

Satisfaction With Breasts Among Patients Undergoing Abdominal Free Flap Breast Reconstruction: Identification Of Factors In 959 Patients

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Background

- Compared to implant-based reconstruction, autologous reconstruction is/has...
 - More natural in breast shape due to its consistency
 - Longer-lasting
 - Increased success rates in complex cases involving prior radiation and device infection
 - Higher Satisfaction with Breasts, Psychosocial Well-being, and Sexual Well-being both short and long-term
 - More cost effective for patients with increased life expectancy
- Of all donor sites, abdomen is the most common

Objectives

- Assess factors associated with patients’ Satisfaction with Breast at 1-year among abdomen-based autologous reconstruction
- Examine the impact of revision procedures on patients’ long-term satisfaction

Methods

Study population:

- Post-mastectomy abdomen-based free flap breast reconstruction patients
- 2010-2021

Inclusion:

- Patients with postoperative BREAST-Q Satisfaction with Breasts at 1-year

Revision procedures:

- Breast revisions- fat grafting, dog ear excision, scar revision
- Nipple areolar complex reconstruction

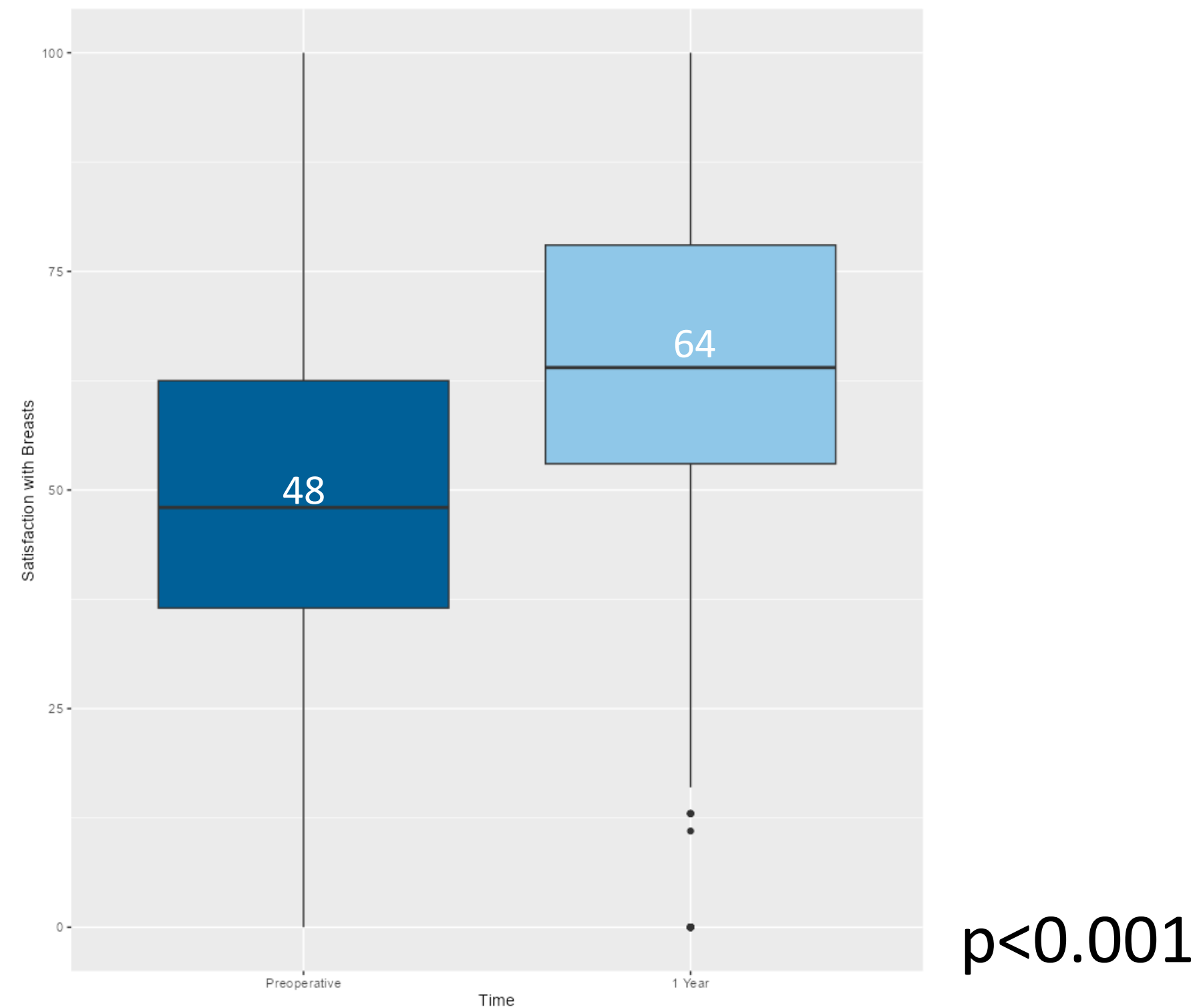
A minimal clinically important difference (MCID) of 4 points was considered clinically important.

