Improving Aesthetics By Combining Autologous- and Adjustable Implant-Based Breast Reconstruction

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**Purpose:** Combined autologous abdominally based free flaps (DIEP, ms-TRAM, SIEA) and implants for breast reconstruction after mastectomy can optimize aesthetic outcomes for women who have inadequate tissue volume. Immediate placement of adjustable saline implants at the time of autologous reconstruction is beneficial compared to conventional delayed implant placement after autologous reconstruction.

**Methods:** A retrospective chart review of a single surgeon’s patients who had undergone autologous abdominally based free flaps with immediate placement of Mentor smooth round spectrum saline implants (immediate group) compared to those who had delayed implant placement (delayed group) was performed.

**Results:** Five patients in the immediate group and 16 patients in the delayed group were identified. For patients who had an adjustable saline implant placed, the final implant fill volume average was 275 mL (150–450 mL), while the delayed implant volume average was 236 mL (158–457 mL). Patients in the delayed group had an average length of time from autologous reconstruction to implant placement of 10.5 months (3-30 months). One patient in each group returned to the OR. In the immediate group the patient had a kinked venous anastomosis that was salvageable, while the delayed group patient had a hematoma that was evacuated.

**Conclusions:** Combined immediate autologous flap with adjustable saline implants can achieve an excellent aesthetic result. This combined approach allows for volume adjustment, the ability to achieve larger volume augmentation without compromising the pedicle, improved shape, and the option to have the prosthesis be their permanent implant without increased complications.

Optimizing Pain Control after Implant-Based Breast Reconstruction: A Systematic Review

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**Background:** Despite the intense focus on the opioid epidemic and its known association with surgical procedures, there is a paucity of evidence-based literature on pain management in implant-based breast reconstruction (IBR). Herein, we present a systematic review of the literature aimed at identifying pain treatment protocols to minimize narcotic use and its associated potential addiction in IBR.

**Methods:** A comprehensive systematic review of the published literature was conducted using Ovid Medline/PubMed Database without timeframe limitations, in compliance with the guidelines outlined in the Preferred Reporting Items for Systematic reviews and Meta-analyses (PRISMA). Inclusion criteria selected for studies reporting objective outcomes of pain modulation (preoperatively, intraoperatively, and postoperatively) in IBR. Articles for inclusion were stratified based on intervention approach.

**Results:** A total of 219 articles were identified on initial search query. After full-text review and final screening of all articles, 23 studies met the inclusion criteria. Pain optimization in IBR was reported with the following interventions: nerve block (1 preoperative, 7 intraoperative), postoperative ketorolac (1), postoperative ibuprofen (1), bupivacaine pump (2), simultaneous lipofilling at time of implant placement (1), ERAS protocol (1), ADM + prepectoral implant placement (6), and tissue expander (3).

**Conclusions:** There is substantial need for evidence-based guidelines in the plastic surgery literature for pain optimization without the use of opioids. While this review of studies to date investigates potential solutions to this crisis, we hope this area of study continues to be a top priority for plastic surgeons to allow for optimized post-operative care for patients following IBR.