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Characterization of women with breast cancer treated at a hospital unit

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ABSTRACT

OBJECTIVE

To describe the sociodemographic and clinical aspects of women with breast cancer treated at a hospital.

METHODS

Documentary, descriptive and quantitative study, carried out in a referral hospital unit for the care of people with breast cancer, in Northeastern Brazil. 79 charts of women with breast cancer were analyzed. A form was used that included socio-demographic, clinical and health-related aspects. The data were submitted to descriptive analysis using the BioEstat 3.0 Program.

RESULTS

Approximately 66% are in the 41 to 60 age group. Reproductive characteristics showed that 12.66% of women started menarche from the age of 10, 31 had at least one type of disease identified: hypertension 13 (56.5%), diabetes mellitus 7 (30.4%), allergy 5 (21.7%). Mastectomy was the most frequent surgery (63.2%). The empirical findings reported in this study showed that 30.4% had diabetes mellitus and 56% hypertension. Family history was determined to be an important risk factor for the development of breast cancer.

CONCLUSIONS

The results can be subsidies for the development of larger studies related to the theme, which makes it possible to contribute to increase the visibility of public agencies and health services.

DESCRIPTORS

Population Characteristics. Breast Neoplasms. Women. Hospital.

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INTRODUCTION

Breast cancer (CM) is not considered a single disease, but a set of breast diseases that have different histopathological, genetic, and clinical characteristics. More than 80% of breast cancers originate in the ductal epithelium, while the minority originates from the lobular epithelium. Breast carcinoma develops when cells of some mammary structures, mainly the lobes and ducts, due to facts that are not yet well understood, start to divide abnormally and uncontrollably, forming a mass of independent tissue, the tumor[1].

CM does not usually hurt and the woman herself can perceive the lump through self-examination. The breasts may also be asymmetrical, deformed, or there may still be skin retraction and nipple discharge. In advanced cases, the appearance of wounds, such as ulcers, with an unpleasant odor, is common[2].

Research has shown that comorbidities, such as diabetes mellitus (DM) and systemic arterial hypertension (SAH), also influence the results of CM. It has been reported that 16% to 20% of CM patients had type 2 DM at the time of cancer diagnosis. Still, it suggests that several conditions related to DM, including insulin resistance, hyperinsulinemia, and chronic inflammation, may be associated with the results of CM[3].

DM, by way of example of chronic non-communicable diseases (NCDs), is an important and growing public health problem. Its incidence and prevalence are increasing worldwide, reaching epidemic proportions. The disease is associated with complications that compromise the productivity, quality of life and survival of the patients affected by it, in addition to the high costs for the control of its complications. It is added that the relative risk of death from cardiovascular events, adjusted for age in diabetics, is three times higher than for the general population[4].

Considered a public health problem, the increased incidence of NCDs has become an important research target, and the investigation of these health conditions among groups undergoing hospital treatment for cancer can be useful in implementing qualified care. Thus, this study aimed to describe the sociodemographic and clinical aspects of women with breast cancer treated at a hospital.

METHODS

Documentary, descriptive and quantitative study carried out in a referral hospital unit for the care of people with breast cancer, in the Northeast of Brazil.

The study population consisted of all women with breast cancer treated at the hospital between the years 2010 and 2015. A total of 108 medical records corresponding to the ICD 50.9 - malignant breast cancer, unspecified, were made available. However, only 79 medical records were used in the study, due to the lack of information and / or death that prevented the signing of the Informed Consent Form (ICF).

Data collection took place between the months of January to December 2016. The research instrument used was a form composed of 28 items, divided into general data, reproductive characteristics, behavioral variables, clinical data and anthropometric data.

Descriptive statistical analysis of the collected data was carried out, with the aid of the Bioestata 3.0 program. The data for analysis were then arranged in tables.

The study was previously evaluated and approved by the Research Ethics Committee (CEP) and obtained Opinion No. 1,613,784.

RESULTS

79 medical records of women with breast cancer treated at the investigated unit were analyzed. Sociodemographic characteristics are shown in Table 1.

Table 1. Sociodemographic characteristics of women with cancer seen at a hospital. Teresina, PI, Brazil, 2010 - 2015.

Variable		n	%
Age rage	30 |---- 35	2	2,53
	35 |---- 40	3	3,80
	40 |---- 45	5	6,33
	45 |---- 50	13	16,46
	50 |---- 55	20	25,32
	55 |---- 60	16	20,25
	60 |---- 65	15	18,99
	65 |---- 70	5	6,33
Marital status	Single	13	16,46
	Married	57	72,15
	Separate	1	1,27
	Widow	3	3,80
	Others	5	6,33
Ethnicity*	White	11	14,10
	Black	2	2,56
	Parda	57	73,08
	Others	8	10,26

Source: Research data.

