**Evaluating the Impact of Immediate Lymphatic Reconstruction for the Surgical Prevention of Post-Operative Lymphedema**

**PURPOSE:** Breast-cancer related lymphedema affects one in five patients and its risk is increased by axillary lymph node dissection (ALND) and regional lymph node radiation (RLNR). The purpose of our study is to evaluate the impact of immediate lymphatic reconstruction (ILR), or LYMPHA, on postoperative lymphedema incidence.

**METHODS:** We performed a retrospective review of all patients referred for ILR at our institution since September 2017. Patients with a minimum 6-months follow-up data were identified. Patient demographics, intra-operative specifics, and pre and serial post-operative measurements were obtained. Lymphedema (LE) is defined at our institution by at least one positive quantitative measurement (bioimpedance spectroscopy, perometry, circumferential measurements), and signs and symptoms consistent with LE determined by a certified lymphedema therapist.

**RESULTS:** A total of 95 women with unilateral breast cancer who underwent ALND and ILR were identified. 41 consecutive patients underwent ILR and had a minimum of 6-months follow up. The median follow-up time was 11.4 months (range: 6.2-26.9). Mean patient age was 54±12.4 and BMI was 27.7±5.9. Median number of lymph nodes removed was 14 (IQR: 10-19). RLNR was administered in 93% of patients who received adjuvant radiotherapy. Our institutional rate of lymphedema was 0% (n=0). Our transient lymphedema rate is 6.9% (n=2).

**CONCLUSION:** Our study uses multiple measurement modalities and strict follow-up guidelines to evaluate the efficacy of ILR. Our findings support that ILR at time of ALND is a promising, safe approach for LE prevention in a high-risk patient population that must be further studied to facilitate broader application.