more advanced the patient's clinical staging, the higher the death rates. However, patients classified as stage 0 and I had the predominant outcome of being discharged. The majority of patients who remained under follow-up or treatment were in stage II or III.

When analyzing the association between tumor type and metastasis (table 6), statistical significance was observed. The cases of rectal and colon cancers showed 80 and 54.5% of metastasis induction capacity, respectively. Cases of ovarian tumors and non-Hodgkin's lymphomas were not metastasized.

The data shown in table 7 show that although cancer has affected the female sex on a larger scale, the rate of metastasis is higher in men (42.9%).

When analyzing the data in table 8, there was an increase in 38.1% of female patients and 22.6% of male patients. As for the patients who died, 19.1% were male.

Table 1– Sociodemographic, clinical-epidemiological conditions and lifestyle of young adult patients diagnosed with cancer between 2008 and 2017 at Hospital Universitário Santa Terezinha - (HUST). Joaçaba, Santa Catarina, 2018.

Age (mean in years ± SD)	31.6 ± 5.3	
	n	%
Sex		
Female	382	76.1
Male	120	23.9
BMI classification		
Low weight	13	6.0
Eutrophic	124	57.7
Overweight	58	27.0
Grade I Obesity	14	6.5
Grade II Obesity	4	1.9
Grade III obesity	2	0.9
Comorbidity		
Yes	21	16.2
No	109	83.8
Family history of cancer		
Yes	117	55.7
No	93	44.3
Previous Cancer Diagnosis		
Yes	8	1.6
No	494	98.4
Smoker		
Yes	75	33.2
No	151	66.8
Alcoholic		
Yes	2	3.8
No	51	96.2

Mean age n=502; Sex n=502; BMI n=215; Comorbidity n=130; Family history of cancer n=210; Previous cancer diagnosis n=502; Smoker n=226; Alcoholic n=53; SD = Standard Deviation. Note: The numbers are different for each variable, as some data were not found in the medical records.

Table 2– Incidence of different types of tumor, staging, metastasis, treatment, and outcome in young adult patients diagnosed with cancer between 2008 and 2017 at Hospital Universitário Santa Terezinha - (HUST). Joaçaba, Santa Catarina, 2018.

Tumor type	n	%
Breast	142	28.3
Cervical	114	22.7
Thyroid	27	5.4
Testicular	26	5.2
Colon	25	5.0
Hodgkin's lymphoma	20	4.0
Ovarian	16	3.2
Melanoma	14	2.8
Non-Hodgkin's lymphoma	9	1.8
Rectal	9	1.8
Uterine	8	1.6
Kidney	4	0.8
Others	88	17.5
Staging		
0	48	14.7
I	127	39.0
II	34	10.4
III	36	11.0
IV	81	24.9
Metastasis		
Yes	81	23.9
No	258	76.1
Treatment		
Surgery	240	50.2
CT + surgery	128	26.8
CT + RT + surgery	61	12.7
Chemotherapy	33	6.9
RT + surgery	8	1.7
CT + RT	8	1.7
Outcome		
Under treatment / Follow-up	207	55.5
Discharged	129	34.6
Death	37	9.9

Tumor type n=502; Staging n=326; Metastasis n=339; Treatment n=478; Outcome n=373. CT = Chemotherapy; RT = Radiotherapy. Note: The n is different for each variable, as some data were not found in the medical records.

Table 3– Relationship between tumor type and sex in young adult patients diagnosed with cancer between 2008 and 2017 at Hospital Universitário Santa Terezinha - (HUST). Joaçaba, Santa Catarina, 2018.

	Sex				
Tumor type	Female		Male		P Value
	n	%	n	%	
Thyroid	20	74.1	7	25.9	
Colon	11	44.0	14	56.0	
Hodgkin's lymphoma	11	55.0	9	45.0	
Melanoma	8	57.2	6	42.8	0.148
Non-Hodgkin's Lymphoma	2	22.2	7	77.8	
Rectal	6	66.7	3	33.3	
Kidney	2	50.0	2	50.0	
Others	47	53.4	41	46.6	

Pearson's chi-squared test was performed to assess the association between tumor type and sex. n=196. Note: The n does not correspond to 502 because tumors that do not occur in both sexes were not included in this analysis.

Table 4– Tumor type and outcome in young adult patients diagnosed with cancer between 2008 and 2017 at Hospital Universitário Santa Terezinha - (HUST). Joaçaba, Santa Catarina, 2018.

