

Pre-operative Lymphedema Risk Factors in Patients with Inflammatory Breast Cancer: Optimizing Patient Selection for LYMPHA



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Background

- Up to 47% of breast cancer patients develop lymphedema¹
- Patients with inflammatory breast cancer (IBC) are at high risk for lymphedema:
 - Axillary lymph node dissection (ALND)
 - Nodal radiation (XRT)
 - Taxane-based chemotherapy
- Lymphatic Microsurgical Preventive Healing Approach (LYMPHA) may prevent postoperative lymphedema
- Limited data regarding preoperative lymphedema risk factors in high-risk IBC population

Objectives

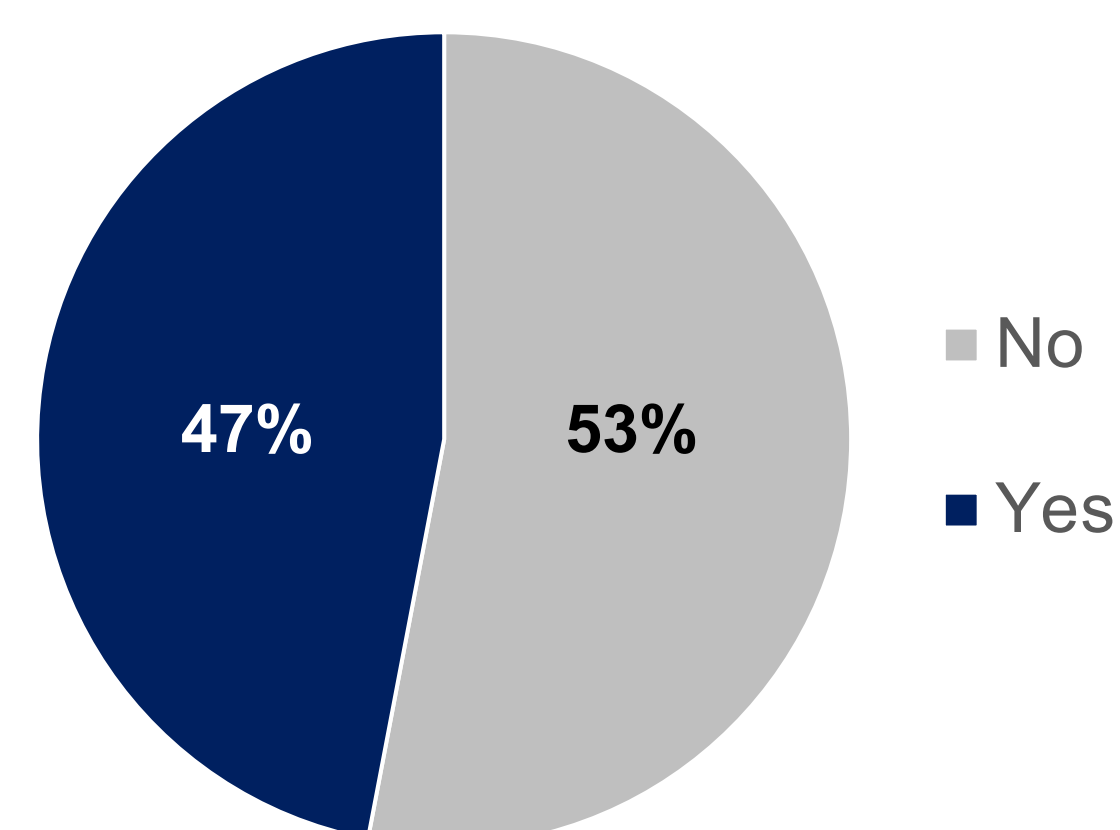
- Identify **preoperative** lymphedema risk factors in this patient population with **highly standardized treatment**
- Characterize lymphedema risk in IBC population to inform patient selection for LYMPHA

Methods

- Retrospective review of institutional IBC database
- Inclusion criteria:** IBC patients who underwent neoadjuvant chemotherapy, mastectomy with ALND + XRT
- Primary outcome:** self-reported lymphedema
- Multivariable logistic regression analysis

