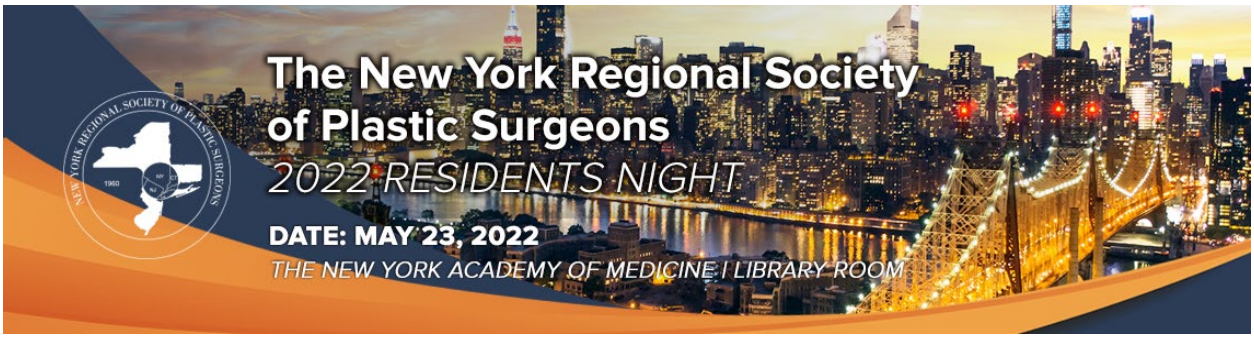

52269-Liao

52269: A Systematic Review of Breast-Q Outcomes Following Reduction Mammaplasty

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Purpose: The validated BREAST-Q Questionnaire has become increasingly utilized to evaluate patient satisfaction following reduction mammaplasty, but no systematic reviews or meta analyses of reduction mammaplasty BREAST-Q outcomes have been performed. Our study aims to evaluate the influence of patient characteristics and surgical factors on BREAST-Q scores for patients undergoing reduction mammaplasty.

Methods/Technique: A comprehensive review of the literature through August 06, 2021 was conducted to identify publications utilizing the BREAST-Q survey to evaluate patient satisfaction after reduction mammaplasty. Mean differences for pre-operative and post-operative BREAST-Q scores were determined. Univariate analysis was carried out comparing mean patient BMI, mean age, mean resected weight, complication rate, pedicle used (superomedial vs. inferior), and incision type (Wise pattern vs. vertical incision) against pre- and post-operative BREAST-Q scores. Linear regression and Spearman's rank correlation coefficients (SRCC) with corresponding p-values were calculated for each of these variables with respect to BREAST-Q scores.

Results/Complications: Literature search identified 378 unique articles, of which 14 met our inclusion criteria, yielding 4,337 patients with a survey response rate of 69.2%. The time between reduction and completion of the post-operative BREAST-Q scale ranged from <3 months post-operative to 12 months post-operative (8/14 studies). The average age ranged from 15.8 to 55 years. Mean BMI ranged from 22.5 to 32.4 kg/m2. Bilateral mean resected weight ranged from 323 g to 1846 g. The overall complication rate was 19.9% (11/14 studies). The most commonly used incision types (11/14 studies) overall were Wise pattern reduction (74.9%), Regnault's "B" technique (13.8%), and vertical (9.9%). The most commonly utilized pedicle

(8/14 studies) was superomedial, accounting for 50.9% (532/1046) of operations that specified. The inferior pedicle was used 19.8% (207/1046) of the time.

On average, “Satisfaction with Breasts” increased 52.1±0.9 points (p<.0001), “Psychosocial Well-Being” increased 43.0±1.0 points (p<.0001), “Sexual Well-Being” improved 38.2±1.2 points (p<.0001), and “Physical Well-Being” improved by 27.9±0.8 points (p<.0001). Positive correlations were identified between mean age and pre-operative sexual well-being (+0.61, p<.05), BMI and post-operative satisfaction with breasts (+0.53, p<.05), and resected weight and post-operative satisfaction with breasts (+0.61, p<.05). Negative correlations were identified between BMI and pre-operative physical well-being (-0.78, p<.01). Superomedial pedicle usage was negatively correlated with post-operative physical well-being (-0.67, p<.05) while Wise pattern incisions were negatively correlated with post-operative sexual well-being (-0.66, p<.05) and physical well-being (-0.70, p<.05). Usage of a vertical incision appeared to be negatively correlated against satisfaction with the NAC post-operative (-0.78, p<.05). No significant correlations were noted with complication rates and inferior pedicle use. Most notably, none of the analyzed characteristics had a statistically significant correlation with the difference between pre-operative and post-operative BREAST-Q scores.

