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ORIGINAL ARTICLE

SURVEY ANALYSIS OF WOMEN WITH BREAST CANCER

ANÁLISE DE SOBREVIDA DE MULHERES COM CÂNCER DE MAMA

ANÁLISIS DE SOBREVIDA DE MUJERES CON CÁNCER DE MAMA

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ABSTRACT

Objective: to evaluate the survival, in five years, of women with breast cancer. ***Method:*** quantitative, descriptive, exploratory, documental study, consisting of 62 charts of women attended in an Extension Project. Data were analyzed by Fisher's Exact Test, Kaplan Meier Curve and software R. ***Results:*** 61.29% (n = 38) had breast cancer aged 50-69 years; 35.49% (n = 22) were metastasized; 37.1% (n = 23) of them died, and the greatest cause was 87% breast cancer (n = 54). The survival rate was 80%, with an average time of 11.27 years. Women who had metastases had 3.67 more chances of dying (p = 0.00658), therefore, they had a shorter survival (p = 00171). ***Conclusion:*** the incidence of breast cancer was higher in patients aged 50-69 years, which is in agreement with the coverage of screening programs recommended by the Ministry of Health. ***Descriptors***: Breast neoplasms; Survival analysis; Oncology Nursing.

RESUMO

Objetivo*:** avaliar a sobrevida, em cinco anos, de mulheres com câncer de mama. ***Método*:** estudo quantitativo, descritivo, exploratório, documental, constituído de 62 prontuários de mulheres atendidas em um Projeto de Extensão. Os dados foram analisados pelo Teste Exato de Fisher, Curva de Kaplan Meier e *software* R. ***Resultados*:** 61,29% (n=38) tiveram câncer de mama com idade entre 50-69 anos; 35,49% (n=22) foram acometidas por metástase; 37,1% (n=23) delas morreram, sendo que a maior causa foi o câncer de mama 87% (n=54). A sobrevida foi de 80%, com tempo médio de 11,27 anos. As mulheres que tiveram metástase possuíam 3,67 mais chances de morrer (p=0,00658), por isso, elas tiveram uma sobrevida menor (p= 00171). ***Conclusão: a incidência do câncer de mama foi maior em pacientes com faixa etária de 50-69 anos, o que está em acordo com a cobertura de programas de rastreamento preconizados pelo Ministério da Saúde. ***Descritores*:** Neoplasias da Mama; Análise de Sobrevida; Enfermagem Oncológica.

RESUMEN

Objetivo: evaluar la supervivencia, en cinco años, de mujeres con cáncer de mama. ***Método:*** estudio cuantitativo, descriptivo, exploratorio, documental, constituido de 62 prontuarios de mujeres atendidas en un Proyecto de Extensión. Los datos fueron analizados por la Prueba Exacta de Fisher, Curva de Kaplan Meier y software R. ***Resultados:*** 61.29% (n = 38) tuvieron cáncer de mama con edad de 50-69 años; El 35.49% (n = 22) fueron acometidas por metástasis; 37.1% (n = 23) de ellas murieron, siendo que la mayor causa fue el cáncer de mama 87% (n = 54). La sobrevida fue del 80%, con tiempo promedio de 11.27 años. Las mujeres que tuvieron metástasis tenían 3.67 más veces de morir (p = 0.00658), por lo, que tuvieron una supervivencia menor (p = 00171). ***Conclusión:*** la incidencia del cáncer de mama fue mayor en pacientes con edades de 50-69 años, lo que está en acuerdo con la cobertura de programas de rastreo preconizados por el Ministerio de Salud. ***Descriptores***: Neoplasias de la Mama; Análisis de la Supervivência; Enfermería Oncológica.

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INTRODUCTION

Breast cancer is considered the second most common type among women in Brazil, second only to non-melanoma skin cancer. According to the National Cancer Institute José Alencar Gomes da Silva (INCA), in the years 2016 and 2017, 57,960 new cases of this disease are predicted, being this the main cause of cancer death in women in Brazil.[1-3]

However, when breast cancer is detected in early stages, the chances of treatment and cure increase significantly, with a survival rate of 97% in five years.[4-6]

In this sense, strategies such as clinical examination of the breasts and mammography are effective in the tracking and control of this disease, since the less advanced stages at the time of diagnosis increase the probability of success in the treatment and, consequently, increase the survival of the patients. patients.[7]

Survival is defined as the time elapsed between the start of treatment and the progression of disease or death from any cause.[9-11] It is clear that it may vary from one person to another, this disparity being related to the clinical course of the disease and other factors, such as the age of the patient at the time of diagnosis, cancer staging, patients' access to health services, and socioeconomic conditions.[12]

The study showed that advanced staging of breast cancer decreases the chances of a person surviving, since women who presented stages IIa, IIb, IIIa, IIIb and IV at the time of diagnosis had survival rates of 80%, 70%, 50 %, 32% and 5% respectively, demonstrating that survival is strongly influenced by the extent of breast cancer.[6]

Another study pointed out that breast cancer survival rates in developing countries have been lower than those in developed countries. This is a fact that may be related to late diagnosis, limited access of the population to health services and treatment offered in some regions.