Results

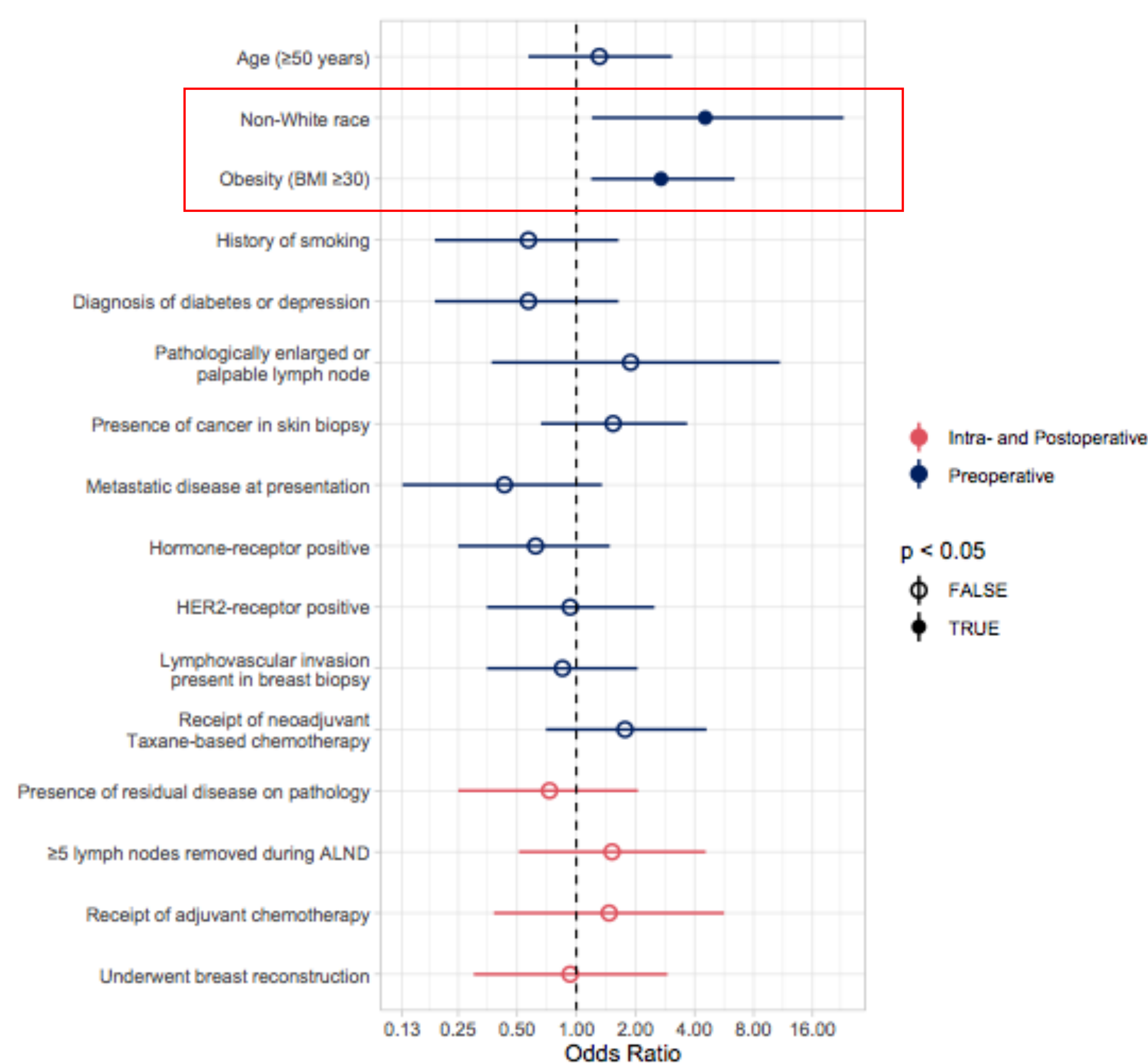
Percentage of Patients with Lymphedema (n = 356)



