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1082 – 3-years after SARS-CoV-2 pandemic: the lack of evident impact in breast cancer deaths in the state of São Paulo

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Introduction: The SARS-CoV-2 pandemic impacted breast cancer screening worldwide, leading to an increased late stage of diagnoses. Its impact on breast cancer death burden has not been investigated after the pandemic offset.

Methods: An ecological study based on official information databases (DATASUS, FOSP and IBGE) using the state of São Paulo as the unit of analysis. The number of mammograms performed (from 2017 to 2025), the distribution of breast cancer cases by stage (from 2017 to 2023) and demographic data (from the 2010 and 2022) was estimated. National Supplementary Health Agency (ANS) information regarding private health insurance coverage was used to adjust the target population (women aged 50 to 69 years) served by the Unified Health System (SUS). The Kruskal-Wallis test was used to compare monthly adjusted coverage across three periods of time: pre-covid, covid and post-covid. The Dunn post hoc test adjusted to multiple tests were used for one-by-one period comparisons as well as joint-point analysis and linear regression to estimate trends over time.

Results: The median mammogram coverage was 49%, 37% and 50% in the pre-covid, covid and post-covid periods ($p < 0.0001$), respectively. No difference is found when comparing the pre and post-covid periods ($p = 0.7$), however the prevalences of stage categories have varied significantly during the covid period. The median prevalence of EBC dropped during the covid period (adjusted $p = 0.001$), and there was a significant increase in the prevalence of LABC (57.7% vs. 62.1%; $p = 0.049$). With no inflection point in breast cancer deaths and prevalence, a continuous increasing trend in breast cancer mortality was observed ($B = 0.8$; 95%CI 0.6–1.0).

Conclusion: Despite the reduction in mammography coverage and increased number of advanced breast cancer diagnosis during pandemic, no evidence in breast cancer death was observed in the state of São Paulo.

Ethics: Public data.

Keywords: breast cancer; diagnostic screening programs; COVID-19; mortality registries.