In view of these findings, associated to experiences lived as members of the Nucleus of Education, Research and Extension Women and Breast Cancer - MUCAMA Project, it was observed that to date the survival of these women has not been investigated.

Thus, it has become important to approach this topic, since it may make it possible to fill knowledge gaps, because, in the national literature, there is a shortage of studies that analyze the survival of patients with breast cancer, which makes it difficult to know about this indicator in the Brazilian population.

OBJECTIVES

- To evaluate the survival, in five years, of women with breast cancer.
- Investigate the mortality and metastasis rate of women with cancer.
- Identify the types of cancer treatment received by women.

METHOD

A quantitative, descriptive, exploratory, documentary study carried out by analyzing the medical records of women diagnosed with breast cancer, from 2006 to 2011, at the MUCAMA Project, located at a Public University in the south of Minas Gerais, Brazil.

The selection of medical records was obtained by means of the analysis of the registry database of that institution. In the selection of the sample, the 132 medical charts of patients with breast cancer in the MUCAMA project were surveyed.

It was established as inclusion criteria: to have been a user of the MUCAMA project from January 2006 to January 2011. Subsequently, it was observed that, of the total sample, 62 of the patients' medical records met this criterion.

To estimate survival, in years, the period between the date of diagnosis (informed by them at the time of enrollment) to the date of the last recorded care or until the occurrence of death was considered.

Data from the 62 charts were collected from February to September 2016 by filling out a semi-structured script created by the authors with the following variables: age at diagnosis, type of treatment, metastasis, survival time and cause of death death.

Sociodemographic variables (based on information recorded at the time of the first visit) were investigated, such as age, date of diagnosis, type of treatment (surgery, chemotherapy, radiotherapy or hormone therapy), presence of metastasis, and death.

The data obtained were organized in the spreadsheet, allowing the generation of the final database. Regarding the data analysis stage, the categorical variables were presented as absolute frequency (f) and percentage frequency (%) and the continuous variables were presented as mean ± standard deviation.

The Kaplan-Meier curve was used to estimate the survival probability of women with and without metastasis in the period from 2006 to 2011. After the estimation of the

curves, the Logrank test was applied to evaluate the equality of the two survival functions. The Cox model was used to evaluate the survival time of patients related to the variables age, metastasis and treatment received.

For the treatment of breast cancer, the patients underwent surgery, chemotherapy, radiotherapy and hormone therapy. In order to analyze which of these therapies were the most used in this group of women, the data were organized with the letter t (referring to the treatment), followed by the ordinal numbers 0, 1, 2, 3, 4, 5, 6 and 7, as will be explained below: none (t0); chemotherapy (t1); radiotherapy (t2); hormone therapy (t3); chemotherapy and radiation therapy (t4); chemotherapy and hormone therapy (t5); radiotherapy and hormone therapy (t6); chemotherapy, radiation therapy and hormone therapy (t7).

In the initial analysis, all variables were included in the model, being removed and replaced later, one at a time, according to the level of statistical significance of ($p < 0.05$).

In addition, all possible interactions among the variables were tested. In addition, it should be noted that all analyzes were performed using the statistical software Software R, version 3.3.3.

This research was conducted in accordance with the ethical standards required by resolution 466/2012. Approved by the Research Ethics Committee of the Federal University of Alfenas / UNIFAL-MG according to the opinion 1,291,340 and the Certificate of Presentation for Ethical Appraisal - CAAE number: 49986015.0.0000.5142.

RESULTS

Of the 62 study participants, 11.29% (n = 7) were diagnosed with cancer aged <40 years; 20.97% (n = 13) aged 40-49 years; 61.29% (n = 38) aged 50-69 years and only 6.45% (n = 4) were diagnosed at age ≥70 years. As to their place of residence, 93.5% (n = 58) were from the city of Alfenas-MG and 6.46% (n = 4) of them resided in nearby localities.

Regarding survival, it was verified that in a period of five years, the patients in this study had a survival rate of 80% and that the average life time for them, after diagnosis of breast cancer, was 11.27 years , with significance level of 5%, as shown in Figure 1.

