



52293-Lala

52293: Evaluating the Use of 5-Factor Modified Frailty Index to Predict Wound Healing Complications in Reduction Mammoplasty

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Background: Reduction mammoplasty is an established treatment for symptomatic macromastia, with high patient satisfaction and low complication rates. Understanding risk factors associated with complications such as wound healing are essential for preoperative patient counseling and selection. The mFI-5 (modified frailty index) has been proposed as a simple tool that uses patient comorbidities to predict postoperative morbidity. The authors sought to determine if the mFI-5 is an accurate predictor of 30-day wound healing complications following reduction mammoplasty.

Methods: A retrospective chart review was performed of all patients undergoing primary bilateral reduction mammoplasty between 2017 and 2019 at a single academic institution. Charts were abstracted for preoperative indices including age, BMI, smoking status, and ASA. mFI-5 frailty scores were calculated for each patient. 30-day wound healing complications were defined as incisional dehiscence, T-point breakdown, nipple-areolar complex necrosis, or fat necrosis. Univariate and multivariate logistic regression analyses were performed to evaluate predictive value. Parametric and non-parametric analysis was utilized with univariate and bivariate tests including Student's t test, Mann-Whitney U test, and Chi squared with Fisher's Exact test.

Results: 474 patients were identified and stratified into three age groups: 15-30, 31-50, and over 51. Twenty-six percent of patients developed >1 wound healing problem. On univariate analysis, age 31-50 and 51+ (odds ratio 2.75 and 3.16) and mFI score of 1 compared to 0 (odds ratio 2.07) were associated with an increased risk of wound healing issues. Adjusted multivariate analysis indicated that age greater than 51 years significantly predicted wound healing issues (odds ratio 2.89, p=0.001) when controlled for ASA, smoking, and BMI. The mFI-5 did not significantly predict wound healing issues when controlled for age, ASA, or smoking status.

Conclusion: Frailty has been recently used to predict risk of postoperative morbidity. In our population, the mFI-5 may not be a statistically significant predictor of wound healing complications following reduction mammoplasty. When controlling for confounders, advanced age alone seems to place patients at higher risk for wound healing complications.