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1050 – Complications of breast implants in the Brazilian public health system: a cross-sectional analysis of surgical management patterns and economic impact (2020–2025)

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Introduction: Complications related to breast implants have become a health concern, particularly in light of the increase of aesthetic and reconstructive procedures. In this context, long-term complications such as capsular contracture, infection, and late seroma, frequently require surgical reintervention, imposing a burden on the healthcare system. Thus, this study aimed to evaluate the temporal evolution and economic impact of hospitalizations for breast implant removal due to complications within the Brazilian Public Health System (SUS), as well as to map disparities in their distribution between 2020 and 2025.

Methods: Across-sectional, ecological, and retrospective time-series analysis based on data extracted from the Hospital Information System (SIH/SUS) via DataSUS. Procedures were identified through correspondence to unilateral or bilateral implant removal due to complications. The Kruskal–Wallis test was applied to compare regional differences, considering the hospitalizations and costs; and Poisson regression was used to assess temporal evolution.

Results: During the period, 4,099 hospitalizations were observed. In accordance with the absolute variation between regions, evidenced by the predominance of the Southeast (2,434 cases) compared to the North (128 cases), the analysis revealed statistically significant differences between regions. The Kruskal–Wallis test indicated a strong effect ($H=25.6$; $p<0.001$; $\eta^2=0.883$), demonstrating that regional variation accounts for a large proportion of the observed disparities. Accordingly, Poisson regression showed a significant upward temporal trend in hospitalizations ($\chi^2=481$; $p<0.001$), with an incidence rate ratio (IRR) of 1.23 (95%CI 1.20–1.25), indicating an average annual increase of 23% in procedures.

Conclusion: Therefore, both statistical significance results and the absolute disparities highlight inequalities regarding specialized care. Furthermore, the trend in hospitalizations reflects a growing clinical and economic burden. These findings underscore the need for targeted public health strategies aimed at reducing inequalities and improving access to surgical management.

Ethics: Public data.

Keywords: breast implants; postoperative complications; health care costs; cross-sectional studies.