

INTRODUCTION

- Breast cancer related lymphedema (BCRL) is a potential sequelae of high-risk breast cancer treatment.
- Preventative treatment with immediate lymphatic reconstruction (ILR) at the time of axillary lymph node dissection (ALND) has emerged as the standard of care.
- Relatively little is known about the impact of cancer stage on outcomes.

OBJECTIVES

- Critically evaluate the impact of cancer stage (T/N/M) on on long term success following immediate lymphatic reconstruction with the goal of identifying high risk oncologic factors contributing to development of lymphedema despite ILR.

METHODS

- A retrospectively maintained, IRB approved study followed patients who underwent ILR at the time of ALND at our tertiary care center between 2018 through 2023.
- Patients who completed 2 years of post-operative follow up in our multidisciplinary lymphedema clinic met criteria for inclusion.
- Patient specific factors including cancer staging (T/N/M), intraoperative details, post-operative measurements and outcomes were evaluated.
- Long term outcomes including incidence of lymphedema and patient specific factors that may have contributed to this development were further explored.

FIGURES

Variable	Lymphedema	No Lymphedema	Total	p-value
Cancer Stage T (Surgical Path)				0.76
0	7 (25.9)	44 (21.8)	51 (22.3)	
1	7 (25.9)	77 (38.1)	84 (36.7)	
2	6 (22.2)	41 (20.3)	47 (20.5)	
3	7 (25.9)	39 (19.3)	46 (20.1)	
4	0 (0.0)	1 (0.5)	1 (0.4)	
Cancer Stage T (Clinical)				0.60
0	0 (0.0)	3 (1.6)	3 (1.4)	
1	1 (4.0)	25 (13.4)	26 (12.3)	
2	12 (48.0)	90 (48.1)	102 (48.1)	
3	10 (40.0)	59 (31.6)	69 (32.6)	
4	2 (8.0)	10 (5.4)	12 (5.7)	
Cancer Stage N				0.34
0	10 (38.5)	65 (32.5)	75 (33.2)	
1	6 (23.1)	82 (41.0)	88 (38.9)	
2	6 (23.1)	30 (15.0)	36 (15.9)	
3	4 (15.4)	23 (11.5)	27 (12.0)	
Extranodal Metastases	6 (21.4)	25 (12.1)	31 (13.2)	0.23

RESULTS

- 372** patients underwent ILR at our institution from 2018 through 2023.
- 236 of these patients completed at least 2 years of follow up** in our multidisciplinary lymphedema clinic.
- Patients were on average 53 years old with a BMI of 28.5 and most likely to be Caucasian (76.7%) and nonsmokers (91%).
- The majority of patients received neoadjuvant chemotherapy (93.2%) & adjuvant radiation (93.6%).
- 28 (11.9%)** patients developed lymphedema despite ILR
- The majority of patients presented with T1 surgical pathology (36.7%), T2 clinical pathology (48.1%), N1 (38.9%), M1 (13.2%)
- There **was no significant difference in cancer staging (T/N/M)** between patients who developed lymphedema and those that did not
- Multivariate logistic regression demonstrated no increased risk of lymphedema with advanced disease
 - T:** OR=1.09 (0.75-1.59) p=0.66, **N:** OR 1.11 (0.74-1.66), p=0.63, **M:** OR=1.00 (0.73-5.37), p=0.18

DISCUSSION

- This data comment upon our institutions long term outcomes of ILR at the time of ALND.
- Patients who develop lymphedema despite ILR did not significantly differ in respect to cancer stage, and logistic regression demonstrates more advanced disease alone does not place patients at higher risk for developing BCRL following ILR.
- Consideration of this data is important for preprocedural counselling and reassuring from a practice standpoint.