Conclusion: Breast reduction surgery consistently and significantly improves patient outcomes according to the BREAST-Q. Although either pre-operative or post-operative scores may be individually influenced by BMI, resected weight, pedicle used, or incision type, these variables demonstrated no statistically significant effect on the average change of these scores. Taken together, the data suggests that breast reductions provide substantial improvement in patient-reported satisfaction regardless of any of these patient-specific or surgical factors.

		Satisfaction with the breasts	p-value	Psychosocial well-being	p-value	Sexual well-being	p-value	Physical well-being	p-value
Age	Pre-Op	0.52448	0.08002	0.42657	0.1667	0.60909	0.0467	0.44056	0.15174
	Post-Op	0.13047	0.64302	0.10555	0.70813	0.15182	0.60439	-0.12332	0.66148
	Difference	0.06667	0.86469	0.19247	0.61981	0.11905	0.77889	0.16667	0.66823
BMI	Pre-Op	-0.12587	0.69668	-0.01399	0.96559	-0.36364	0.27164	-0.78322	0.00259
	Post-Op	0.52857	0.0428	-0.0286	0.91942	-0.26593	0.35811	-0.34643	0.2059
	Difference	-0.23333	0.5457	-0.20921	0.58905	-0.14286	0.73577	0.41667	0.26459
Resected Weight	Pre-Op	-0.36667	0.33174	-0.55	0.12498	-0.26667	0.48792	-0.1	0.79797
	Post-Op	0.60839	0.03581	0.01051	0.97414	-0.35664	0.25514	-0.39161	0.20806
	Difference	-0.07143	0.87905	0.48651	0.26825	0.10714	0.81915	0.64286	0.11939
Complication Rate	Pre-Op	0.45238	0.2604	0.52381	0.18272	0.09524	0.82251	-0.64286	0.08556
	Post-Op	-0.06655	0.83719	-0.22105	0.48992	0.03152	0.92252	-0.10508	0.74518
	Difference	-0.10714	0.81915	-0.09009	0.84767	0	1	0.35714	0.43161
% Superomedial Pedicle	Pre-Op	-0.37143	0.46848	-0.08571	0.87174	-0.42857	0.3965	0.02857	0.95716
	Post-Op	0.53394	0.09069	-0.12423	0.71591	-0.45766	0.15694	-0.66742	0.02485
	Difference	0.5	0.391	0.71818	0.1718	0.6	0.28476	0	1
% Wise Pattern	Pre-Op	-0.37685	0.46148	-0.72471	0.10324	-0.23191	0.65837	0.46382	0.35416
	Post-Op	0.27245	0.41764	-0.4661	0.14846	-0.66233	0.02638	-0.69521	0.01755
	Difference	-0.46169	0.43377	-0.39474	0.51078	-0.41039	0.49254	-0.66689	0.21889
% Inferior Pedicle	Pre-Op	-0.14825	0.75108	0.2965	0.51848	-0.2965	0.51848	-0.2965	0.51848
	Post-Op	0.04301	0.90007	0.11975	0.7258	0.03346	0.92221	0.49226	0.12401
	Difference	0.44721	0.45018	-0.57354	0.31204	-0.22361	0.71769	0.22361	0.71769
% Vertical Incision	Pre-Op	0.37685	0.46148	0.69572	0.12479	-0.11595	0.82685	-0.57977	0.22778
	Post-Op	0.23355	0.51608	-0.30584	0.39012	0.02595	0.94327	-0.24652	0.49232
	Difference	0.63246	0.36754	0.5	0.5	0.63246	0.36754	0.73786	0.26214