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1160 – Breast cancer diagnosis outside the screening age range: an analysis of nearly 400,000 cases in the oncology panel

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Introduction: The perceived increase in breast cancer among young women conflicts with Brazilian policies. While the Ministry of Health (MS) traditionally recommends screening from age 50 — with a recent deliberation allowing individualized screening for ages 40–49 — the Brazilian Society of Mastology (SBM) advocates starting at 40. This study analyzes the temporal trend of young women diagnosed within the Unified Health System (SUS).

Methods: An ecological study evaluated 396,648 breast cancer diagnoses (ICD-10 C50) from the Oncology Panel (2019–2025). Patients were grouped by age: <40, 40–49, and ≥50 years. Temporal variations and the effects of the pandemic were assessed using the Chi-square test for proportions.

Results: Of the total sample, 33.8% of the women were under 50 years old. Contrary to the empirical perception of disease “rejuvenation”, the proportion of Early-onset breast cancer diagnosed (<40 years) did not show a progressive increase, presenting a temporally significant reduction from 11.9% in 2019 to 10.9% in 2024 ($p < 0.0001$). However, the COVID-19 pandemic period in 2020 recorded a statistically significant increase in the proportion of young women (<50 years), jumping from 33.9% to 34.8% ($p = 0.002$) diagnosed with the disease. This phenomenon occurred due to the temporary halt in preventive exams for the older group (≥50 years), which proportionally inflated the share of symptomatic young women.

Conclusion: Breast cancer “rejuvenation” reflects overall oncological volume growth and COVID-19 notification biases, where screening interruptions artificially inflated symptomatic young cases. Nonetheless, finding that 33.8% of SUS-diagnosed women fall outside the traditional universal screening target highlights the importance of the recent MS deliberation for the 40–49 group and the ongoing need to align policies with SBM guidelines.

Ethics: Public data.

Keywords: breast cancer; breast reconstruction; young adult.