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# Breast cancer and local therapy: breast conservation and oncoplastic surgery are associated with improved quality of life

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**Objective:** Breast cancer is one of the leading causes of cancer in women worldwide. Local treatment can be distressful to patients. We aimed to evaluate how different types of local treatment impact the quality of life of breast cancer patients.

**Methodology:** Breast-Q Satisfaction with Breasts scores were collected before surgery and 1 year post-operatively after a first breast oncologic surgery. Linear regression was used to estimate the impact of breast conservation, use of oncoplastic surgery, types of breast reconstruction, and use of radiation therapy on Breast-Q scores. All analyses were adjusted by age, education, marital status, body mass index, T staging, N staging, tumor subtype, presence of bilateral cancer, radiation therapy, axillary staging, presence of complications, and pre-operative Breast-Q scores. **Results:** From December 2017 to December 2021, 349 patients answered both pre- and 1-year post-operative Breast-Q scores. In total, 237 (68%) patients received breast-conserving surgeries, and 112 (32%) received mastectomies. All mastectomy patients received breast reconstruction, and 176 (74% of breast-conserving surgeries) received concomitant oncoplastic surgery. After multivariable analysis, mastectomy was associated with lower scores compared with breast-conserving surgery (-21.3; 95%CI -36.2 to -6.4,  $p=0.005$ ), oncoplastic surgery was associated with higher scores (9.2; 95%CI 0.8–17.6,  $p=0.032$ ). There was a tendency of higher scores with the use of flaps in breast reconstruction, and a tendency of lower scores with the use of radiation therapy, but not significant. Interestingly, bilateral cancers were associated with higher scores (25.8; 95%CI 3.6–47.9,  $p=0.023$ ). Of note, there were six bilateral cancers, five treated with bilateral mastectomies. **Conclusion:** Breast-conserving surgery is associated with better quality of life compared with mastectomy. Oncoplastic surgery is associated with even better quality of life. Patients should be counseled whenever multiple options of surgery are possible, and efforts should be made to increase the availability of trained surgeons in oncoplastic techniques.

**Keywords:** breast neoplasms; surgical oncology; quality of life; psychological well-being.