

Prophylactic Lymphovenous Bypass at the Time of Axillary Lymph Node Dissection for Lymphedema Prevention: A Retrospective Study of Lymphedema Rates

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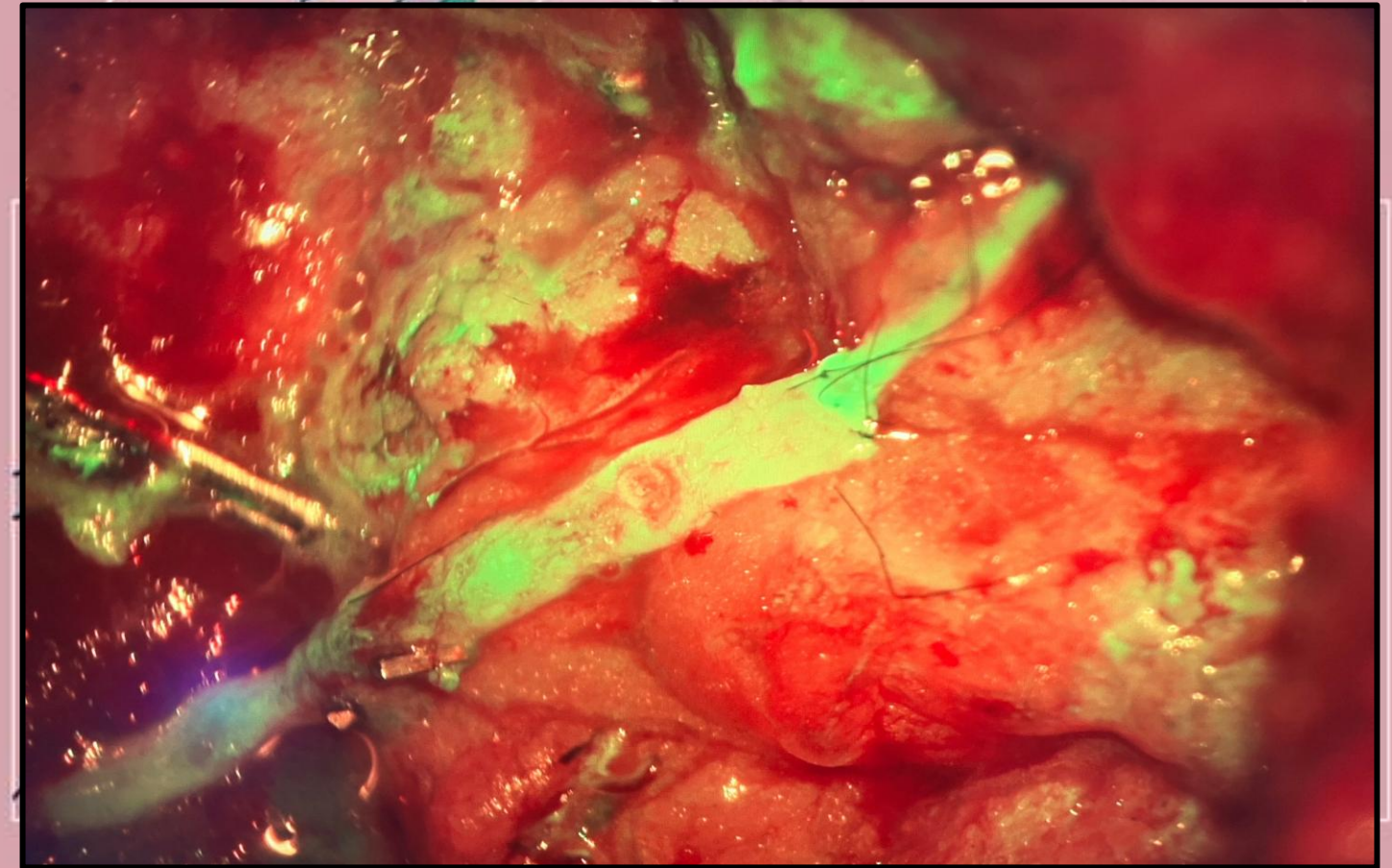
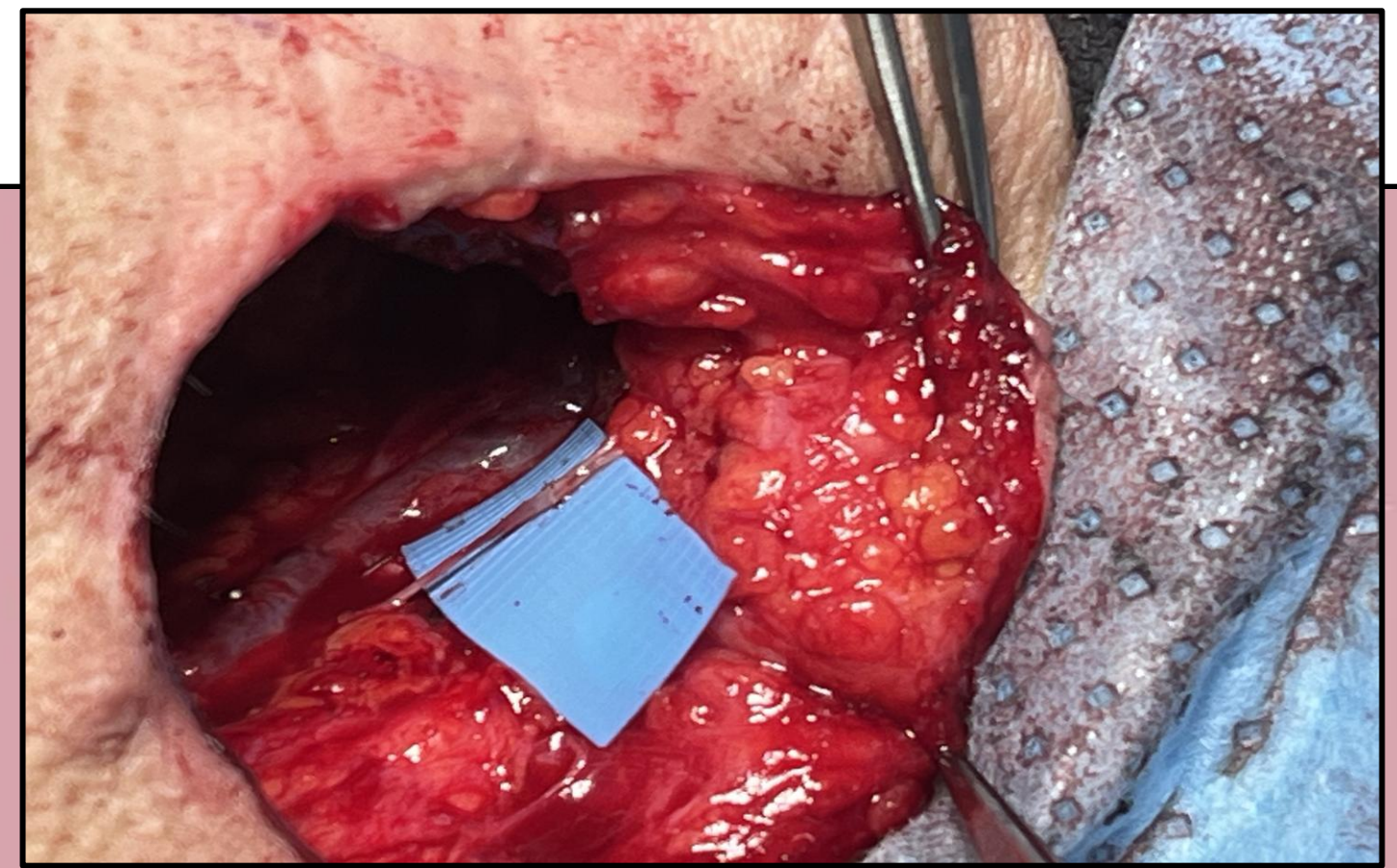


