Same-Day Discharge for Women Undergoing Implant-Based Breast Reconstruction Using an Enhanced Recovery after Surgery Model Is Safe

Jennifer N. Redwood, MSc; Danielle Dumestre, MD; Claire Temple-Oberle, MD, MSc

Disclosure/Financial Support: None of the authors have a financial interest in any of the products, devices, or drugs mentioned in this manuscript.

PURPOSE: To compare enhanced recovery after surgery (ERAS) with traditional recovery after surgery (TRAS) for patients undergoing implant-based breast reconstruction.

MATERIALS AND METHODS: A retrospective chart review of two patient groups (ERAS and TRAS) was performed. Data from patients undergoing implant-based breast reconstruction (immediate and delayed) from a single reconstructive surgeon working with three general surgeons was collected from February 2012 - October 2013 for the TRAS group and September 2013-2015 for the ERAS group. The ERAS protocol included day surgery, multimodal analgesia, and preoperative anti-emetic prophylaxis. The TRAS pathway involved overnight admission, narcotic-based analgesia, and no preoperative anti-emetic. Demographics, operative variables, and complication rates were compared between groups.

RESULTS: Sixty-three ERAS patients and 78 TRAS patients were included in the study. Follow-up was reported for 100% of patients, and included antibiotic use and complications rates up to 30 days post-reconstruction. Length of stay was shorter for ERAS patients compared to TRAS patients (0.31 nights vs. 1.45 nights, p=0.00). No differences were observed between groups in the frequency of preoperative radiation (6% vs. 5%, p=0.70) or immediate reconstruction (97% vs. 89%, p=0.09). The ERAS patients underwent more bilateral mastectomies (83% vs. 55%, p=0.00) and direct-to-implant (vs. expander) reconstructions (65% vs. 24%, p=0.00). Despite the increased risk for the ERAS group due to more implant-based and bilateral reconstructions, there was no significant difference in major complications [repeat surgery, readmission, or IV antibiotics (13% vs. 9%, p=0.48)], minor complications such as seroma or partial tissue necrosis (29% vs. 27%, p=0.83), or number of postoperative emergency room visits (10% vs. 15%, p=0.3) within 30 days compared to the TRAS group.

CONCLUSION: ERAS protocol for implant-based breast reconstruction is safe, without increased readmission rates or emergency room visits compared to TRAS, and significantly decreased length of stay.