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ABSTRACT SUBMISSION TITLE: *A2 - Drainless Breast Reduction Is Not Associated With Increased Seroma Or Hematoma*

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Abstract Text:

PURPOSE:

Closed-suction drains may be placed after breast reduction surgery with the intention of reducing the likelihood of complications. However, recent guidelines suggest that drains may not provide significant benefit and are associated with greater discomfort, decreased mobility, and increased risk of infection. Therefore, the objective of this study was to determine whether drain placement reduced complication rates in breast reduction surgery.

METHODS:

All female patients who had undergone breast reduction at a single academic center between 2019 and 2023 were included in this retrospective review. Patients were divided into two groups based on whether a closed-suction drain was placed at the end of surgery: "drain group" versus "drainless group." Demographics, comorbidities, operative details, and postoperative complications were collected. Postoperative outcomes included seroma, hematoma, fat necrosis, wound dehiscence, cellulitis/erythema, nipple necrosis, and revision surgery. A secondary subgroup

univariate analysis was performed on patients with BMI ≥ 30 and those with high resection weight breast reduction ($\geq 1000\text{g}$). Outcomes were compared with Pearson chi-square or Fischer's exact test for categorical variables, and Mann–Whitney U for continuous variables. A multivariable logistic regression was performed to adjust for confounders. Statistical significance was set at $p < 0.05$.

RESULTS:

Among 1,186 patients, 518 (43.7%) were in the drainless group and 668 (56.3%) were in the drain group. The two groups differed in BMI, race, insurance, breast pedicle used, liposuction use, and resected weight (all $p < 0.05$). Complication rates were similar (13.1% in the drainless group versus 14.4% in drain group, $p = 0.555$). Seroma occurred in 1.5% of the drainless group versus 1.8% of the drain group ($p = 0.772$), and hematoma occurred in 1.7% of the drainless group versus 1.6% of the drain group ($p = 0.879$). In the BMI ≥ 30 subgroup analysis, drainless and drain groups had similar rates of seroma (2.2% vs. 2.7%; $p = 0.779$) and hematoma (2.6% vs. 1.7%; $p = 0.531$) formation. In the high resection weight subgroup analysis, drainless and drain groups had similar rates of seroma (1.9% vs. 1.6%; $p = 0.750$) and hematoma (1.3% vs. 2.1%; $p = 0.531$) formation.

CONCLUSIONS:

A drainless approach in breast reduction is not associated with an increase in postoperative complications. Furthermore, in high-risk populations, including high resection weight breast reduction and patients with BMI ≥ 30 , a drainless approach did not increase the risk of seroma or hematoma formation. Surgeons should consider adopting a drainless approach to avoid the disadvantages associated with drain utilization.