

Breast cancer incidence and screening in female-to-male transgender and non-binary patients undergoing mastectomy

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Fig.1 Pre-mastectomy photography

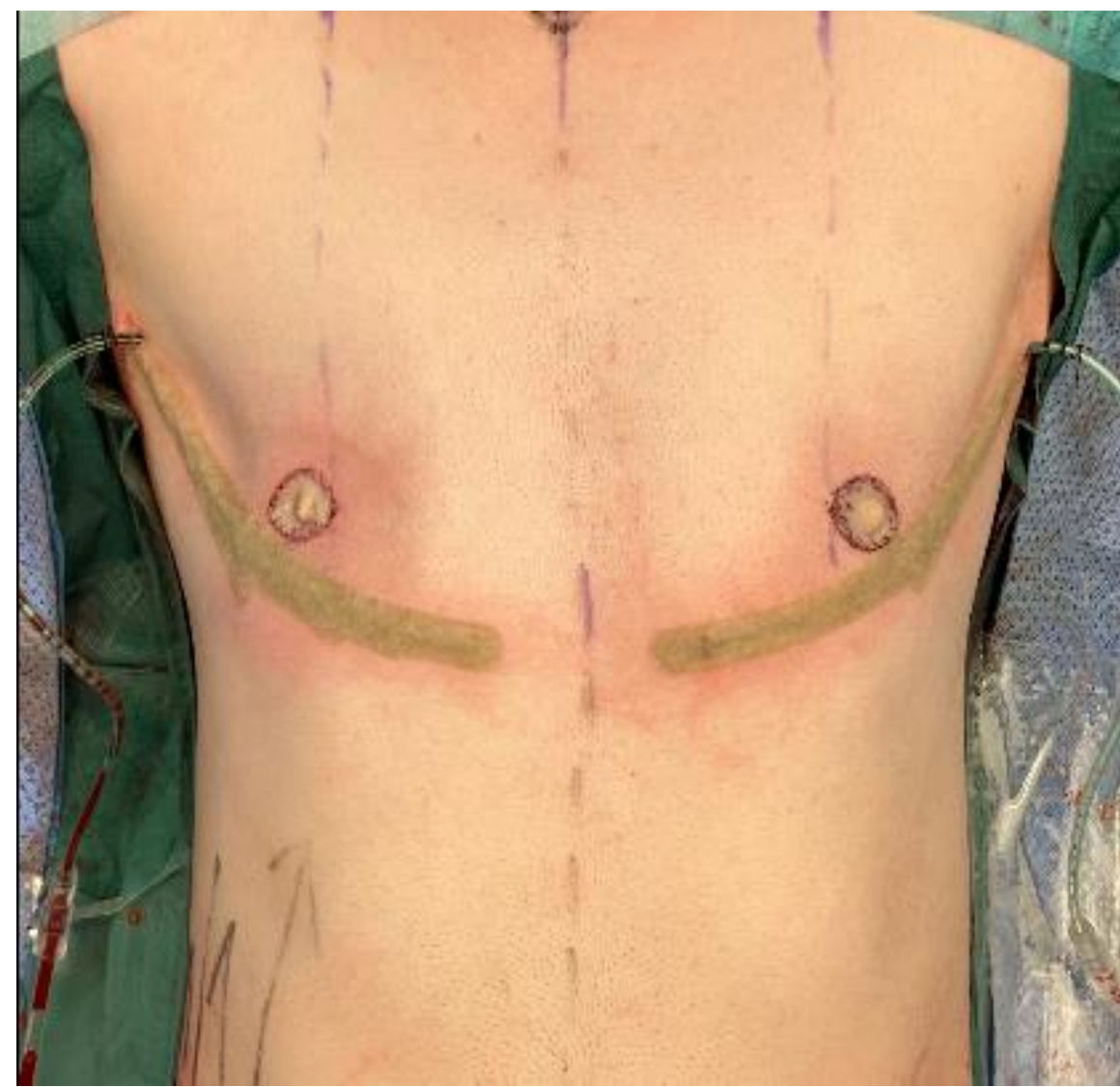


Fig.2 Double-incision mastectomy with NAC



Fig.3 Post-mastectomy photography

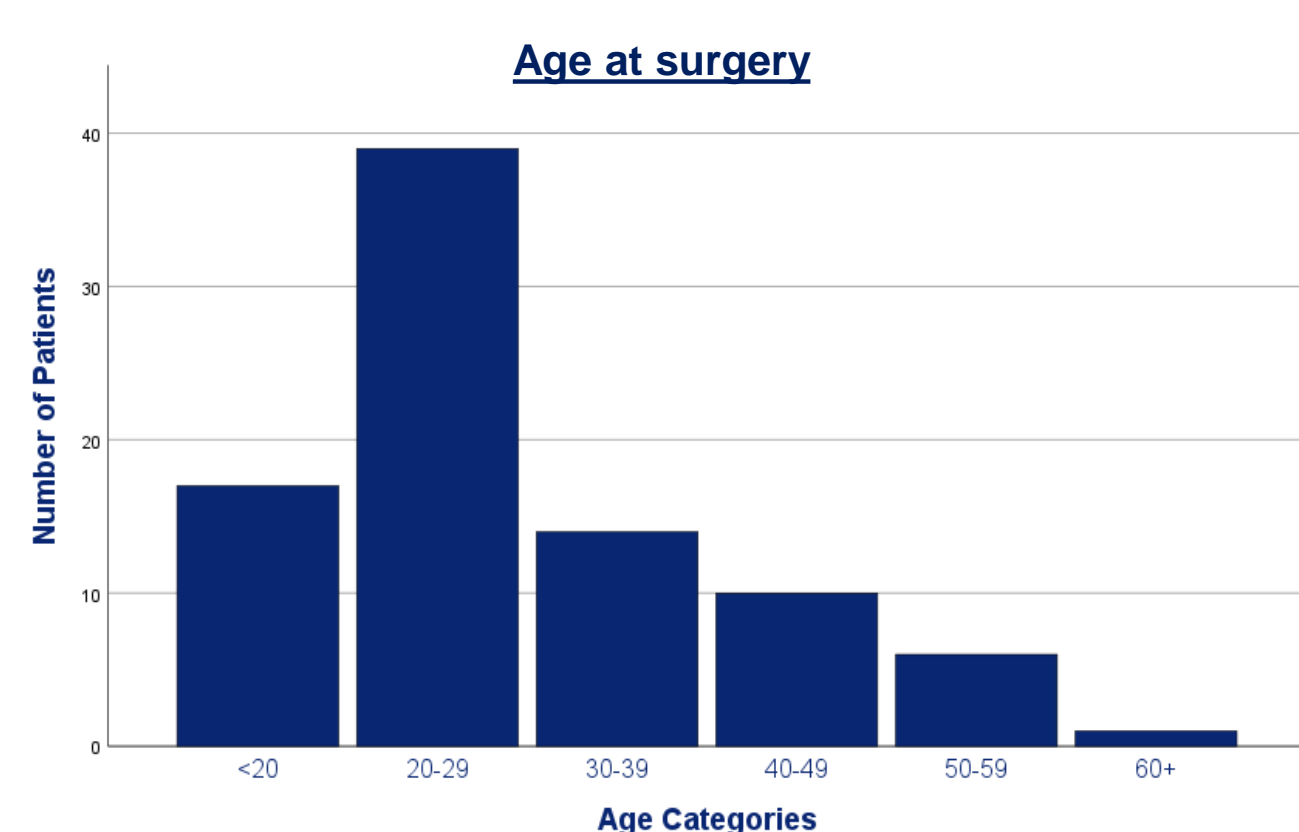


Fig.4 literature-PDF

Objectives

Since the introduction of breast cancer (BC) screening programs, early detection has improved and mortality has decreased. In 2024, updated screening guidelines recommend screening in women every other year starting at 40yrs. However, in female-to-male transgender (FtM) and non-binary individuals, the benefits of systematic screening are harder to assess due to their low representation in large databases. Clear screening guidelines are lacking. This study evaluated the presence of preoperative BC screening and incidence in mastectomy specimens of FtM and non-binary patients who underwent gender-affirming mastectomies at our institution.

	Age at Surgery	
	<40 years (n=69)	≥40 years (n=17)
Pre-operative Imaging		
Yes	10 (14.5%)	4 (23.5%)
No	59 (85.5%)	13 (76.5%)
Imaging Modality		
Ultrasound	10 (14.5%)	3 (17.6%)
Mammography	0	2 (11.8%)
MRI/Other	0	0



Methods