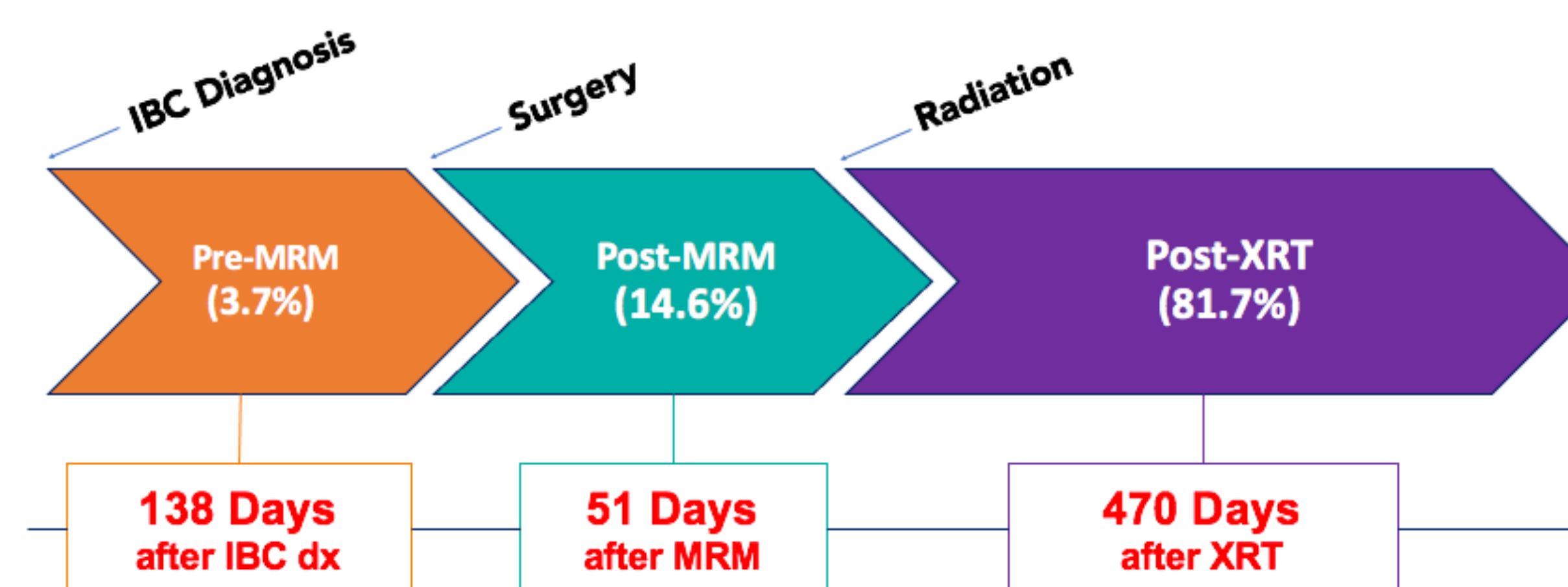
Patient Demographics and Characteristics (n = 356)

Age (years)	
Mean, median	51, 50
Ethnicity	
Hispanic	6 (1.7%)
Non-Hispanic	236 (66.3%)
Unknown	114 (32.0%)
Race	
White	308 (86.5%)
Black	25 (7.0%)
Other	23 (6.5%)
Obesity	
No (BMI ≤30)	156 (43.8%)
Yes (BMI ≥30)	129 (36.2%)
Unknown	71 (20%)
Smoking	
No	235 (66.2%)
Yes	115 (32.4%)
Unknown	5 (1.4%)
Comorbidities	
No diabetes or depression	295 (82.9%)
Diabetes or depression	61 (17.1%)
Breast biopsy ER+	
No	158 (70.2%)
Yes	67 (29.8%)
Breast biopsy PR+	
No	187 (57.9%)
Yes	136 (42.1%)
Metastatic disease at presentation	
No	306 (86.0%)
Yes	50 (14.0%)
Preoperative taxane-based chemotherapy	
No	79 (22.2%)
Yes	277 (77.8%)

