International
Journal of
**Health
Science**

EPIDEMIOLOGICAL PROFILE OF BREAST CANCER MORTALITY IN NORTHEAST BRAZIL FROM 2017 TO 2021

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INTRODUCTION

Cancer is a generic term for a large group of diseases that can affect any part of the body. Other terms used are malignant tumors and neoplasms. A defining characteristic of cancer is the rapid creation of abnormal cells that grow beyond their usual limits and can invade adjacent parts of the body and spread to other organs, a process referred to as metastasis. Metastasis is the leading cause of death from cancer (Cancer).

The process of cancer formation is called carcinogenesis or oncogenesis and, in general, happens slowly, and it can take several years for a cancer cell to proliferate and give rise to a visible tumor. The cumulative effects of different carcinogens or carcinogens are responsible for tumor initiation, promotion, progression and inhibition. Carcinogenesis is determined by exposure to these agents, at a given frequency and period of time, and by the interaction between them (ABC do [...], 2020, p.18)

Breast cancer is the type that most affects women around the world, both in developing and developed countries. Around 2.3 million new cases were estimated for the year 2020 worldwide, which represents around 24.5% of all types of neoplasms diagnosed in women. Incidence rates vary between different regions of the planet, with the highest rates in developed countries (October [...]).

For Brazil, 73,610 new cases of breast cancer were estimated in 2023, with an estimated risk of 66.54 cases per 100,000 women. Breast cancer also ranks first in cancer mortality among women in Brazil, with an age-adjusted mortality rate, by the world population, for 2021, of 11.71/100 thousand (18,139 deaths). The highest incidence and mortality rates are in the South and Southeast regions of Brazil (October [...])

Aging is the main risk factor. Other factors linked to a woman's reproductive life, behavior and genetics or heredity, as well as regular alcohol consumption and excess body fat, increase the risk of developing the disease. On the other hand, practicing physical activity and breastfeeding reduce the risk of developing this type of cancer (ABC do [...], 2020, p. 23).

The most common symptom of breast cancer is the appearance of a lump, which is generally painless, hard and irregular, but there are tumors that are soft, globular and well defined. Other signs of breast cancer are orange peel-like skin edema; skin retraction; pain, nipple inversion, hyperemia, peeling or ulceration of the nipple; and papillary secretion, especially when it is unilateral and spontaneous. The secretion associated with cancer is generally transparent and may be pink or reddish due to the presence of red blood cells. Palpable lymph nodes may also appear in the armpit (Conceito [...], 2022).

A lump or other suspicious symptom in the breasts must be investigated to confirm whether or not it is breast cancer. For investigation, in addition to clinical breast examination, imaging tests may be recommended, such as mammography, ultrasound or magnetic resonance imaging.

Diagnostic confirmation, however, is only made through biopsy, a technique that consists of removing a fragment of the nodule or suspected lesion through punctures (needle extraction) or minor surgery. The material removed is analyzed by the pathologist to define the diagnosis (Cancer [...]).

METHODOLOGY

This is an observational, retrospective study, in which data were collected from the DATASUS Mortality Information System (SIM), in October 2023. Code C50, from the International Classification of Diseases, 10th revision (ICD- 10), which refers to malignant neoplasm of the breast. Sex, color/race and age

group were the variables observed. The region investigated was the Brazilian Northeast from 2017 to 2021.

RESULTS

In the period from 2017 to 2021, 19,958 deaths due to malignant breast neoplasia were reported, with 2021 being the year with the highest percentage of victims, corresponding to 21.1% of the total. The year in which the lowest number of deaths was recorded in the period studied was 2017, with 18.6% of cases.

Breast cancer is predominant in females, and the number of deaths corresponds to 98.6% of the total cases when looking at the gender category in northeastern Brazil. In men, 275 deaths were recorded in the period from 2017 to 2021.

As for color/race, the one that was most affected was the brown race, represented by 57.2% of cases, followed by the white race recording 30.5% of the total number of deaths in the period studied; The race/color that was least affected was indigenous, with only 0.2% of victims of the disease.

The age group that was most reported in relation to the number of deaths due to breast neoplasia was that between 50 and 59 years old, representing 24.4% of cases, followed by those aged 60 to 69 years old appearing with 20.6% of cases. victims. It is also possible to verify that from 15 to 39 years old the number of deaths decreases when compared to older women, as it was the age group that had its life shortened least by the disease, with 7.4% of cases.
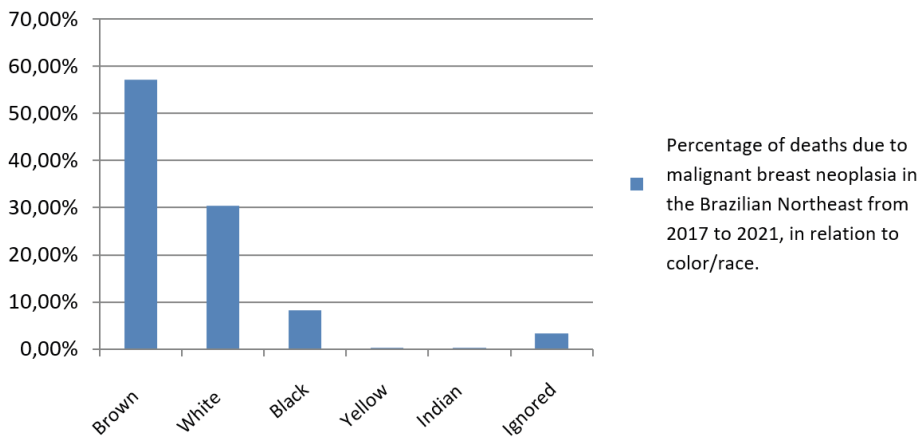
DISCUSSION

