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922 – Oncoplastic surgery versus total breast reconstruction in locally advanced and multicentric carcinomas: a matched comparative cohort study of oncologic and aesthetic outcomes

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Introduction: The oncologic safety and aesthetic outcomes of extreme oncoplastic (EO) surgery remain uncertain.

Objective: To compare EO, defined as partial breast reconstruction for tumors larger than 5 cm or multicentric lesions, with extreme reconstruction (ER), defined as total breast reconstruction under similar conditions.

Methods: A retrospective cohort of 276 women with T3, T4, and/or multicentric breast cancer who underwent breast reconstruction between March 2004 and September 2025 was analyzed. Patients were matched 1:1 by age and date of surgery, with a maximum variation of five years. Clinical and pathological parameters, complications, local recurrence, survival, and aesthetic outcomes were assessed. The study was approved by the centers' ethics committees, and informed consent was obtained from all participants. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) software.

Results: The mean follow-up was 44 months for EO and 57 months for ER ($p=0.03$). The clinical tumor size prior to chemotherapy was 60 mm in both groups. However, after neoadjuvant chemotherapy, the tumor measured 37 mm in the EO group and 44.5 mm in the ER group ($p=0.023$). The rates of positive and close surgical margins and the need for re-excision were similar between the groups. EO required fewer procedures, with 74% of patients completing the reconstruction in a single surgery, while ER more often required multiple operations ($p<0.01$). Complications were less frequent and less severe in the EO group. Five-year overall survival was similar (94.4% EO vs. 97.5% ER; $p=0.53$), as was locoregional recurrence-free survival (97.0%; $p=0.118$). Both patients and physicians reported higher satisfaction with the aesthetic outcomes of EO.

Conclusion: Extreme oncoplasty represents a valid alternative to mastectomy with reconstruction for selected patients with large or multicentric breast cancer, providing equivalent oncologic safety, fewer surgical procedures, lower complication rates, superior aesthetic outcomes, and higher patient satisfaction.

Ethics: Research Ethics Committee Approval, Opinion No. 2.198.758.

Keywords: extreme oncoplasty; locally advanced breast cancer; multicentric breast cancer; mastectomy; oncologic outcomes.