Risk Factors for Lymphedema Development (n = 134)¹

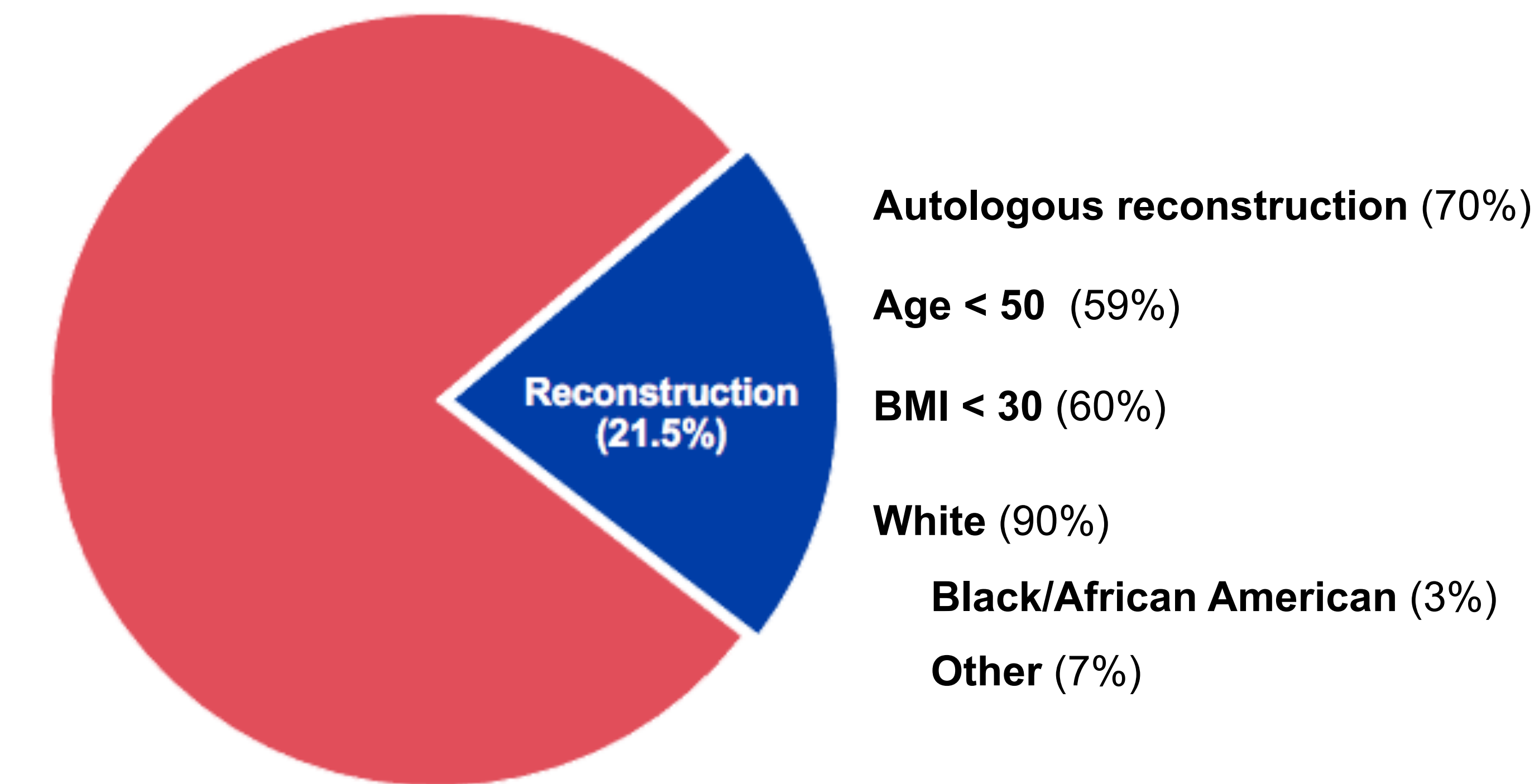


Timing of Lymphedema Development (n = 164)¹



¹Among 134 or 164 patients for whom complete risk factor and lymphedema timing data were available, respectively

Reconstruction Characteristics (n = 325)²



²Among 325 patients who had reconstruction data available.

Conclusions

- Patients with IBC are at high risk for lymphedema
 - Obesity and non-White race increase this risk, but not for early lymphedema development
- Early consultation with plastic surgery warranted for consideration of LYMPHA in this population
- Future studies investigating risk based on lymphedema severity using objective lymphedema measures are warranted

Acknowledgments

- Alan Z. Yang – data visualization
- Elizabeth Troll – database management

References

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- Johnson AR, et al. *Annals of Plastic Surgery*. 2019;82(4S):S234.