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PURPOSE: Immediate tissue expander placement remains the preferred method for breast reconstruction after mastectomy. Placement of the prosthesis in the prepectoral rather than submuscular plane is a relatively novel strategy to reduce post-operative pain and potential for animation deformity with overall equivalent cosmetic outcomes. Prophylactic post-operative antibiotic administration is a common practice for reducing reconstructive infection, but raises concerns regarding indiscriminate and prolonged use of antibiotics. Additionally, this has not been studied specifically in the setting of prepectoral tissue expander placement. We sought to determine the impact of routine post-operative antibiotics on complication rates in patients undergoing prepectoral tissue expander placement.

METHODS: We retrospectively identified all patients undergoing immediate prepectoral tissue expander placement following mastectomy by a single plastic surgeon from December 2015 to October 2018. We identified two cohorts of patients - one group that received prophylactic antibiotics at the time of discharge, and one group that did not. We collected treatment and outcomes data, and used IBM SPSS Version 23.0 to compare rates of post-operative complications. Our primary outcome was tissue expander loss, and secondary outcomes were infection, skin necrosis, and return to operating room.

RESULTS: We identified 69 patients with 115 breasts who received prophylactic antibiotics upon discharge from the hospital, and 63 patients with 106 breasts who did not. There were no significant differences between the groups in terms of age, indications for mastectomy, or comorbidities. The group receiving antibiotics had significantly more patients who received neoadjuvant chemotherapy (42% vs. 28%; p=0.037) and underwent nipple-sparing mastectomies (88% vs. 79%; p=0.031). The antibiotic group had significantly lower rates of tissue expander loss, infection, and return to the OR. There was no difference in skin necrosis rates.

CONCLUSION: No current guidelines exist to guide routine antibiotic use following immediate breast reconstruction with prepectoral tissue expanders. These data show a strong association between post-operative antibiotics and reduced post-operative complication rates in women undergoing prepectoral tissue expander placement, despite the antibiotic group having higher baseline risk for complications. As a result, our current practice is to prescribe all patients undergoing immediate prepectoral tissue expander placement a one-week course of antibiotics.

119

The Impact of Radiotherpay on Long-Term Satisfaction and Health Related Quality of Life in Postmastectomy Breast Reconstruction - An analysis of 3,265 Patients

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BACKGROUND: This study aims to assess the effects of radiation therapy (XRT) on long-term satisfaction and health related-quality of life in patients undergoing post-mastectomy, implant-based (IBR) or autologous breast reconstruction (ABR).

METHODS: BREAST-Q scores for women who underwent IBR or ABR at a tertiary academic cancer center were prospectively collected from 2009 - 2017 as part of routine care. Mean scores for satisfaction with breasts, outcome, and physical well-being of the chest were examined by XRT status, timing, and reconstructive modality preoperatively and at years 1–5 using non-parametric analyses and regression analyses.

RESULTS: Of 3,265 included patients, 867 patients underwent XRT. XRT patients at preoperative timepoints or postoperatively scored significantly lower than non-XRT patients (p < 0.01). Patients with XRT had lower physical well-being scores compared to patients without XRT at each postoperative timepoint. ABR patients with XRT had higher breast satisfaction scores than IBR with XRT (p < 0.01).
CONCLUSION: XRT adversely impacts long-term post-operative breast satisfaction and physical well-being of the chest. This data can improve preoperative counseling for modality decision making, informed consent, and expectation management in patients undergoing breast reconstruction in the setting of XRT.

Smooth Versus Textured Tissue Expanders in Breast Reconstruction Reduced Early Post-operative Complications

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PURPOSE: Textured TEs (TTEs) were initially introduced to limit expander migration and reduce capsule formation, which are inherent to traditional smooth expanders. Recently, the addition of tabs on expander devices to reduce migration along with increasing concerns associated with textured implants and anaplastic large cell lymphoma (ALCL), has led to increased consideration of smooth TEs (STEs) in breast reconstruction. STEs reduce the theoretical risk of ALCL and migration can be addressed by fixation of suture tabs on the tissue expander to the chest wall. A comparative analysis of the outcomes of smooth and textured expanders is needed to ensure safety and equivalency. The aim of our study is to evaluate the early post-operative complications of smooth versus textured TEs.

METHODS: A retrospective case series was conducted across all female patients who underwent immediate breast reconstruction using TEs at a single academic teaching hospital from April 2017 to September 2018. Patients with a prior history of chest wall irradiation were excluded. The primary outcome variables were the presence early post-operative complications, namely infection, seroma, hematoma, or wound dehiscence, and failure of breast reconstruction.

RESULTS: 53 patients with a total of 87 breasts met the inclusion criteria; TTEs were placed in 39 breasts and STEs in 48 breasts. Most patients studied had a therapeutic mastectomy (TTE n=15 (65.2%) versus STE n=20 (66.7%)), with nipple sparing mastectomy (NSM) being commonly performed (TTE n=31 (79.5%) versus STE n=34 (70.8%)). There were significantly more early post-operative complications in the TTE versus STE breast reconstruction group (p=0.001). We detected a significant increase in seroma formation in the TTE versus STE group (n=12 (30.8%) versus n=5 (10%), p=0.017). There were increased rates of infection and prosthetic failure in TTE versus STE, however these were not significant findings. At the univariate level, the factors predictive of having any complication were expander type (p<0.001), intraoperative filler (p<0.0001), and intraoperative TE expansion volume (p=0.0017), with complications being greater in TTEs than STEs (n=21 (70%) versus n=9 (30%)), and associated with a larger intraoperative TE expansion volume (249.6±178.7 versus 198.8±124). In multivariable regression analysis, implant type (p=0.006), mastectomy type (p=0.02), and TE filler (p=0.033) significantly predicted the risk of having a complication following TE insertion; where STEs, non-nipple sparing mastectomies, and saline TE filler were less likely to be associated with a postoperative complication.

CONCLUSIONS: STEs have increased their market share over the past year with no data supporting their equivalence in comparison to TTE. Here, we show that STEs had a reduced overall rate of early post-operative complications, and therefore are an acceptable and beneficial alternative to TTEs for immediate two-stage breast reconstruction with a known reduced incidence of ALCL development in smooth devices.

Socioeconomic Factors Affect The Treatment Of Mandibular Fractures

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PURPOSE: Health care disparities have been reported throughout medicine for decades. While blatant explicit bias is not prevalent, a substantial body of research has been published suggesting that systemic biases related to sex, race,