According to the present study, the Brazilian Northeast presents, in the period from 2017 to 2021, an epidemiological profile of mortality due to breast neoplasia in which brown women and women over 50 years of age are the most victimized by this disease, with an increase in the number of of deaths when comparing the initial year and the final year of this study. It is also possible to conclude that the number of men victimized corresponds to just over 1% and that people under 40 are the least affected, as the incidence of death increases from this age onwards.

In Brazil, breast cancer is also the most common type of cancer in women in all regions, after non-melanoma skin cancer. Rates are highest in the most developed regions (South and Southeast) and the lowest is observed in the North region. In 2023, it is estimated that there will be 73,610 new cases of the disease (INCA apud Conceito [...], 2022).
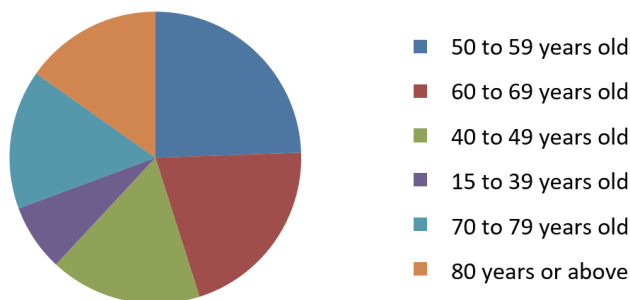
Breast cancer is also the leading cause of cancer death in women in Brazil. The incidence and mortality from breast cancer tend to increase progressively after the age of 40 (INCA apud Conceito [...], 2019).

When diagnosed at an early stage, there is a greater chance of a cure, providing women with a healthy and long-lasting life. In this context, the Pink October campaign plays a crucial role in disseminating information about breast cancer throughout the world. Mainly, it has become an annual and powerful reminder about the need for regular exams for screening and early detection of the disease (Cancer [...]).

The international awareness movement for early detection of breast cancer, Pink October, was created in the early 1990s, when the symbol of breast cancer prevention — the pink ribbon — was launched by the Susan G Foundation Komen for the Cure was

Graph 1-Percentage of deaths due to malignant breast neoplasia in northeastern Brazil from 2017 to 2021 in relation to Color/Race

- 50 to 59 years old
- 60 to 69 years old
- 40 to 49 years old
- 15 to 39 years old
- 70 to 79 years old
- 80 years or above

Graph 2-Percentage of deaths due to malignant breast neoplasia in the Brazilian Northeast from 2017 to 2021 by age group

distributed to participants in the first Race for the Cure, held in New York (USA) and, since then, promoted annually. The period is celebrated in Brazil and abroad with the aim of sharing information and promoting awareness about breast cancer, in order to contribute to reducing the incidence and mortality from the disease (October [...]).

Early diagnosis allows for a better prognosis for treatment and a reduction in mortality due to the disease. Early detection is an activity within the scope of Primary Health Care. Mammography can identify nodules in the breasts even before they are palpable. In other words, they would possibly not be noticed during self-examination or routine consultation (Cancer [...]).

The recommendation from the Ministry of Health is that women between 50 and 69 years of age undergo a mammogram every two years. In specific situations, health professionals may request the exam at a younger age or at a shorter interval (Cancer [...]).

Therefore, it is important that the general population and healthcare professionals recognize the warning signs of the most common cancers, which can have a better prognosis if discovered early. Most cancers can be diagnosed early through evaluation and referral after the first signs and symptoms. Screening is an action aimed at the population without symptoms of the disease, which aims to identify cancer in its pre-clinical phase (Cancer [...]).

CONCLUSION

Breast cancer is an important disease in Brazil and the world, being the main neoplasm that affects women, after non-melanoma skin cancer, therefore, strengthening and making screening and early diagnosis methods accessible are imperative for success therapy and the reduction in mortality from this disease in Brazil. Since the number of deaths increases considerably after the age of 40 and that brown and white women are the most affected, respectively, health campaigns on this topic must be aimed at this population, especially in primary health care, as well as training and promote continued education family health strategy teams represent a good strategy in combating the disease in the Brazilian Northeast.

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