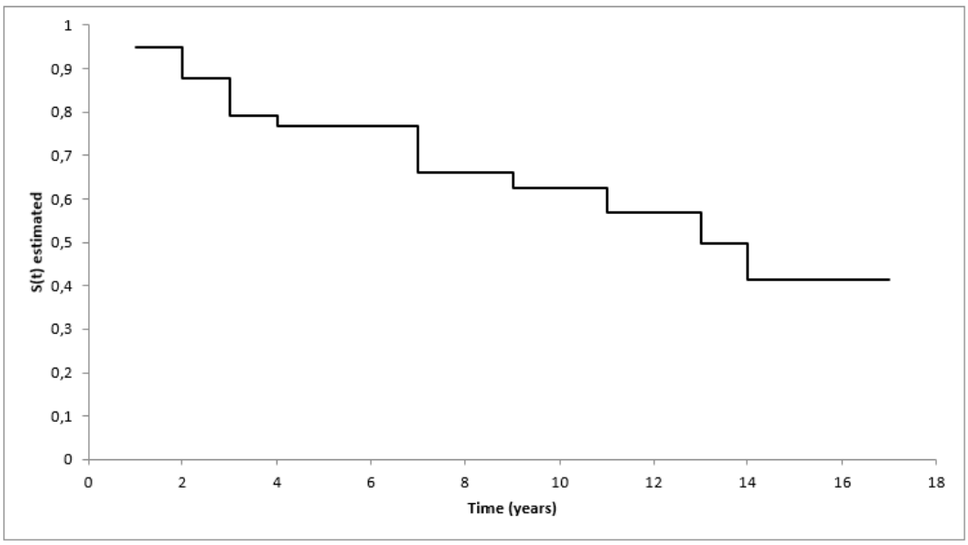

Figure 1. Kaplan-Meier survival curve. Alfenas (MG), Brazil, 2017.

The Cox model was used to determine which of the covariates were determinant in the outcome of patient survival. It was verified that the ages of the patients at the time of diagnosis were not significant, since all had ages very close to each other, except for one patient who was 28 years old (p = 0.997).

When investigating the occurrence of metastasis, it was verified that 64.51% (n = 40) of the patients had not been affected by this complication, while the remaining 35.49% (n = 22) presented metastasis.

After the results of these variables, it was found that women who metastasized had a rate of 3.67 times more dying than those who did not have this complication, with a significance level of 5% (p value = 0.00658) .

When the metastasis was related to the probability of survival, it was found that women with metastasis had a shorter survival than those without metastasis. For this, the Logrank test was applied. When comparing the p = (00171) value of the curves, it is concluded that the probability of a person

without metastasis surviving is higher than the other, with significance level of 5%, according to figure 2.

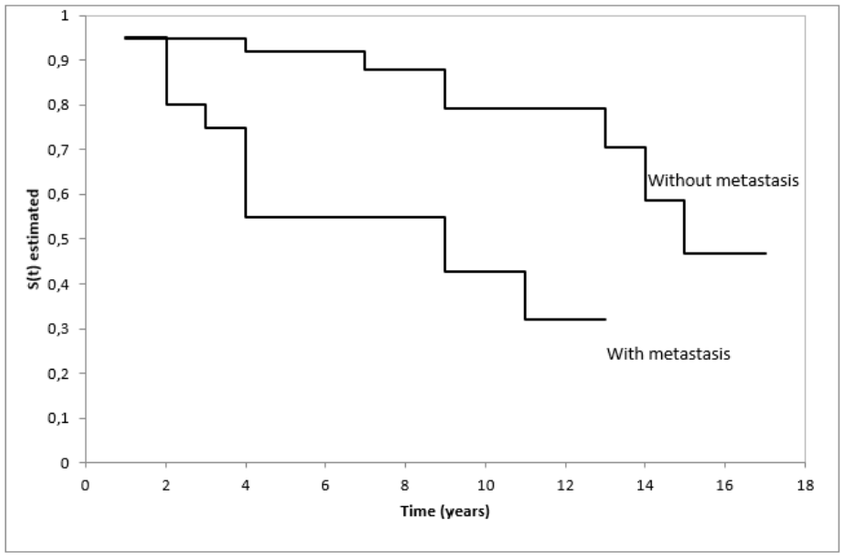

Figure 2. Relation between metastasis and survival. Alfenas (MG), Brazil, 2017.

The majority of patients 93.55% (n = 58) underwent the surgical procedure. In the covariables of treatment types, it was identified that the results were not significant, which can be explained by the small number of repetitions of the treatments t2, t3 and t5, one few women have undergone these therapies.