Disclosure

- No relevant financial relationships with ineligible companies to disclose

Background

- **LYMPHEDEMA:** chronic swelling and inflammation due to impaired lymphatic drainage
 - Common causes: axillary lymph node dissection (ALND) for breast cancer and radiation
- **INTERVENTION:** prophylactic lymphovenous bypass surgery (pLVB)
 - LYMPHA technique
- **OBJECTIVE:** to evaluate institutional lymphedema rates in breast cancer and skin cancer patients who underwent ALND + pLVB
 - Current studies report variable outcomes^{1,2}



Methods

- Retrospective chart review (2023 to 2025)
 - **INCLUSION CRITERIA:** Patients diagnosed with breast or skin cancer that underwent ALND + pLVB
 - **EXCLUSION CRITERIA:** patients with pre-existing lymphedema or lost to follow-up
- Measuring lymphedema
 - **International Society of Lymphology (ISL) staging**
 - **Limb circumference**
 - affected vs unaffected limb
- Compared to nationally reported lymphedema rate of 30%
 - Clopper-Pearson Method

Stage	Description
0	Subclinical disease, where symptoms and physical examination are negative, but there is impaired lymph transport
I	Edema resolves with limb elevation
II	Edema doesn't improve with limb elevation
III	Lymphostatic elephantiasis and trophic skin changes

Results: Patient Demographics and Operative Outcomes

TABLE 1. PATIENT DEMOGRAPHICS AND ONCOLOGIC CHARACTERISTICS

CHARACTERISTIC	VALUE
TOTAL PATIENTS, n	44
BREAST CANCER DIAGNOSIS n, (%)	35 (80%)
SKIN CANCER DIAGNOSIS n, (%)	9 (20%)
MEAN AGE (YEARS)	58
FEMALE SEX n, (%)	38 (86%)
NEOADJUVANT CHEMOTHERAPY, n	24
ADJUVANT RADIATION, n	26

TABLE 2. OPERATIVE OUTCOMES

VARIABLE	RESULT
MEAN OPERATIVE TIME (MIN)	269
MEAN # of ANASTOMOSES	2
MAJOR PERIOPERATIVE COMPLICATIONS	0
MEAN DRAIN DURATION (DAYS)	19

Results: Lymphedema Outcomes

TABLE 3. LYMPHEDEMA OUTCOMES

OUTCOME	RESULT
MEDIAN FOLLOW-UP (MONTHS)	12.5
LYMPHEDEMA INCIDENCE, n (%)	5 (11.4%)
95% CI	3.8-24.6%
P-VALUE	0.007
MEAN TIME TO LYMPHEDEMA ONSET (DAYS)	152

**NATIONAL INCIDENCE
ALND-ONLY: 30%**

Conclusions

- pLVB is associated with reduced rates of lymphedema after ALND
 - Increase in operative time
 - No increase in complications
 - Benefit to multi-disciplinary approach
- Limitations:
 - Short follow-up
 - Limited sample size
- Future studies:
 - Comparison to patients who underwent ALND but did not receive pLVB

THANK YOU!



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