Background

- Nipple sparing mastectomy (NSM) has become increasingly popular for breast cancer treatment and prevention.
- Many patients and surgeons prefer the cosmetic result achieved by preservation of the nipple and areola.
- The safety of skin-sparing mastectomy (SSM) in breast cancer patients is well-established and there is increasing evidence of the safety of NSM for cancer treatment.
- There is little data directly comparing outcomes of SSM and NSM.

Methods

- We performed IRB-approved review of patient and tumor characteristics, treatments, and follow-up data in our institution’s prospective database of NSM and SSM performed for stage 0-II breast cancer.
- Eligibility for NSM included no radiologic or clinical evidence of direct nipple involvement by tumor, and final nipple position expected to be acceptable.
- Although use of NSM increased over time, during the 2011-2013 timeframe from which sequential SSMS were evaluated, some surgeons still preferentially performed SSM.
- Patients were excluded if they had no reconstruction, or if they had less than 12 months follow-up.

Bilateral Nipple-Sparing Mastectomy

- Bilateral Skin-Sparing Mastectomy

Results

- From a prospective database of 3242 NSM performed at our institution from 6/07-7/19, we identified 1094 sequential NSM performed for cancer in 1002 patients from 06/07-4/17, with a median follow-up of 60 months, and mean age of 49 years (range 20-78).
- From a prospective database of 939 SSM performed at our institution from 01/10-12/13, we identified 559 sequential SSM performed for cancer in 504 patients from 01/10-12/13, with a median follow-up 82 months, and mean age of 51 years (range 19-80).
- Tumor characteristics and adjuvant treatments were similar in nipple-sparing and skin-sparing patients.
- Local-regional and distant recurrence rates were low in nipple-sparing and skin-sparing patients.
- There was no significant difference in 5-year locoregional recurrence-free survival, disease-free survival, or overall survival between NSM and SSM patients.

Conclusions

- Both nipple-sparing and skin-sparing patients experienced low rates of locoregional and distant recurrence at 5-years median follow-up.
- The absolute rate of tumor recurrence in the nipple was 0.2%.
- Nipple sparing mastectomy is a safe alternative to skin-sparing mastectomy for patients with breast cancer.

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