Breast Abstracts

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PURPOSE: IBR is an increasingly more popular surgery following mastectomy for breast cancer. Triple negative breast cancer (TNBC) accounts for around 15% of all breast cancer cases.1 Patients with TNBC are known to have a higher association with disease recurrence and mortality compared with non-TNBC patients. A recent systematic review summarizing available therapies for TNBC patients reported cytotoxic chemotherapy as the mainstay of treatment.2 MIBR poses a higher risk of postoperative complications, which in TNBC patients may pose a serious risk to oncological outcomes. The main objective of the present study was to evaluate the oncological safety of immediate breast reconstruction in a population of patients with breast cancer comparing TNBC and non-TNBC patients.

METHODS: A 6-year prospectively maintained database at The Ottawa Hospital between January 1, 2013 and May 31, 2019 was reviewed. Patients with distant metastasis, locoregional recurrence, and neoadjuvant therapy history were excluded. Propensity-score matching with logistic regression methods was performed to compare oncological outcomes in TNBC and non-TNBC patients. Propensity-score matching was performed using the nearest-neighbour method and a matching ratio of 2:1. Kaplan-Meier and log rank tests were performed to perform statistical comparison of disease-free interval (DFI). Outcomes of interest included delays to first radiochemotherapy [17 (33%) versus 14 (14%), P = 0.1], postoperative complications [13 (26%) versus 34 (33%), P = 0.5], or locoregional recurrence [2 (1.96%) versus 1 (1.96%), P = 1] were statistically similar in TNBC and non-TNBC. Overall survival was used to estimate the risk of locoregional recurrence. P values of <0.05 and 95% confidence interval excluded 1.0 were considered statistically significant.

RESULTS: Of the 277 eligible patients, 153 patients were matched. The cohort consisted of 51 (33%) TNBC and 102 (67%) non-TNBC patients after propensity-score matching according to age, tumor stage, and disease grade. The mean follow-up was 3.3-years (±1.6) in TNBC and 3.0-years (±1.8) in non-TNBC patients (P = 0.4). The rates of delays to first radiochemotherapy [17 (33%) versus 14 (14%), P=0.1], postoperative complications [13 (26%) versus 34 (33%), P = 0.5], or locoregional recurrence [2 (1.96%) versus 1 (1.96%), P = 1] were statistically similar in TNBC and non-TNBC. Overall survival was not significantly different comparing TNBC and non-TNBC patients (P > 0.05). DFI was not significantly different comparing TNBC and non-TNBC patients (log-rank P = 1.0). Cox regression demonstrated a 12% higher risk of locoregional recurrence in the TNBC compared with the non-TNBC patients, which was not statistically significant [aHR: 1.12, 95% CI: 0.102, 12.42, P = 0.924].

CONCLUSIONS: Our 6-year retrospective cohort study used propensity-score matching to compare oncological outcomes among TNBC patients compared with matched non-TNBC patients. Our findings demonstrated that TNBC was not associated with worse oncological outcomes, including DFI. We excluded women with worse prognosis, which warrants caution when interpreting our findings. Overall, IBR is safe to offer certain TNBC patients from an oncological perspective.

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The Impact of Obesity on Complications following Reduction Mammaplasty

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PURPOSE: The obesity epidemic is prominent in the United States, with a predicted prevalence of 50% by 2030.1 This has led to a continually growing demand for bariatric and other obesity-related surgeries. Reduction mammaplasty, one such procedure, is among the most frequently performed by plastic surgeons. Several complications of this procedure have been demonstrated in the literature.2 However, previous work has not analyzed the relationship between obesity and complication risk following adjustment for baseline differences. This study aimed to expand on the current knowledge of the relationship between body mass index (BMI) and complication risk following reduction mammaplasty.

METHODS: The 2013–2018 National Surgical Quality Improvement Program database was analyzed for all cases of reduction mammaplasty using CPT code 19318.
Postoperative complications out to 30 days were classified as surgical, wound, or medical complications. Surgical complications were composed of unplanned return to the operating room and unplanned readmission. Patients were assigned to a category by their calculated BMI, including non-overweight (<25), overweight (25–29.9), class 1 (30–34.9), class 2 (35–39.9), and class 3 obesity (≥40). Patients missing height or weight data were excluded. Rates of complications were compared across patients of different BMI classifications. Demographics, concurrent comorbidities, and perioperative variables were compared between patients who did or did not experience a complication. Multivariable analyses were performed to assess the associations between BMI and complications following adjustment for baseline differences.

RESULTS: A total of 28,644 cases were included in the analysis. Of these cases, 1787 (6.2%) experienced one or more postoperative complications. As BMI increased, patients were more likely to experience surgical, wound, and medical complications ($P < 0.001$). Aside from BMI, compared with patients who did not experience a postoperative complication, those who did were more likely to be older, have a higher American Society for Anesthesiologists Personal Status classification, be an inpatient, current smoker, have numerous medical comorbidities, and be undergoing a concurrent procedure ($P < 0.001$). Following adjustment for these baseline differences, patients with class 1 (OR = 1.40, $P < 0.001$), class 2 (OR = 1.62, $P < 0.001$), or class 3 obesity (OR = 2.13, $P < 0.001$) were more likely to develop at least one postoperative complication when compared with non-overweight patients. The odds of wound complications were particularly increased in patients who were overweight (OR = 1.63, $P = 0.001$), or with class 1 (OR = 2.53, $P < 0.001$), class 2 (OR = 3.06, $P < 0.001$), or class 3 obesity (OR = 4.17, $P < 0.001$).

CONCLUSIONS: Following adjustment for baseline differences between patients, a higher BMI was associated with an increased odds of postoperative complications following reduction mammaplasty in a dose-dependent manner. The relationship between BMI and complications was particularly strong for wound complications, including surgical site infection and dehiscence.

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Assessing the Necessity of Prolonged VTE Prophylaxis in DIEP Flap Patients: An Analysis of Our 10-year Institutional Experience

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PURPOSE: Based on the 2005 Caprini Risk Assessment Model for venous thromboembolism (VTE), the American Society of Plastic Surgeons published prevention guidelines in 2011 recommending 1 week of postoperative chemoprophylaxis for patients scoring between 3 and 6 and extended prophylaxis (up to 4 weeks) for patients scoring 7 or higher after a major procedure. This would result in prolonged prophylaxis (1 week or more) for the majority of patients undergoing deep inferior epigastric perforator (DIEP) flap breast reconstruction. In our experience, DIEP flap patients are generally healthy besides their breast cancer history and do not require the blanket application of prolonged prophylaxis. Instead, we favor an individualized analysis of VTE risk factors relative to the average DIEP flap patient, which has resulted in an overall limited use of chemoprophylaxis. The aim of this study was to describe our institutional experience in thromboembolism prevention and to assess the necessity of prolonged prophylaxis in DIEP flap patients.

METHODS: Patients who underwent DIEP flap reconstruction at a tertiary care center from August 2011 to March 2020 were included. Charts were retrospectively reviewed looking at patient characteristics, VTE prophylaxis regimens, and development of deep vein thrombosis (DVT) and pulmonary embolism within 60 days of surgery. Patients were considered positive for DVT or pulmonary embolism if diagnosed radiographically on ultrasound or CT scan, respectively. Caprini scores were calculated for all patients.

RESULTS: In total, 249 patients were included in this study, with an average follow-up of 542.0 days. An estimated 245 patients (98.4%) were considered average risk and received chemoprophylaxis with subcutaneous heparin only during hospitalization (average length of stay: 3.3