Results

959 Total patients

Characteristic		Characteristic	
Age at Surgery	51 (45, 57)	Chemotherapy	744 (78%)
Race		Radiation	301 (31%)
White	663 (69%)	Mastectomy Type	
Asian	75 (7.8%)	Skin sparing	884 (92%)
Black	122 (13%)	Nipple sparing	75 (7.8%)
Other	99 (10%)	Timing of Reconstruction	
Ethnicity		Immediate Reconstruction	506 (53%)
Not Hispanic	826 (86%)	Delayed Reconstruction	453 (47%)
Hispanic or Latino	97 (10%)	Laterality	
Unknown	36 (3.8%)	Bilateral	472 (49%)
Marital Status		Unilateral	487 (51%)
Married	680 (71%)	Prophylactic	
Separated	98 (10%)	Yes	449 (47%)
Single	181 (19%)	No	510 (53%)
BMI	26.4 (23.5, 29.9)	Necrosis	155 (16%)
Smoking Status		Flap Loss	14 (1.5%)
Never Smoker	723 (75%)	Salvaged Flap Compromise	18 (1.9%)
Current Smoker	17 (1.8%)	Wound Complications	59 (6.2%)
Former Smoker	219 (23%)	Infection	121 (13%)
Comorbidity		Seroma	45 (4.7%)
Diabetes	82 (8.6%)	Hematoma	60 (6.3%)
Cardiovascular Disease	321 (33%)	Readmission within 90 days	84 (8.8%)
Hypertension	273 (28%)	Return to OR within 90 days	148 (15%)
History of psychiatric diagnosis	531 (55%)	Revision Procedures	
Lymphedema	150 (16%)	Breast revision	601 (63%)
ALND	286 (30%)	Nipple Reconstruction	376 (39%)
SLNB	658 (69%)		

BCT vs. Breast Reconstruction Satisfaction with Breasts



Factors Associated with Decreased 1-Year Postoperative Satisfaction with Breasts

Satisfaction with Breasts preoperatively	$\beta = 0.11$
Older age at surgery	$\beta = -0.17$
Asian race (vs. White)	$\beta = -6.3$
Higher BMI	$\beta = -0.29$
History of psychiatric diagnoses	$\beta = -3.6$
Radiation	$\beta = -4.7$
Mastectomy skin flap/nipple necrosis	$\beta = -4.1$

Revision Procedures and Satisfaction with Breasts

Characteristic	Beta	95% CI ¹	p-value
Breast revision	-1.8	-4.6, 1.1	0.2
Nipple areolar complex Reconstruction	2.6	-0.31, 5.5	0.080

Conclusion

- Patients who undergo abdomen-based autologous breast reconstruction have an increase in Satisfaction with Breasts at 1-year postoperatively.
- Decreased preoperative score, older age, Asian race, history of psychiatric diagnosis, radiation, and mastectomy skin flap/nipple necrosis were associated with decreased Satisfaction with Breasts.
- Revision procedures, interestingly, were not associated with increased Satisfaction with Breasts at 1-year. It is possible that revision procedures may have been necessary for those who underwent the surgeries to reach a similar postoperative score to those who did not undergo the procedures.

References

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