

Introduction

The breast is an aesthetic and functional organ and a symbol of motherhood, femininity, and sexuality, which typifies the central focus of a woman's anatomy. For those reasons, breast surgery should take into account its importance to each woman's identity.

Breast conservation surgery (BCS) combined with postoperative radiotherapy has become the preferred locoregional treatment for the majority of patients with early-stage breast cancer, with equivalent survival to that of mastectomy and improved body image and lifestyle scores.

Oncoplastic techniques for breast conservation encompass a wide variety of procedures. These are often described as either level I or level II procedures. Level I OPS techniques are those employed when less than 20% of breast volume is excised, and no mammoplasty is needed for reshaping. They include glandular flaps that can be advanced or rotated to fill the cavity. Level II techniques, based on a therapeutic mammoplasty with associated skin excision, are required when a larger volume is resected.

Oncoplastic breast surgeons should always choose the simplest procedure that will maintain or improve the aesthetics. Four factors are significant for the identification of patients who would benefit from OBCS. When considered together, they provide a sound basis for determining when and what type of OBCS to perform. These are: excision volume, tumor location, glandular density and breast volume.

As a general rule, level I OBCS includes undermining the breast from both the skin and pectoralis fascia, so they are less appropriate for less dense breasts with a more fatty component. These techniques are best performed on women with dense breasts, especially if significant parenchymal mobilization is used. Denser breast tissue can be mobilized easily, without risk of fat necrosis, compared to a less dense breast with a more fatty component.

Aim of the Work

This study aims to assess the efficacy and oncologic outcome of using glandular flap in level I oncoplastic cancer breast surgery as regards to safety, cosmetic effect and postoperative complications

Patients and Methods

The current prospective observational study was conducted on patients with breast cancer admitted to the surgical oncology unit, Alexandria Main University Hospital from February 2022 to Mars 2023. Patients who underwent oncoplastic breast conserving surgery level 1 were included. Excluded from the study were patients with any indication of mastectomy, diffused ductal carcinoma, positive BRACA mutation, recurrent tumor, history of radiation therapy.

All patients were followed closely in the postoperative period by the oncological surgeons for monthly for 3 months. The esthetic evaluation was performed by two other independent surgeons. An acquired-informal questionnaire was used to grade the patient's level of satisfaction with the esthetic results.

Results

The current study included 30 patients who underwent oncoplastic breast conserving surgery level 1 for invasive or in-situ, non-metastatic or multifocal breast cancer in any location in the breast. The median age of our patients was 50 years (range from 34-68 years) with a mean BMI of 26.93±3.17. The tumor size in all studied patients ranged from 1.4 to 3 cm with diagnosis of infiltrating ductal carcinoma on 27 patients (90.00%); two patients (6.66%) with infiltrating lobular carcinoma and only one patient (3.33%) with ductal carcinoma in situ. Regarding the cosmetic outcome, the average of Excellence of 65.99% followed by 26.67% of Good and 7.33% of Fair.

Table 1: Comparison of the study between complications and demographic data with radiology profile

Variable	Total (n:30)	Complications		P value
		No(n=26)	Yes(n=4)	
Medical illness	6(20%)	6(23.08)	1(25%)	687
Cup size				0.023
B	3(10%)	1(3.85%)	2(50%)	
C	11(36.67)	9(34.62%)	2 (50%)	
D	15(50%)	15(57.69%)	0	
DD	1(3.33%)	1(3.85%)	0	
Breast density				352
Scattered fibroglandular tissue	13(43.33%)	13(38.46%)	0	
Heterogeneously dense breasts	13(43.33%)	10(38.46%)	3(75%)	
Extremely dense breasts	4(13.33%)	3(11.54%)	1(25%)	

Table 2: Comparison of the study between patient satisfaction and peri and postoperative data

Variable	Total (n:30)	Patient Satisfaction		P value
		Not satisfied (n:3)	Satisfied (n:27)	
Negative margin at first attempt	27(90%)	3 (100%)	24(88.89%)	1000
at second attempt	3(10%)	0(0.00%)	3(11.11%)	
Sentinel LN found	4(13.33%)	1 (25%)	24(88.89%)	858
Complications				0.15
NO	27(90%)	1(33.33%)	26(96.30%)	
YES	3(10%)	2(66.67%)	1(3.70%)	

Demographic data, cup size and breast density were used to assess the complications outcomes. Only Complications had statistically significant difference to the cup size ($p=0.23$) mainly cup size B and C.

Conclusion

Oncoplastic breast conserving surgery level I using glandular flap reduce the rate of postlumpectomy deformity and the cosmetic outcome remains consistently high. This appears to be indicative of a satisfactory cosmetic result in terms of patient perception. Complications are less common using glandular flap and are the leading point of patient dissatisfaction.