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ABSTRACT SUBMISSION TITLE: *A1 - The Effect of Sentinel Lymph Node Biopsy on Immediate Implant-Based Breast Reconstruction: A NSQIP Study*

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Abstract Text:

PURPOSE:

Surgical management of breast cancer continues to evolve, and plastic surgeons continue to play an important role. The status of axillary lymph nodes is one of the most important factors affecting breast cancer treatment and decision making. Sentinel lymph node biopsy (SLNB) is considered standard of care for evaluation of the axilla in patients with clinically node-negative breast cancer, but this does not come without its own morbidity. As the majority of patients who undergo immediate reconstruction choose implant-based reconstruction, it is imperative we explore how this is impacted by concurrent SLNB. The aim of this study is to use the NSQIP database to determine if SLNB at the time of immediate implant-based breast reconstruction affects patient outcomes.

METHODS:

The American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP) data between 2016-2021 was accessed to identify patients who underwent

mastectomy and immediate breast reconstruction with implant or tissue expander (CPT codes 19303 and 19340). From this cohort, patients who underwent SLNB (CPT 38525 or 38500) were divided into two groups, those who underwent SLNB at the time of mastectomy and those who did not. Complication rates including overall morbidity, surgical site infections, wound complications, development of DVT or PE, unplanned reoperation, readmission, length of stay, and operative time were compared using the Pearson's Chi-square test.

RESULTS:

32,171 patients underwent mastectomy with immediate implant-based breast reconstruction and were included in the analysis. 22,807 patients underwent SLNB while 12,419 patients did not. There were no significant differences in overall morbidity, surgical site infections, need for additional unplanned procedures, length of stay, or operative time between the two groups. There was a significantly higher rate of unplanned readmission in the biopsy group ($p=.002$).

CONCLUSIONS:

SLNB performed at the time of mastectomy and immediate implant-based breast reconstruction does not increase overall morbidity, length of stay, or operative time compared to immediate breast reconstruction performed without SLNB. Unplanned readmission rates were significantly higher in the sentinel lymph node biopsy group. This NSQIP analysis suggests that performing SLNB at the time of immediate implant-based breast reconstruction does not compromise outcomes of the operation and can be performed safely without an added risk.