Presentation, Treatment, and Outcome of Local Recurrence After Skin-Sparing Mastectomy and Immediate Breast Reconstruction

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Background: The local recurrence (LR) rate with skin-sparing mastectomy (SSM) and immediate breast reconstruction (IBR) has been reported as comparable to the LR rate after conventional mastectomy. However, limited data are available on the prognostic significance and management of LR following SSM.

Methods: A prospective database maintained at the University of Texas M. D. Anderson Cancer Center identified 437 SSMs performed for 372 invasive T1-T2 breast cancers between 1986 and 1993.

Results: Twenty-three LRs were identified, with a LR rate of 6.2% (23/372). Twenty-two of these (96%) presented as palpable skin-flap masses. The median time to recurrence was 25 months (range, 3 to 98 months). Fourteen patients were treated with a combination of surgery and systemic therapy. Resection of the reconstructed breast was performed in only three patients. Complete local control of the recurrent disease was achieved in 17 patients (74%). Nine patients (39%) developed distant metastatic disease. At a median follow-up of 26 months, 14 of 23 patients (61%) are alive without evidence of disease, and 7 (30%) have died from breast cancer.

Conclusions: Because LR rate with SSM is low and likelihood of local control and survival is high, SSM and IBR is an acceptable treatment option for early stage breast cancer.

Key Words: Early stage breast cancer—Immediate breast reconstruction—Skin-sparing mastectomy.

Mastectomy is the treatment of choice for many women with early stage breast cancer, either because of patient preference1 or because of primary tumor features indicating that breast conservation therapy (BCT) would be associated with a prohibitively high risk of local recurrence. Skin-sparing mastectomy (SSM), defined as en bloc resection of the nipple–areolar complex, any tumor biopsy scar, and underlying breast or axillary contents, performed in combination with immediate breast reconstruction (IBR) offers superior cosmetic results compared with conventional mastectomy (CM) (Figures 1 and 2). Preservation of the breast skin envelope leaves a relatively small defect requiring autogenous skin coverage, and in many cases this small defect is completely camouflaged by subsequent reconstruction of the nipple–areolar complex. For those patients undergoing tissue expander or implant reconstruction, the contour of the breast mound is enhanced by preservation of the inframammary fold, and less skin expansion is necessary to accommodate the implant. Conventional mastectomy sacrifices much more of the breast skin and results in reconstruction scars that are much more apparent. However the SSM is a more demanding procedure because it requires more time and creativity in planning and fashioning the skin flaps. In addition, many surgeons continue to have reservations regarding the oncologic safety of the operation, despite published reports2,3 indicating comparable local recurrence (LR) rates for SSM and CM.

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FIG. 1. (A–C). Incisions used for skin-sparing mastectomy.

FIG. 2. (A) Skin-sparing mastectomy with TRAM flap reconstruction. (B) Skin-sparing mastectomy with implant reconstruction.