

Is breast-conserving surgery a feasible treatment option for breast cancers in augmented breasts?

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Introduction The study aims to evaluate the treatment choices and disease characteristics of breast cancers in patients with or without previous augmented mammoplasty. The treatment outcomes of patients who received breast conserving surgery (BCT) in augmented breasts as compared to those who received mastectomy with implant reconstruction were studied.

Conclusion History of augmentation mammoplasty did not affect the choice of treatment in breast cancer patients. BCT with adjuvant radiotherapy is non-inferior to mastectomy with implant reconstruction in terms of rate of capsular contracture.

Materials and method A retrospective case-control study was performed of patients with prior breast augmentation undergoing breast cancer treatment by a surgeon at private practice between 2014 and 2021. Controls were propensity-score matched with age and BMI in a 1:1 ratio.

Basic demographics

25 breast cancer patients with previous augmentation mammoplasty



25 breast cancer patients propensity-score matched with age and BMI

	Augmented group (N=25)	Non-augmented group (N=25)	p-value
Age			0.264
Median (Range)	48.92 (29-73)	51.40 (31-64)	
BMI			0.229
Median (Range)	20.14 (16.6-26.1)	21.29 (15.9-28.2)	

Capsular contracture in all patients with implant surgery

	Capsular contracture	No capsular contracture	p-value
BCT with adjuvant radiotherapy	4	8	0.601
Mastectomy with implant reconstruction	2	6	

Capsular contracture in augmented cohort with implant surgery

	Capsular contracture	Pre-existing capsular contracture	p-value
BCT with adjuvant radiotherapy	4	3	0.378
Mastectomy with exchange of implant	2	1	

Surgery to the breast

	Augmented group (%)	Non-augmented group (%)	p-value
Breast conserving surgery (BCT)	12 (48)	14 (56)	0.778
Mastectomy	13 (52)	11 (44)	

Choice of reconstruction after mastectomy

	Augmented group (N=13) (%)	Non-augmented group (N=11) (%)	p-value
No reconstruction	2 (15.4)	6 (54.5)	0.036
Reconstruction	11 (84.6)	5 (45.5)	
Implant	7 (63.6)	3 (60)	0.701
Latissimus dorsi flap with implant	1 (9.1)	0 (0)	
TRAM flap	3 (27.3)	2 (40)	