

Comparative Study between Level 1 Oncoplasty and Round Block Excision in Management of Early Stage Breast Cancer

OMAR A. NEGM, M.Sc.; MOHAMED A. KHALFALLA, M.D.; AHMED G. OSMAN, M.D. and MOATASEM B. ERFAN, M.D.

The Department of General Surgery, Faculty of Medicine, Ain Shams University

Abstract

Background: Breast cancer is the most frequent cancer in women and the world's second most common cancer. About 268,600 newly diagnosed women with invasive illness in the United States in 2019. Therefore, the aim of the present thesis was to review the literature of the management of early stage breast cancer and compare between 2 conservative breast surgeries which is round block technique and level one oncoplasty technique.

Aim of Study: To compare between two conservative breast surgeries, which are level 1 oncoplasty and round block excision. The comparison will be in the cosmetic outcome, incidence of complications and the time of operation.

Patients and Methods: In this study, 78 patients with early stage breast cancer were managed by conservative breast surgery between December 2020 and January 2022 patients were divided in 2 groups with 39 patients in each group. In the first group, were treated by circumareolar technique and in the second group, breast cancer treated by round block technique. The 2 techniques were compared according to operative time, cosmetic appearance postoperative, incidence of complications and patients satisfaction.

Results: In this study, we encountered early wound complications in 24 patients (31.2%) patients. 15 patients (19.2%) developed postoperative seroma all were without drain: All of these were associated with excision of large breast tissue volume and large-sized breasts. Three patients (3.8%) developed postoperative skin infection. 6 patients (7.7%) developed delayed wound healing. We found that 5 (11%) patients had other comorbidities (diabetes mellitus), and the 1 patient had a large-sized breast with moderate ptosis with BMI of 36kg/m².

Conclusion: The primary goal of tumor excision using breast-conserving surgery is to achieve tumor-free resection margins, although an important secondary goal in breast-conserving surgery is to achieve a satisfactory cosmetic outcome, a factor crucial to patient satisfaction and quality of life.

Key Words: SSRI – GnRH – HER-2 – sBCS.

Introduction

BREAST cancer is the most frequent cancer in women and the world's second most common cancer. In 2018, there were approximately 2 million new cases. According to data sources, about 268,600 newly diagnosed women with invasive illness (48,100 cases of ductal carcinoma in situ [DCIS]) were diagnosed in the United States in 2019, accounting for 15.2 percent -30 percent of all new cancer cases among women [1].

Breast cancer kills over 42,000 women per year in the United States, making it the second-leading cause of cancer death among women behind lung cancer. Breast cancer has a lifetime risk of mortality of roughly 2.6 percent [2].

Wide excision was the standard surgical therapy for breast cancer at the time, but it was linked with a high risk of local recurrence and poor survival. In 1894, William Halsted developed radical mastectomy. The local recurrence rate was significantly reduced after radical mastectomy (RM), although the curative potential remained limited. Extensive radical mastectomy, which included internal mammary node dissection, was unsuccessful in improving survival [3].

Modified Radical Mastectomy (MRM), Total (Simple) Mastectomy, and more recently, Skin sparing mastectomy (SSM) and Nipple sparing mastectomy (NSM) have all been presented at various periods. Despite the fact that MRM is a less invasive treatment than RM, the patient will still need to have their breasts removed. The use of Breast Conserving Therapy (BCT) arose from the need to protect the breast without jeopardizing survival [4].

The standard of care in the management of early breast cancer is breast conservation treatment

(BCT), which is defined as breast conservation surgery (BCS) combined with whole breast irradiation. BCT aims for tumor-free resection margins as well as effective local control. A favourable cosmetic outcome is an essential secondary goal, as it is linked to patient happiness and enhanced quality of life [5].

Up to 40% of people getting BCT might have poor aesthetic effects. There are several elements that influence the final aesthetic result, such as host characteristics, adjuvant treatment used, and tumour location in the breast; nonetheless, the proportion of breast volume removed is the single most critical component. Because of the link between aesthetic result and patients' anxiety and depression scores, body image, sexuality, and self-esteem, how the breast appears after therapy is crucial [5].

