

**CONCLUSION:** Increased time between NAC and immediate breast reconstruction decreases the likelihood of experiencing one or more postoperative complications. In consultation with the oncologist, this information can be used to balance postoperative complication risk with increased oncologic risk in delaying mastectomy with immediate reconstruction.

## **176. OBESE PATIENTS HAVE BETTER SURGICAL OUTCOMES WITH PREPECTORAL COMPARED WITH SUBPECTORAL IMPLANT PLACEMENT**

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**PURPOSE:** Plastic surgeons are faced more and more with the challenges of reconstructing patients with high BMI. The goal of this study is to evaluate the surgical and patient-reported outcomes (PROs) of obese patients who underwent prepectoral vs. subpectoral breast reconstruction

**METHODS:** We conducted a retrospective review of patients who underwent two-stage implant-based breast reconstruction (IBR) between January 2017 and December 2019. Our primary endpoint was overall complications. Secondary outcomes included major complications (complications requiring surgical intervention or device explantation) and PROs (BREAST-Q).

**RESULTS:** We identified a total of 209 patients (284 reconstructions) with BMI  $\geq 30$  who met the inclusion criteria [184 prepectoral reconstruction, 65%; and 100 subpectoral reconstructions, 35%]. The overall complication rate was significantly higher in the subpectoral group (50% vs. 37%,  $p=0.047$ ) and device explantation in the subpectoral group was 2-fold higher than that in the prepectoral group (25% vs. 12.5%,  $p=0.008$ ). Subpectoral reconstruction was associated with nearly twice the hazard ratio of device explantation on the multiple Cox proportional hazards regression model [HR 1.97; 95% CI, 1.05 - 3.68;  $p=0.034$ ]. No significant differences in mean scores for satisfaction with the breast, psychosocial well-being, and sexual well-being were identified between the two groups ( $p=0.47$ ,  $p=0.91$ ,  $p=0.93$ , respectively).

**CONCLUSION:** Prepectoral breast reconstruction was associated with significantly decreased overall breast-related complications, infections, and device explantation compared to subpectoral breast reconstruction when performed in obese patients. Therefore, not only is the prepectoral technique not contraindicated in this patient population, but the results are superior to the subpectoral technique. In this patient population, we recommend using the prepectoral technique for IBR.

## **177. PROPHYLACTIC ABSORBABLE ANTIBIOTIC BEADS FOR HIGH RISK IMPLANT-BASED RECONSTRUCTION: A SINGLE INSTITUTION PILOT STUDY**

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**PURPOSE:** Infections are problematic in implant-based reconstruction after mastectomies. Infection rates have been reported to be as high as 31%. Strategies to reduce the risk of infection include various antibiotic irrigation solutions, “no-touch” techniques, optimizing sterility, and empiric antibiotic use for skin flora coverage. Absorbable antibiotic beads have been well described for other indications, including orthopedic and pressure sore reconstruction. The purpose of this study is to evaluate the use of prophylactic biodegradable antibiotic beads during pre-pectoral and sub-pectoral implant-based breast reconstruction following mastectomy.

**METHODS:** A single-center retrospective review of patients who underwent implant-based breast reconstruction post-mastectomy between 2019 to 2022. Patients were divided into two groups: Group I were deemed “high risk” by the senior author and received biodegradable antibiotic beads (1 gram vancomycin, 240mg gentamicin) during tissue expander or implant reconstruction (pre-pectoral