* Missing data (n = 1).

The data expressed in Table 2 report the reproductive characteristics of the study participants.

Table 2. Reproductive characteristics of women with breast cancer treated at a hospital. Teresina, PI, Brazil, 2010 - 2015.

Variable	n	%
Age of menarche	<10	1
	≥10	10
	No registry	65
Pregnancy *	1	3
	2	6
	More than 2	6
	No registry	60
	None	3
Abortion occurrence	Yea	4
	No	12
	No registry	63

Source: Research data.

* Missing data (n = 1).

Table 3 presents data related to the health conditions and clinical aspects of the women attended at the investigated unit for the treatment of CM.

Table 3. Health conditions and clinical aspects of women with breast cancer treated at a hospital. Teresina, PI, Brazil, 2010 - 2015.

Variable		n	%
Type of disease *	Hypertensive	13	56,52
	Diabetic	7	30,43
	Allergic	5	21,74
	Others	6	26,09
Family history	Hypertension	18	22,78
	Diabetes	2	2,53
	Cancer	20	25,32
	Breathing problems	1	1,27
	Others	2	2,53
	None	53	67,09
Types of medication *	Captopril	4	21,05
	Insulin	3	15,79
	Losartan	3	15,79
	Others	14	73,68

Type of cancer	Infiltrating ductal carcinoma	60	75,95
	Ductal carcinoma in situ	6	7,59
	Metaplastic carcinoma	2	2,53
	Infiltrating lobular carcinoma	3	3,80
	Others	8	10,13
Breast location	Right	40	50,63
	Left	39	49,37
Metastasis	Yea	32	40,51
	No	47	59,49
Type of surgery	Mastectomy	50	63,29
	Resection	1	1,27
	Catheter insertion	17	21,52
	Serectomy	5	6,33
	Others	6	7,59
Chronic kidney dysfunction	Yea	2	2,53
Type of disease *	No	32	40,51
	No registry	45	56,96

Source: Research data.

* Question with multiple choice answer.

DISCUSSION

The data indicate that, of the universe of women studied, about 25% are in the age group from 50 to 55 years old, and a smaller number in the age groups from 30 to 35 years old, a finding evidenced in another study[5].

CM is relatively rare before the age of 35, above this age group its incidence grows rapidly and progressively. Statistics indicate an increase in its incidence in both developed and developing countries[6].

The age group has been considered a risk factor for several types of cancers, the age group comprising 45 to 64 years includes 57.7% of cancer patients. If it is considered that this corresponds to a period of productive life, it can be deduced that there is a great economic impact for society[7].

Another important finding was related to ethnicity, 73% of them are brown while 10% have other ethnicities. A study[8] observed that women of black and brown color, respectively, had a 2.5 times and 1.5 times higher risk of developing CM, despite not having statistical relevance.

Regarding marital status, most of the participants are married, corroborating a previous study[9], this data is of great relevance, since the partner has an important role in accompanying the woman in the diagnosis and treatment of the disease.

Still, 12.66% of women started menarche from the age of 10. The means of pregnancies were 3.85% for one delivery and 7.69% for two or more births, only 5.06% had an abortion, another study[10] revealed close data, meeting the expectation of a greater probability of development of CM in women who had menarche at age 11 or younger.

A study[11] suggests an association between age at menarche and risk of breast cancer. Women who experienced menarche at age 14 or older were 24% less likely to develop CM before age 40 and were 11% less likely to develop breast cancer at age 40 or older. Women with first birth, 30 years of age or older, were at a higher risk of CM, before menopause compared to nulliparous women.

Regarding the obstetric history, the missing data bring an important discussion about the importance of the nursing record. For example, 60 medical records were without records about previous pregnancies. It is worth mentioning that lactation is considered a convincing protective factor for malignant breast cancer, both in pre-menopausal and post-menopausal women. However, there is still no consensus on the duration of breastfeeding that this protection against has CM[12].

Currently, several risk factors related to reproductive history have been identified, such as nulliparity, late age at first birth (after age 30), early menarche (before age 11), late menopause (after age 50), hormone replacement therapy and prolonged use of oral contraceptives. However, the age factor remains one of the most important, with the incidence of CM increasing rapidly until the age of 50 and, later, it occurs more slowly[13].

Of the 79 women included in the present study, 31 had at least one type of disease identified: SAH 13 (56.5%), DM 7 (30.4%), allergies 5 (21.7%) and 6 others (26%), data corroborated by another study[14].

