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1053 – Geographic disparities in access to post-mastectomy breast reconstruction in Brazil: a time-series analysis (2015–2025)

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Introduction: Breast reconstruction following mastectomy is essential for the physical and psychosocial rehabilitation of patients with breast cancer. However, access within the public healthcare system remains inequitable, influenced by the heterogeneous distribution of resources in Brazil. This study aims to analyze the regional disparities in access to post-mastectomy breast reconstruction and its financial impact between 2015 and 2025.

Methods: Anecological, retrospective, and descriptive time-series study using data from the DATASUS Hospital Information System (SIH/SUS). Procedures were identified by codes 0410010090 and 0410010219. The number of procedures and total approved costs were analyzed by geographic region using descriptive statistics and Poisson regression for temporal trend assessment.

Results: A total of 17,557 reconstructions were recorded. A markedly unequal distribution became evident: the Southeast accounted for 9,929 procedures (56.6%), whereas the North represented a minor fraction of 570, representing an over 17-fold difference. The remaining observed regions were the South, Northeast, and Central-West, which accounted for 19.6%, 14.7% and 5.9% of the procedures, respectively. Financial allocation followed a similar pattern (total cost: R\$ 35,865,886.86), with 56.3% concentrated in the Southeast and 3.1% in the North. Temporal analysis showed stability (2015–2019), a decline (2020–2021) likely associated with the COVID-19 pandemic, and a sharp increase from 2023 onward, with persistent disparities. Poisson regression showed significant effects of region and time ($p < 0.001$), with a positive association between year and approved costs ($\beta = 163,170.962$; 95%CI 80,376.301–245,965.623), indicating increasing trends without a reduction in regional inequalities.

Conclusion: Findings confirm significant geographic disparities in access to breast reconstruction in Brazil, concentrated in the Southeast. There is an evident need for decentralizing resources and strengthening healthcare in the North and Northeast, promoting equity in oncological care.

Ethics: Public data.

Keywords: breast reconstruction; mastectomy; health services accessibility; health inequalities; Epidemiology.