

Risk of Post-Mastectomy Lymphedema in Autologous Breast Reconstruction: A Multicenter 10-Year Analysis of 9,660 Patients Stratified By Flap Type and Timing of Reconstruction

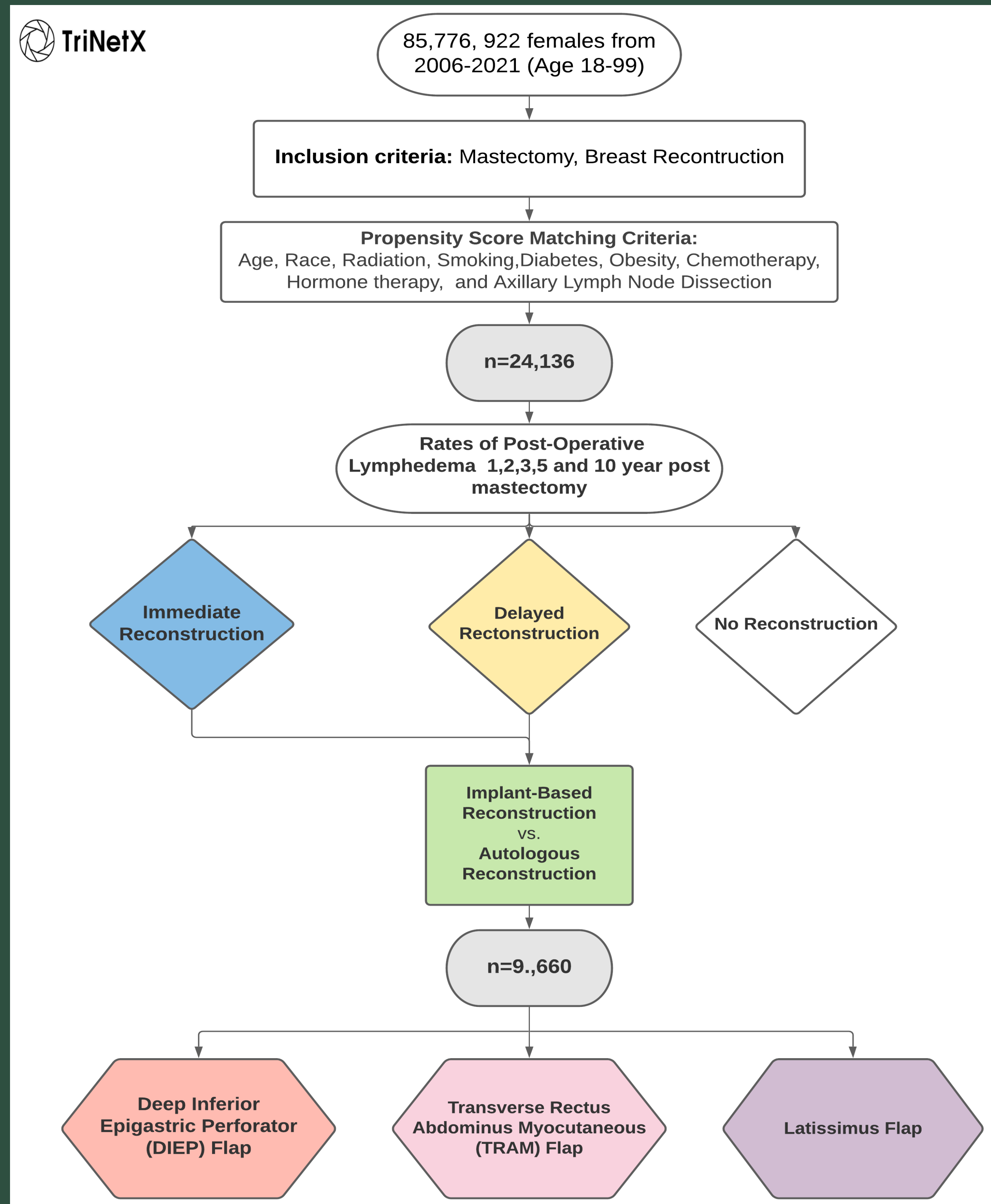
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Introduction

- Post-mastectomy, over 20% of women experience lymphedema^{1,2}
- Previous studies suggest a possible protective effect of breast reconstruction against lymphedema development
- This study aims to temporally analyze post-mastectomy lymphedema in autologous breast reconstruction by flap type and implant-based reconstruction (IBR) using a continuously-updated, federated electronic medical record network