SAH is the most common comorbidity in cancer patients, and its incidence increases with chemotherapy. The pathogenic mechanisms that link arterial hypertension to CM have been evaluated, and it is proposed that changes in calcium metabolism, with increased expression of inositol triphosphate and cytosolic calcium, are involved in the pathogenesis of SAH and the initial mechanisms of cell proliferation that are activated by oncogens[15].

Mota[16] suggests that cancer patients, especially colon, liver, pancreas, and breast cancer patients who have DM2 or some degree of insulin resistance have an increased risk of mortality. Hyperinsulinemia is a risk factor that contributes to death, since there is a relationship of cell proliferation in response to growth factors, such as the Insulin-like Growth Factor (IGF-1), especially in patients with CM, regardless of staging.

Regarding the family history of breast cancer before the age of 40, bilateral breast cancer, ovarian cancer, male breast cancer (first-degree relative), among other factors, demonstrate that genetic predisposition is responsible for 10% of cases of breast cancer. The genes breast cancer 1 (BRCA1) and breast cancer 2 (BRCA2) are related to the onset of the disease[17].

A study[18] found that 219 women (41.4%) had a personal history related to increased risk for CM, with 110 (20.7%) in first-degree relatives.

Based on these characteristics, family history constitutes a risk for CM. The family history is easy to investigate in anamnesis and surveys, so it is one of the main indicators for the development of differentiated screening in women who present it. However, as it is a low prevalence risk factor and not all women who present it will develop CM, very few cases will be detected in its initial phase, if this is the only criterion used[13].

As for the family history of diabetes and respiratory problems, the rates found were of low relevance with averages 2.53% and 1.27%, respectively. This percentage should be considered the high rate (67.9%) of medical records with no record for these diseases, which suggests a gap in information that makes it difficult to investigate the real association index of family history.

Regarding the types of cancers, carcinomas are currently divided into non-invasive or in situ (ductal and lobular) and invasive carcinomas (ductal, lobular, tubular, colloid, medullary and papillary), the main findings were ductalin filtrating carcinoma (75, 95%), ductalin situ carcinoma (7.59%), infiltrating lobular carcinoma (3.80%) and metaplastic carcinoma (2.53%). The prevalence of cases with ductal infiltrating carcinoma is like another study[19]. Gonçalves et al.[20] report that of the 146 medical records that described the type of breast cancer, invasive ductal carcinoma (ICD) prevailed with 118 cases. The literature[19-20] reinforces a percentage considered high, observed in the present study.

The classic infiltrating ductal carcinoma, in addition to being the most common type of malignant tumor of the breast, is also the one with the worst prognosis, especially those of high histological grade. The infiltrating lobular carcinoma is the second most frequent type, with a slightly better prognosis than the ductal one. What agrees with the histological types found in our study, where the infiltrating ductal, lobular infiltrating and spinal cord was more frequent[21].

The presence of metastases in the CM is a predictive factor

for the survival and recurrence of the disease, where it is possible to notice that 40.5% of the women in the study presented metastasis. CM is responsible for approximately 10-15% of cases of brain metastases. The second most frequent type of distant metastasis due to CM is bone metastasis, which causes high morbidity due to pain, impaired mobility, hypercalcemia, pathological fracture, compression of the dural sac, spinal cord or nerve roots and bone marrow infiltration[22].

Another very important result was the type of surgery performed on women with CM - mastectomy - equivalent to a percentage of 63.2%.

Breast surgery is the main treatment, being used in most cases. Women who undergo a surgical process, such as mastectomy, have a remarkable experience in their lives. The reality of facing a mutilated body awakens in the woman several negative feelings, with which she feels disturbed to face a mutilated body[23]. These feelings are also present during the treatment, compromising physical, emotional, and functional well-being[24].

Breast removal remains the most used treatment, even though it is responsible for a series of events and changes experienced by patients. It is an aggressive surgical process, which aims to control tumor growth, through the mechanical removal of all malignant cells present in primary cancer. The type of breast removal surgery will depend on the clinical and histological stage of the tumor[25].

CONCLUSION

The study revealed that most participants are in the age group of 45 to 65 years, with 30.4% with DM and 56% with SAH. Mastectomy was the most widely adopted surgical procedure. Family history was determined to be an important risk factor for the development of CM.

The results of this study contribute to a better understanding of the clinical aspects of women with CM. However, the results presented and discussed must be considered from the perspective of some methodological limitations: as it is a cross-sectional research, the variables identified can be modified over time, as interventions and strategies are implemented; and, for carrying out the research in a hospital located in a local reality in the Northeast Region of Brazil.

However, this research provides support for the development of larger local, regional, and national studies on the need to disseminate the clinical aspects of women with CM, through more in-depth statistical methods and techniques.

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