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1091 – Laparoscopic sleeve gastrectomy following early breast cancer treatment: a retrospective case series

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Introduction: High adiposity and obesity are associated with worse outcomes in breast cancer, including a higher risk of recurrence, particularly in hormone-dependent disease. While bariatric surgery reduces weight and improves metabolic markers—with evidence suggesting a reduction in overall cancer incidence and mortality—its role and feasibility after a definitive breast cancer diagnosis and treatment remain uncertain.

Methods: This retrospective case series included ten women previously treated for stage I–II breast cancer who underwent laparoscopic sleeve gastrectomy 12 to 36 months after completing oncologic treatment. The primary outcomes were recurrence (local, regional, or distant) and invasive disease-free survival, defined according to STEEP v2.0 criteria. Perioperative complications were graded using the Clavien-Dindo classification.

Results: The mean age at cancer diagnosis was 49.3 years (standard deviation ± 13.6 years), and the pre-bariatric body mass index was 43.1 ± 5.4 kg/m². The mean interval from oncologic treatment to surgery was 22.4 ± 6.8 months. Thirty-day complications occurred in 2/10 (20%) patients (all Clavien-Dindo I–II), with 0% mortality. Total weight loss at 12 and 24 months was $9.4 \pm 5.2\%$ and $26.8 \pm 6.1\%$, respectively. Glycated hemoglobin decreased from $6.6 \pm 1.0\%$ to $5.7 \pm 0.5\%$ at 12 months, and high-sensitivity C-reactive protein decreased from 6.8 ± 3.1 mg/L to 3.0 ± 1.5 mg/L. During a mean follow-up of 5.1 ± 2.3 years post-bariatric surgery, one distant recurrence (in bone) was observed.

Conclusion: Laparoscopic sleeve gastrectomy following early breast cancer treatment is feasible, demonstrating low morbidity and significant weight and metabolic improvements. The low recurrence rate serves as a hypothesis-generating finding, emphasizing the need for prospective studies using time-dependent exposure modeling to mitigate biases.

Ethics: Research Ethics Committee Approval (CAAE 83509724400005086).

Keywords: bariatric surgery; breast neoplasms; recurrence; weight loss; gastrectomy.