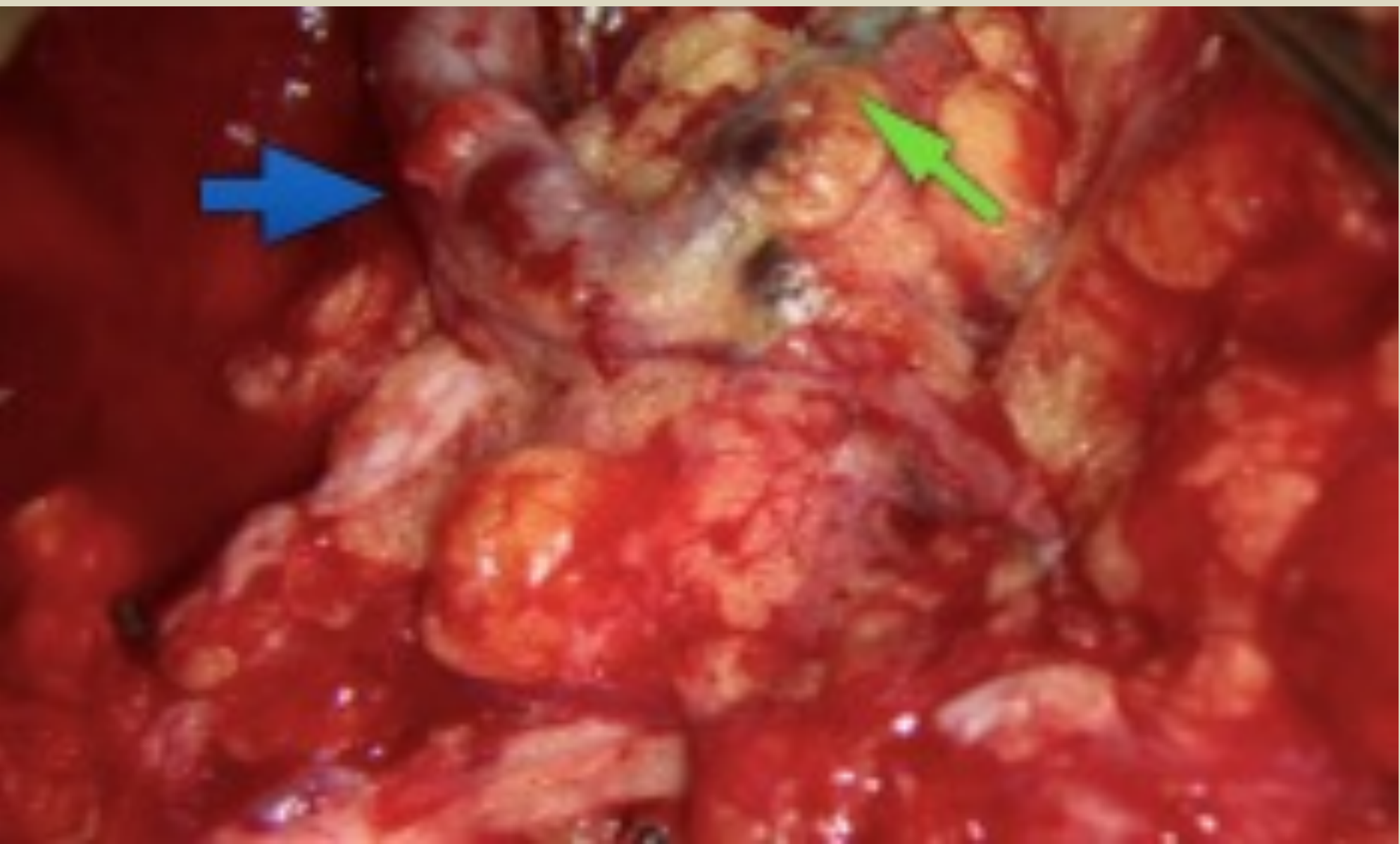


Image 1: Immediate lymphovenous bypass with end to end anastomosis of lymphatic channel (green arrow) and vein (blue arrow)

REFERENCES

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