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Epidemiological analysis of the impact of the COVID-19 pandemic on the diagnosis of breast cancer in Northern Brazil

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Objective: This study aimed to analyze Brazilian statistical data on the impact of the COVID-19 pandemic on the diagnosis of breast cancer in all age groups, served in the states of the northern region of Brazil. **Methodology:** This epidemiological, descriptive, quantitative, and comparative study was carried out from January 2018 to December 2021 based on the data collected from the Cancer Information System (SISCAN). Mammograms were analyzed in women in the states of the northern region of Brazil presenting suspicious lesions by the systematization Best Imaging – Reporting and Data System (BI-RADS 4 and 5). Comparing mammograms performed in the period 2018 and 2019 (pre-pandemic) and, 2020 and 2021 (pandemic years), analyzing the states: Amazonas, Pará, Acre, Roraima, Rondônia, Amapá, and Tocantins. **Results:** In total, 20,2579 mammograms (2018 and 2019) and 190,219 (2020 and 2021) were performed, a drop of 7.2%. In the pre-pandemic period, 1.1% of the diagnoses of suspected injuries increased to 1.3% in the pandemic period. According to the data found, only Acre and Amapá increased the number of mammograms in the pandemic period (from 10,043 to 19,941 – Acre, 4,395 to 5,560 – Amapá), increasing 2.67 times the number of suspicious lesions in Acre and 3.97 times in Amapá. In Roraima, Pará, and Tocantins, the absolute number of diagnoses decreased in the BI-RADS 4 and 5 categories. However, it maintained the proportion of diagnosis within the mammograms performed. Comparing the pre-pandemic and pandemic periods, in the seven selected states, there was an increase in the diagnosis of suspected injury by 12%, despite having decreased the number of mammograms performed. **Conclusion:** During the period of the COVID-19 pandemic, although breast cancer screening in the States of the Northern Region of Brazil showed a decrease, the findings of BI-RADS 4 and 5 increased, showing that patients at higher risk for breast cancer continued their screening.

Keywords: COVID-19; pandemics; mammography; breast neoplasms.