A retrospective analysis of the use of preoperative imaging for BC screening was performed. Furthermore, pathology reports from FtM and non-binary patients who underwent gender-affirming mastectomies between 2010 and 2023 were assessed for BC or a precursor thereof.

Results

87 FtM (75) or non-binary patients (12) (biologically female) underwent gender-affirming mastectomy at our institution. Only 22% of patients underwent preoperative gynecological examination and 16% breast imaging. 95.4% of mastectomy specimens did not show any pathological findings. One patient (51yrs, testosterone use <1yr) was diagnosed with hormone receptor-positive, multifocal invasive ductal carcinoma after surgery. One other patient had atypical ductal hyperplasia of the right breast.

Conclusion

Clear guidelines on BC screening in FtM transgender and non-binary individuals are lacking. Although BC incidence in these patients is generally low, we recommend preoperative BC screening in all FtM and non-binary patients 40yrs or older planning to undergo mastectomy.

Discussion

The risk of BC in transgender and non-binary patients depends on multiple factors, including family history, age and stage of transition, use and duration of hormone therapy and prior surgery. FtM transgender persons generally have a lower risk of BC when compared to cis-women. In our study, most patients were <40yrs at surgery and did not undergo preoperative breast imaging. Invasive BC was found in one patient after mastectomy.

