The Breast Journal

LETTER TO THE EDITOR

Immediate Breast Reconstruction Using Free Transverse Rectus Abdominis Myocutaneous Flap: Impact on Breast Cancer Recurrence after Mastectomy

To the Editor:

Breast cancer is the most feared type of cancer among women. It is estimated that 4.4 million living women have had a diagnosis of breast cancer in the last 5 years (1–3). Modified radical mastectomy (MRM) remains the most frequent surgical treatment (4–6), and has been combined with breast reconstruction with the aims of enhancing body image and consequently improving quality of life (7–11).

The rectus abdominis myocutaneous muscle flap (TRAM) has become the autogenous tissue most commonly used for breast reconstruction (4, 8–10,12,13). Its major advantages over other techniques are: possibility to use large volumes of tissue, natural shape and feel of the reconstructed breast, performance of mastectomy and reconstruction as a single procedure, and no need to use synthetic implants, ruling out some complications such as infection, capsular contracture, displacement, or autoimmune reactions (4,7,12,14). On the other hand, there is a historic concern that immediate breast reconstruction with a myocutaneous flap may compromise tumor ablation procedures and affect survival and recurrence rates (8,15–20). The present study was designed to compare the results obtained with immediate breast reconstruction with and without TRAM in terms of local and/or systemic recurrence and disease-free survival in patients with invasive breast cancer.

The records of 272 Brazilian patients with invasive ductal breast carcinoma submitted to MRM with TRAM (79 patients) or to MRM only (193 patients) from January 1992 to December 2002 were reviewed. The following variables were assessed: mean patient age, family history, tumor size, tumor stage, histologic tumor grade, hormone receptor expression, angiolymphatic invasion, tumor multicentricity, histologic margins, number of affected lymph nodes, extranodal invasion, type of adjuvant treatment and time to its initiation.

Mean follow-up time was 65.6 ± 33.1 months in the TRAM group and 67.8 ± 31.7 months in the MRM group. The evaluation of clinical and histologic characteristics in the TRAM versus MRM groups revealed statistical differences in age (mean age: 45.4 ± 9.2 versus 57.8 ± 12.3 years, $p < 0.001$), neoadjuvant chemotherapy (42.3 versus 22.3%, respectively, $p = 0.002$), and adjuvant hormone therapy (21.5 versus 49.2%, $p < 0.001$).

Overall disease recurrence was 42.3% in the TRAM group and 32.3% in the MRM group ($p = 0.155$). The group that underwent breast reconstruction ($n = 79$) had a local recurrence rate of 11.8% and a systemic recurrence rate of 35.7%, whereas the rates for patients without reconstruction were 4.4 and 26.1%, respectively ($n = 193$; $p = 0.092$ and $p = 0.180$). Disease-free survival time (from surgery to first recurrence) was 95.4 months (95%CI 80.7–110.0) in the TRAM group and 105.4 (95%CI 97.0–113.72) in the MRM group, but differences were not statistically significant ($p = 0.147$). There was no association between the type of surgery and recurrence, even after correction for age and staging.

According to our results, there are no oncologic contraindications for the performance of immediate breast reconstruction with TRAM in patients with invasive ductal carcinoma submitted to mastectomy – in fact, it may affect their prognosis positively. These findings allow us to conclude that, except when specific contraindications are present, immediate breast reconstruction with TRAM should be offered to patients with invasive ductal carcinoma that cannot be treated with conservative surgery.

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