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907 – Do surgical techniques influence survival in early breast cancer? A retrospective cohort study of 1,517 patients in Brazil

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Introduction: Surgical choice in breast cancer (extent of oncologic resection and use of reconstruction) is primarily guided by oncologic safety and patient preference. Prognosis is mainly driven by tumor biology and stage, but perceived survival differences across surgical techniques persist.

Objective: To compare survival outcomes in patients undergoing breast-conserving surgery (BCS), oncoplastic breast-conserving surgery (OBCS), total mastectomy (TM), and immediate breast reconstruction after mastectomy (IBRM).

Methods: This was a retrospective cohort study of consecutive patients with invasive unilateral nonmetastatic breast cancer treated surgically between 2012 and 2016 at a women's health center in Brazil. Surgical groups were BCS, OBCS, TM, and IBRM. Clinicopathological variables, treatments, and outcomes were collected. Survival outcomes were overall survival (OS), disease-free survival (DFS), and breast cancer-specific survival (BCSS), estimated using Kaplan–Meier methods and compared using Cox regression. Multivariable models were adjusted for age, tumor size, nodal status, and adjuvant therapy.

Results: Among 1,517 patients, 703 (46.3%) underwent BCS, 104 (6.9%) OBCS, 444 (29.3%) TM, and 266 (17.5%) IBRM. Mean follow-up was 5.9 years. Five-year OS, DFS, and BCSS were 84.4%, 81.4%, and 89.0%, respectively. In the univariate analysis, compared with BCS, OBCS had inferior DFS ($p=0.002$) and TM had poorer DFS, BCSS, and OS (all $p<0.001$). After multivariable adjustment, surgical technique was not independently associated with OS, DFS, or BCSS.

Conclusion: In this large Brazilian cohort of primary unilateral nonmetastatic breast cancer, survival differences observed across surgical techniques in unadjusted analyses were explained by clinical and treatment factors. Surgical technique itself was not an independent predictor of survival outcomes.

Ethics: Research Ethics Committee Approval (CAAE 84450518.9.0000.5404).

Keywords: breast neoplasms; mastectomy; breast reconstruction; breast conserving surgery; survival analysis.