	Outcome						
Tumor type	Treatment/Follow-up		Hospital discharge		Death		P Value
	n	%	n	%	n	%	
Breast	80	79.2	14	13.9	7	6.9	
Cervix	22	23.7	68	73.1	3	3.2	
Testicular	14	63.6	3	13.6	5	22.7	
Colon	13	68.4	1	5.3	5	26.3	
Hodgkin's lymphoma	14	82.4	2	11.8	1	5.9	
Thyroid	16	76.2	4	19.0	1	4.8	< 0.001
Ovarian	3	23.1	10	76.9	0	0.0	
Melanoma	6	60	3	30.0	1	10.0	
Rectal	4	57.1	0	0.0	3	42.9	
Non-Hodgkin's Lymphoma	6	85.7	0	0.0	1	14.3	
Uterine	4	66.7	1	16.7	1	16.7	
Kidney	4	100	0	0.0	0	0.0	
Others	21	39.6	23	43.4	9	17.0	

Pearson's chi-squared test was performed to assess the association between tumor type and outcome. N=373. Note: The n does not correspond to 502 because in some records the outcome was not found.

Table 5– Clinical staging and outcome in young adult patients diagnosed with cancer between 2008 and 2017 at Hospital Universitário Santa Terezinha - (HUST). Joaçaba, Santa Catarina, 2018.

	Outcome						
Stage	Treatment/Follow-up		Hospital discharge		Death		P Value
	n	%	n	%	n	%	
0	9	26.5	25	73.5	0	0.0	
I	47	43.1	60	55.0	2	1.9	
II	27	90.0	2	6.7	1	3.3	0.000
III	29	93.5	0	0.0	2	6.5	
IV	28	54.9	1	2.0	22	43.1	

Pearson's chi-squared test was performed to assess the association between stage and outcome. N=255. Note: The n does not correspond to 502 because in some medical records the outcome as to the stage was not found.

Table 6– Tumor type and occurrence of metastasis in young adult patients diagnosed with cancer between 2008 and 2017 at Hospital Universitário Santa Terezinha - (HUST). Joaçaba, Santa Catarina, 2018.

	Metastasis				
Tumor type	Yes		No		P Value
	n	%	n	%	
Breast	26	25.7	75	74.3	
Cervical	6	6.1	92	93.9	
Testicular	9	50.0	9	50.0	
Colon	12	54.5	10	45.5	
Hodgkin's lymphoma	1	12.5	7	87.5	
Thyroid	2	8.7	21	91.3	
Ovarian	0	0.0	8	100.0	0.000
Melanoma	3	37.5	5	62.5	
Rectal	4	80.0	1	20.0	
Non-Hodgkin's Lymphoma	0	0.0	2	100.0	
Uterine	2	33.3	4	66.7	
Kidney	1	25.0	3	75.0	
Others	15	41.7	21	58.3	

Pearson's chi-squared test was performed to assess the association between tumor type and metastasis. N=339. Note: The n does not correspond to 502 because in some medical records they did not present a report on whether the patient had metastasis or not.

Table 7– Comparison between sex and metastasis in young adult patients diagnosed with cancer between 2008 and 2017 at Hospital Universitário Santa Terezinha - (HUST). Joaçaba, Santa Catarina, 2018.

Metastasis					
Sex	Yes		No		
	n	%	n	%	P Value
Female	51	19.0	218	81.0	0.000
Male	30	42.9	40	57.1	

Fisher's exact test was performed to assess the association between sex and metastasis. N=339. Note: The n does not correspond to 502 because in some medical records they did not present a report on whether the patient had metastasis or not.

Table 8– Comparison between sex and outcome in young adult patients diagnosed with cancer between 2008 and 2017 at Hospital Universitário Santa Terezinha - (HUST). Joaçaba, Santa Catarina, 2018.

Outcome							
Sex	Treatment/Follow-up		Hospital discharge		Death		P Value
	n	%	n	%	n	%	
Feminino	158	54,7	110	38,1	21	7,3	0,001
Masculino	49	58,3	19	22,6	16	19,1	

Realizado Teste Qui- quadrado de Pearson para avaliar associação entre sexo e desfecho. n =373. Observação: O n não corresponde a 502 pois em alguns prontuários não apresentavam relato do desfecho.

