

Oncologic Outcomes after Nipple-Sparing Mastectomy: A Single-Institutional Experience

Introduction: Nipple-sparing mastectomy (NSM) is the latest advancement in the treatment of breast cancer. Long-term oncologic outcomes in nipple-sparing mastectomy (NSM) continue to be defined. Rates of locoregional recurrence for skin-sparing mastectomy (SSM) and NSM in the literature range from 0 to 14.3%. We investigated the outcomes of NSM at our institution.

Methods: Patients undergoing NSM at our institution from 2006 to 2014 were identified. Patient demographics, tumor characteristics, and outcomes were collected. Locoregional recurrence was compared to previously published NSM and SSM results compiled from 14 and 11 studies in the literature. Institutional review board approval was obtained prior to the initiation of this study.

Results: From 2006 to 2014, 319 patients (555 breasts) underwent NSM. 149 patients (248 breasts) had long-term follow-up available, defined as greater than 10 months of follow-up with complete documentation available for all data points. Average patient age and BMI were 47.4 and 24.28. Eighty-five percent of patients underwent mastectomy primarily for a therapeutic indication. Average tumor size was 1.41 centimeters with the most common histologic type being invasive ductal carcinoma (66.7%) followed by DCIS (23.8%). Nodal disease was present in 14.8% of patients. Average patient follow-up was 30.72 months. There was one (0.7%) incidence of ipsilateral chest-wall recurrence in a 44 year-old ($p < 0.0001$, compared to aggregate NSM and SSM data). There were 0.36 complications per patient. There were 3 incidences of nipple-areola complex (NAC) necrosis: 2 partial thickness necrosis and 1 full thickness necrosis.

Conclusions: We examined our institutional outcomes with NSM and found a locoregional recurrence rate of 0.7% with no nipple-areolar complex recurrence. This rate is significantly lower than aggregate published rates for both NSM and SSM.