It was found that 62.90% (n = 39) of the patients were alive and that 37.1% (n = 23) of them died, of which one (4.34%) died aged <40 years; 26.1% (n = 6) died aged 40-49 years; 65.22% (n = 15) died aged 50-69 years and one (4.34%) died aged ≥70 years.

Regarding the cause of mortality, 87% (n = 54) died due to cancer and its complications, and the remaining 13% (n = 8) died of other causes such as cerebral aneurysm, heart problems and pulmonary emphysema.

DISCUSSION

Regarding the age of women at the time of diagnosis of breast cancer, the predominant age group was 50-69 years (61.29%). Other studies also found parallel results. In Goiânia, a slightly lower incidence rate was observed, of 47.8%, and in Juiz de Fora, the average found was 56.4 years.[13-4]

Thus, it is verified that such results are in agreement with the data existing in the literature, since high age corresponds to one of the most important risk factors in the causality of breast cancer. Therefore, routine mammography is recommended for women aged 50-69 years.[5,7]

The overall survival rate after five years in this study was 80%, similar to a study conducted in the city of Juiz de Fora, Minas Gerais, MG, which presented a survival rate of 81.8% in five years14. Other studies in regions of the country presented somewhat lower indexes: Curitiba-PR, Joinville-SC and Goiânia-GO presented survival rates of 61%, 78.6% and 77.3%, respectively, in the five-year period.[12 - 3.15]

In addition, it has been observed that in recent years there has been a significant increase in the survival of patients with breast cancer, since this increase may be related to the expansion of screening programs and advances in treatments that play an important role early detection.[16]

The implementation of Public Policies such as the National Cancer Care Policy in 2005 and the Action Plan for the Control of Colo and Breast Cancer, created between 2005 and 2007, contributed to an incentive to track cancer control of breast, since these actions allowed greater access of the target population to the health services, the different means of early detection and, also, extended the services of reference and counterreference.[17]

The evolution of the National Policy Plan for Women (PAISM), created in 2013, subsidized improvements in women's health conditions, since this policy favored access to health promotion services and comprehensive care with emphasis on cancer screening mammary and gynecological.[18-9]

When analyzing the survival difference of the patients who presented metastasis in relation to the others, it was observed that the women who presented this complication were 3.67 times more likely to die, which is in line with another study that found that 19, 6% of metastatic patients, most of them 55.6%, died, corroborating that the presence of metastasis may negatively reflect survival rates.[20]

Regarding the surgical treatment, although the result was not significant, a study showed that its effects may contribute to a better prognosis of patients with breast cancer, resulting, therefore, in a higher survival rate.[21]

In addition, studies have shown that the best prognosis for breast cancer was found when the surgical procedure was associated with other treatments such as radiotherapy, chemotherapy and hormone therapy, which may be associated with the fact that these therapies help in the reduction of metastases to distance.[22]

The mortality rate in this study was higher in women aged 50-69 years, 65.22% (n = 15), of whom 87% (n = 54) of the causes of mortality were cancer-related and its complications. Authors have reported similar results. In Juiz de Fora, MG, a mortality rate of 74.3% was observed, and in Goiânia, a mortality rate of 73.7% was observed in women aged 50 to 69 years, corroborating that even after treatment, relapses or other types of cancer may occur. However, it is important to note that mortality due to circulatory diseases can occur due to innumerable factors such as the age of women, the side effects of treatments or due to the presence of preexisting diseases.[14,23]

CONCLUSION

The incidence of breast cancer was higher in patients aged 50-69 years, which is in agreement with the coverage of screening programs recommended by the Ministry of Health.

After analyzing the difference in survival between metastatic and non-metastatic patients, such data revealed worrying results, emphasizing that the fact that a woman has metastasis decreases her chances of surviving.

80% survival values were found for the participants of this study, probably reflecting the attendance of the Family Health Strategies of the municipality, which has performed an active search, offered mammography to the population and ensured the continuity of care through referral services and counterreference.

During the development of this study, difficulties were encountered in collecting data, through medical records, due to the lack of relevant information or incomplete data, such as the stage of the patients at the time of diagnosis, which prevented the analysis of the correlation between stage and survival.

Thus, these situations reaffirm the need to raise awareness and stimulate health professionals to correctly and complete the information in patients' records, in order to support future research, as well as to facilitate the continuity of care.

Although survival data are relatively good, there is a need to continue studies that deepen the factors that favor improved survival, since professionals can become aware of the importance of carrying out health education actions and offer conditions of care appropriate to the needs that may arise during the disease.

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