DISCUSSION

In general, cancer is related to age, which is the main risk factor for the development of the disease. In Brazil, a study published in 201512, showed that the average age of cancer diagnosis was 51.9 years, with the lowest average age observed for cervical cancer (35.4 years) and the highest for prostate cancer (65.7 years). In this study, the authors also highlight that there was no significant difference regarding age between men and women taking into account all types of cancer12.

The average age of cancer diagnosis in the population of the present study was 31.6 years considering all types of cancer in both sexes, results that were similar to those found by Benedict et al.11, who reported an average age of 33 years. These data are interesting, since Desandes and Stark13 show an exponential increase in cases of tumors in young adults after the age of 30, which may be associated with greater exposure to carcinogens favoring the cellular mutation for malignancy with increasing age9.

The predominance of females as the most affected by cancer in the young adult population is in agreement with several other studies carried out until then11,14-18 and follows the same trend in the general population19-21. This predominance may be a consequence of the fact that the main tumor types found in this age group are breast and

cervical cancer. It is worth mentioning the fact that frailty is linked to the female sex, which brings with it a much more intense self-care than the opposite sex, so the search for health care occurs more frequently and, thus, the diagnosis is made more easily22.

Regarding the risk factors associated with the population in this age group, the family history of cancer was highlighted in more than half of those who reported this condition (55.7%). This result is superior to that found in the study conducted in São Paulo based on medical records of young adults with cancer, which found 41.7% of the cases were related to family history of the disease 14.

As for the main types of tumors that affect the studied population, our data had great similarities with what is reported in the scientific literature, except for tumors of the brain, spinal cord, and leukemia2. This fact may have occurred because the few studies that evaluated the young adult population includes adolescents from 15 years of age, and in this age group the main cause of cancer is leukemia13,23. The three main types of tumors found in the oncology sector in the 10 years analyzed (breast, cervix, and thyroid) were the same as those found in other studies3,13. Desandes and Stark13 reported a breast cancer frequency of approximately 50% in women aged 30 to 39 years, while Jesus et al.14 reported a thyroid cancer frequency of approximately 25% in patients aged 19 to 29 years, taking into account both sexes.

As for the risk factors of alcoholism and smoking, in the present study, most reported not using them, results similar to those found by Jesus et al.14, who reported a consumption of cigarettes and alcohol in approximately 10% of patients diagnosed with cancer within the young age group. A survey conducted in Brazil showed that by eliminating risk factors related to lifestyle that are related to cancer, there may be a 26.5% decrease in the diagnosis of the disease in the general population and smoking is pointed out as the main one of them followed by an increase in BMI and alcohol consumption24. In the present study, BMI was not related to the development of cancer in this population, since approximately 60% of patients were eutrophic and 27% overweight.

It is worth noting that the types of tumors where obesity is related were not the most prevalent in the population of this study, which may justify eutrophy being the most commonly identified classification. In addition, these data corroborate with the literature that up to now has not mentioned the increase in body mass as a risk factor specifically for the young adult population2.

The treatment that was instituted to deal with the disease varied according to the characteristics of each disease and its staging. Its main purpose is to obtain the patient's cure, in case it is not possible, to prolong their life and offer a better quality of life22.

The treatment most used in dealing with the disease was the isolated use of surgery. Since the majority of tumors were in stage I, surgical treatment, in general, has great chances of solving the problem and for this reason it was the most used option.

As for the types of tumors most found according to sex, similarities were found with other studies regarding the predominance of the breast, cervical25 and thyroid cancers in the female sex3.

As for the male sex, in general, our data diverged. While testicular tumors were the most prevalent in men of this age group, other studies show that this type of tumor is among the most prevalent, together with liver, leukemia, and non-Hodgkin's lymphoma3,25.

Discussing the outcomes, although more than half of the patients are still undergoing treatment or periodic follow-up, 34.6% of young adults with cancer treated in these 10 years were discharged. The tumor types that were most discharged were ovarian and cervical tumors, a fact that may be associated with early diagnosis.

The tumor types that most led young adults to death were rectum and colon tumors

(Table 4). These findings are worrisome, since in recent years studies have shown a significant increase in these tumors in young adults26,27. A study carried out in the United States reaffirms this trend by showing that, since 1980, colon cancer incidence rates have increased from 1.0% to 2.4% annually in patients aged 20 to 39 years and the increase in relation to rectal cancer in this same age group is even greater, 3.2% per year (between the years 1974 to 2013). In view of this, the author even suggests a review regarding the recommended age to start tracking the disease27.