Methods



Results

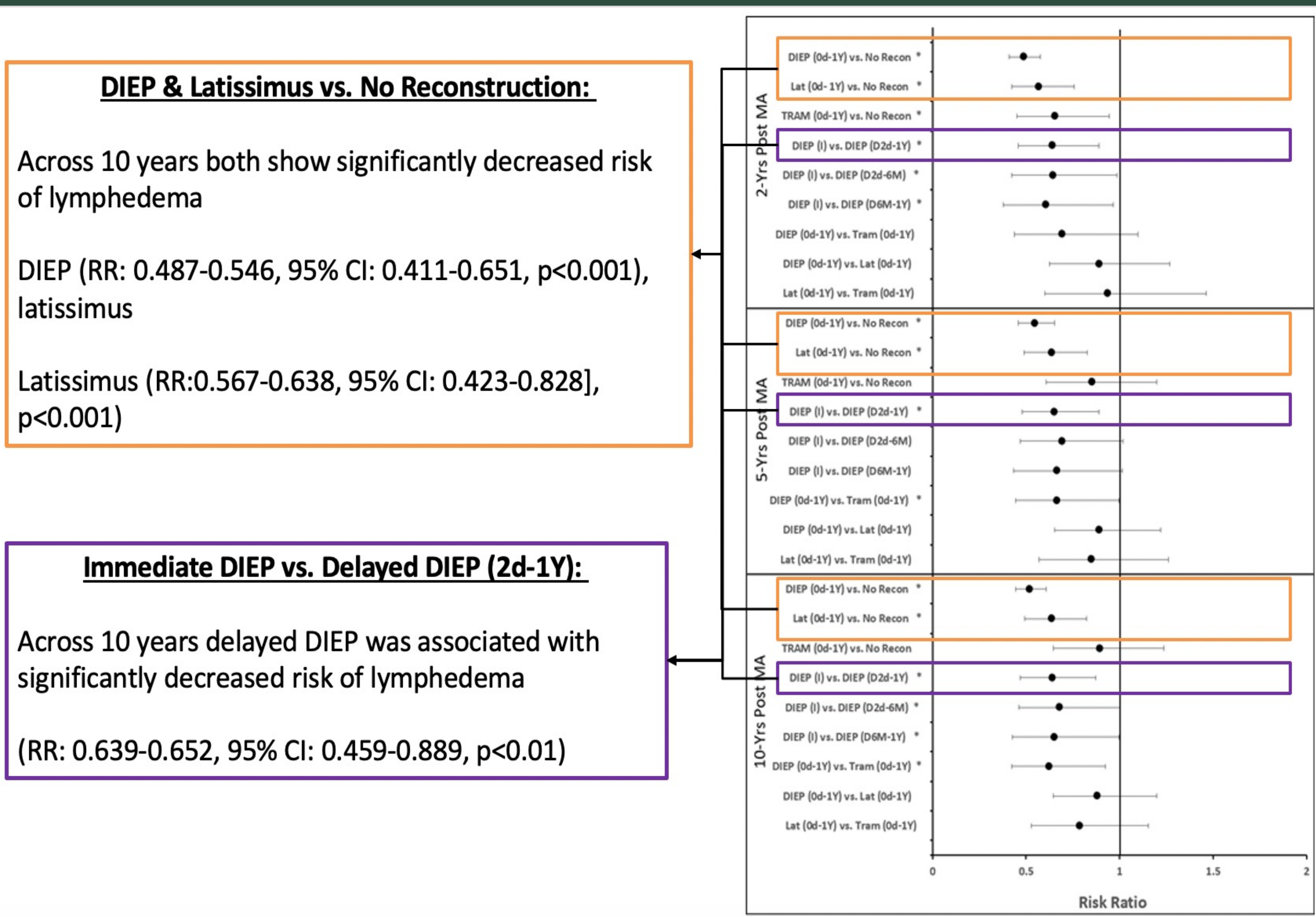


Figure 1: Forest Plot of Risk Ratios with 95% Confidence Intervals of Lymphedema Risk at 2, 5, and 10 Years Post-Mastectomy, Significant (p<0.05) findings are indicated by an asterisk*, Recon = Reconstruction, MA = Mastectomy, (I) = Immediate Reconstruction, (0d-1Y) = Reconstruction performed immediately-1 year post-mastectomy, (D2d-6M) = Delayed Reconstruction performed 2 days-6 months after Mastectomy, (D6M-1Y) = Delayed Reconstruction performed 6 months-1 year after Mastectomy, Lat = Latissimus flap, DIEP = Deep Inferior Epigastric Perforator flap, Tram = Transverse Rectus Abdominus Muscle Flap

Conclusion

- In autologous breast reconstruction, delayed DIEP appears to be most protective against post-mastectomy lymphedema
- Limitations include this study’s retrospective nature and reliance on medical coding
- Future prospective studies are warranted to confirm whether autologous breast reconstruction, and specifically delayed DIEPs, may be protective against post-mastectomy lymphedema.

References

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² Miller CL, Colwell AS, Horick N, et al. Immediate implant reconstruction is associated with a reduced risk of lymphedema compared to mastectomy alone: a prospective cohort study. Ann Surg. 263(2):399-405, 2016.