

Balancing the Scales: Caution in Reduction Mammoplasty Recommendations for Obesity Class III Patients

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INTRODUCTION

- The prevalence of obesity has risen worldwide, posing a problem to surgeons as obesity is a well-known risk factor for surgical outcomes.
- While prior studies have suggested performing reduction mammoplasty (RM) in patients with obesity, the variance in outcomes and quality-of-life (QoL) for obesity classes are ill-defined.^{1,2}
- We investigated whether obesity classes should be considered for RM by examining the surgical outcomes and QoL across different weight classes, aiming to pinpoint when outcomes become less favorable.

METHODS

- Patients undergoing RM by nine surgeons from 2016-2022 were included.
- BMI cohorts were formed according to CDC guidelines: Healthy (18.5-24.9 kg/m²), overweight (25- 29.9 kg/m²), obesity class I (30-34.9 kg/m²), II (35-39.9 kg/m²) and III (> 40 kg/m²).
- QoL was assessed by comparing pre- and postoperative BREAST-Q scores within cohorts.
- A comparison analysis was performed between weight classes.

References

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RESULTS

- A total of 461 RM patients were identified (healthy: 83, overweight: 178, I:142, II:39, III:19).
- Higher BMI cohorts, especially class III, had significantly higher rates of surgical site infections (SSI), fat necrosis, dehiscence, delayed healing, minor T-point breakdown, and surgical site occurrence requiring procedural intervention

TABLE. Postoperative Complications Between BMI Cohort							
	<25 (N=83)	25-30 (N=178)	30-35 (N=142)	35-40 (N=39)	>40 (N=19)	Total (N=461)	p value
Cellulitis	1 (1.2%)	5 (2.8%)	4 (2.8%)	0	1 (5.3%)	11 (2.4%)	0.68
Surgical Site Infection	0	2 (1.1%)	2 (1.4%)	0	3 (15.8%)	7 (1.5%)	< 0.01
Seroma	2 (2.4%)	0	3 (2.1%)	0	0	5 (1.1%)	0.25
Hematoma	2 (2.4%)	8 (4.5%)	9 (6.3%)	1 (2.6%)	1 (5.3%)	21 (4.6%)	0.73
Dehiscence	3 (3.6%)	5 (2.8%)	3 (2.1%)	2 (5.1%)	6 (31.6%)	19 (4.1%)	< 0.01
Nipple Areolar Complex Necrosis	0	3 (1.7%)	3 (2.1%)	1 (2.6%)	1 (5.3%)	8 (1.7%)	0.39
Fat Necrosis	1 (1.2%)	9 (5.1%)	10 (7%)	0	4 (22.2%)	24 (5.2%)	0.01
Delayed Healing	4 (4.8%)	20 (11.2%)	24 (16.9%)	11 (28.2%)	8 (42.1%)	67 (14.5%)	< 0.01
Minor T-Point Breakdown	9 (10.8%)	28 (15.7%)	34 (23.9%)	9 (23.1%)	10 (52.6%)	90 (19.5%)	< 0.01
Wide Scarring	4 (4.8%)	11 (6.2%)	16 (11.3%)	4 (10.3%)	1 (5.3%)	36 (7.8%)	0.58
Keloid	0	1 (0.6%)	3 (2.1%)	1 (2.6%)	0	5 (1.1%)	0.45

- When compared to the other weight classes independently, class III was associated with unfavorable outcomes (p<0.05).

TABLE. Pairwise Comparison Tests for Significance Between BMI Cohorts (p-value)										
Postoperative Outcome	Healthy vs Overweight	Healthy vs Class I	Healthy vs Class II	Healthy vs Class III	Overweight vs Class I	Overweight vs Class II	Overweight vs Class III	Class I vs II	Class I vs III	Class II vs III
Surgical Site Infection	0.836	0.723	NaN	0.004	1	1	0.002	1	0.007	0.055
Fat Necrosis	0.245	0.099	1	0.002	0.599	0.322	0.022	0.188	0.091	0.013
Delayed Healing	0.15	0.014	0.001	0.000	0.185	0.013	0.001	0.182	0.024	0.447
Minor T-Point Breakdown	0.388	0.0234	0.133	0.000	0.082	0.384	0.000	1	0.000	0.051

RESULTS

Significant improvement in average postoperative QoL scores in satisfaction with breast, psychosocial well-being, sexual well-being, and physical well-being were seen in all cohorts except class III (p<0.05).

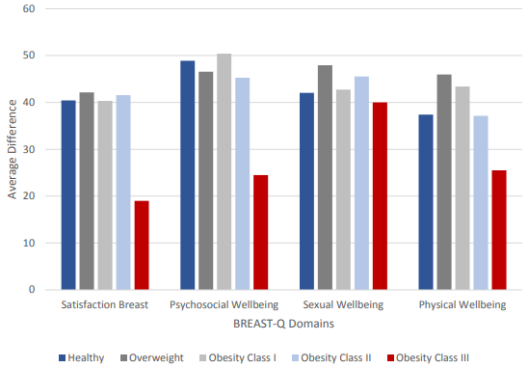


FIGURE demonstrates the average difference between preoperative and postoperative BREASTQ scores between BMI Cohorts

CONCLUSIONS

- Severe obesity class III patients undergoing RM have a higher yet still acceptable risk profile and should be counseled on the risks despite the improved quality of life.
- Our study found the higher incidences of SSI, fat necrosis, dehiscence, delayed healing, minor T-point breakdown, and reoperations in obesity class III patients.
- Class III had overall improved QoL in all domain, however, were significantly less when compared to the healthy cohort.
- These findings suggest that this group differs from the others and should be counseled accordingly.