As the majority of tumors were classified as stage I, the chances of a cure soon increase and, consequently, their discharges will occur more frequently. This may explain the significant number of hospital discharges in young adult patients in this study. Survival rates in the most frequent tumors in the young adult population (breast and cervix) when classified at an early stage reach 99% and 92%, respectively, in the United States 2.

Normally, patients with stages 0 and I progress to cure/discharge, while stages III and IV are more likely to progress to death due to the worsening of the clinical situation. Our data show that 43.1% of patients in stage IV ended up progressing to death, and only 2% were discharged.

It is worth mentioning that although deaths account for only 9.9% of the outcomes (table 1), more than half of these deaths (59.6%) occurred in less than 23 months after the diagnosis of cancer, thus, showing how aggressive the disease can be in this age group and the importance of an early diagnosis, which increases the chances of a cure.

The authors Sender and Zabokrtsky28 list some factors that contribute negatively to the survival of young adult patients, among them are the biological and specific differences of cancer in this population in relation to the others, the lack of health services that offer support that transcends necessary practical care, and are also concerned with psychosocial aspects, in addition to the lack of effective participation in clinical trials. The authors add that the search for improvements in cancer results in young adults should aim not only at survival, but also at reducing adverse effects by optimizing the treatments performed and, thus, providing a better quality of life to the patient.

The presence of metastasis was described in 23.9% (table 1) of young adults seen. This percentage is lower than that found in a study carried out in the state of São Paulo with individuals over 25 years old, where 30.1% displayed a metastasis18 and higher when compared to individuals aged 14 to 25 years old who presented a rate of 20% of metastasis29. It is worth noting that the tumors with the highest rates of metastasis were rectal and colon cancers, corroborating with reports that indicate a metastasis rate of up to 75% in patients with colorectal cancer30.

Based on the data presented, it is possible to affirm that although the study population is composed mainly of females, if we analyze the outcome according to sex, deaths occur more frequently in males. This predominance of males in cancer mortality in young adults also occurred in a study carried out from 1997-201215.

As for these data, we can only initially say that cancer in males has a greater potential for aggravation; however, analyzing the overall situation, we now cite as a real and main cause of this problem the failure to track/diagnose this population, thus leading to the discovery of cancer only when the disease is advanced. There are many studies that address the question of the male gender being a minority in health-related care, especially with regards to primary health care, which is considered the user's gateway and the place to perform the screening of various diseases31- 33.

Studies discuss ways to improve male participation in health settings and list several reasons why this reality remains unchanged over the years, including the devaluation of self-care, impatience, shame in exposing oneself,

and the need to maintain one's masculinity intact, showing no weaknesses31-33.

Although the number of patients evaluated in the present study was significant, the study had some limitations, including a single institution, in addition to difficulties in collecting data from medical records that lacked relevant information to the research. However, despite the limitations found, the data analyzed allowed for the characterization of the sociodemographic and clinical-epidemiological profile of young adults with cancer treated at a referral cancer center in the west of Santa Catarina and are relevant, as they contribute to public policies that would be more appropriate to the regional reality of this age group. The importance of these actions to include preventive aspects, screening and early diagnosis, improvement of treatment, and improvement in the patient's quality of life, whether during treatment or after completion are reiterated.

The study also contributes to the scientific environment, as it reveals information that has never been the object of study in this state, opening the way for new studies developed mainly with regards to risk factors associated with the young adult population.

CONCLUSION

Cross-sectional descriptive studies allow assessing the situation of the population at a given time and are essential for health planning. The evaluation of this population made it possible to identify similarities and particularities with the clinical and epidemiological profile of other regions of the country, in addition to pointing out that the predominant profile in the young adult population with cancer is female, with an average age of 31.6 years, with a family history of cancer as main risk factor associated.

The most prevalent tumors were breast, cervix, thyroid, followed by testicular and colon. Stage I was the most found, followed by stage IV, and the more advanced the disease stage, regardless of the tumor type, the greater the probability of death. Tumor cases in males were more aggressive, given the greater number of metastases and deaths in this population.

The analyzed data can contribute to the implementation of public policies aimed at programming measures at different levels of health care and improving care given to the population assisted by the Unified Health System (SUS) in the Midwest region of Santa Catarina, in addition to contributing to the scarce literature on the sociodemographic and clinical-epidemiological profiles of young adult individuals with cancer in Brazilian municipalities.