For patients with bigger tumours, BCT has progressed over the last decade to guarantee both appropriate oncological excision and a favourable aesthetic result. One method is to increase the use of neoadjuvant treatment to facilitate tumour reduction and BCT. Oncoplastic BCS (OBCS) with or without neoadjuvant treatment allows for tumour removal with a broad margin of resection and rapid restoration of the defect (partial breast reconstruction), retaining a woman's natural breast shape and enhancing aesthetic outcomes [6].

Expected poor cosmetic outcome with conventional BCS; huge tumour in large breast; alternative to mastectomy; or avoidance of lymphedema, fibrosis, and persistent discomfort associated with irradiation in large-breasted women are all indications for OBCS [6].

Furthermore, because OBCS is increasingly being used as a substitute for mastectomy, with or without rapid reconstruction, it may have a lower complication rate than complete mastectomy and reconstruction, especially when radiation is used as an adjuvant [7].

When compared to complete breast reconstruction, the potential benefits of this technique include improved patient satisfaction, improved quality of life, and lower health-care expenditures [8].

Level 1 and 2 procedures are referred to as OBCS. Level 1 oncoplastic methods are utilized to prevent deformities for tumour excisions that are less than 20% of the breast volume and involve basic contouring without skin excision and may need nipple recentralizing. When significant volume

loss is expected, level 2 Oncoplastic procedures such as volume displacement and volume replacement should be considered. The majority of OBCS level 2 treatments include volume displacement techniques, which include tumour removal followed by contouring of the breast parenchyma and skin envelope reduction [6].

OBCS has gained widespread acceptance and is now used in clinical practise. There is a scarcity of accurate national data on current OBCS usage and practise. According to a recent report by the MD Anderson Cancer Center in the United States, the percentage of all breast cancer procedures performed at OBCS nearly quadrupled (from 4% to 15%) between 2007 and 2014 [5].

Aim of the work:

In this study we are going to compare between two conservative breast surgeries, which are level 1 oncoplasty and round block excision. The comparison will be in the cosmetic outcome, incidence of complications and the time of operation.

Patients and Methods

A prospective study of 76 patients underwent surgical intervention in treatment of early breast cancer classified into 2 groups: Group 1: Included 38 patients underwent round block technique. Group 2: Included 38 patients underwent level 1 oncoplasty technique in management of early stage breast cancer.

Patients were recruited from Ain Shams University Hospital and The Memorial Soad Kafafi University Hospital during the period from October 2020 till September 2021.

The inclusion criteria were as follows: Female Patients of age categories (18-60) having pathologically proven breast carcinoma, Mass away from areola by less than 4cm, Being a candidate for breast-conserving surgery and oncoplastic repair according to the recommendations of multidisciplinary team, Breast cup \geq B; Patients with early stage breast cancer (T1-2, N0-1, M0) and Giving consent to be operated on with this new technique.

The exclusion criteria were as follows: If they had any indication for mastectomy; diffused ductal carcinoma in situ; positive BRCA mutations; a recurrent tumor; skin infiltration; late stage breast cancer; any metastasis, Large tumor in small breast, History of radiation therapy and Preference for mastectomy or other traditional oncoplastic techniques.

Ethical consideration:

All the patients signed an informed consent with detailed information about the study. The protocol of this thesis have been approved by Medical Ethical Committee, Ain Shams University. It include an explanation of the study aim and design, and assurance that: All data will be confidential (for research purpose only),The name of the patient will be omitted from the results description,All participates in this study is free and voluntary, Photos will not be taken without patient's consent and Refusal to participate in this study will not affect the medical service received.

All patients will be announced by the results of the study.

All patient will be subjected to:

1- Full history taking: The key points in a patient's history are: Detailed personal, present and

past history, History of taking contraceptive pills, History of any menses abnormality, Time 1st menses, Marital status, age of 1st child, breast feeding and Family history with breast pathology.

- 2- General physical examination: For any signs of medical illness.
- 3- Local examination: By inspection and by palpation.
- 4- Investigation routine: Laboratory investigation (CBC, PT, PTT, Urea, Creat, ALT, AST) and Imaging by U/S for young age >35 year Mammography in old age above 35 year old.
- 5- Biopsy for histopathological assessment, confirmation and staging the cancer.

Round block technique:



Fig. (1): Preoperative drawing of inner and outer incision liner and site of the mass.



Fig. (2): The incision of the inner and outer circles.



Fig. (3): De-epithelialization between the outer and the inner incisions.



Fig. (4): Excision of the mass and clipping of operative bed for post-operative radiotherapy.

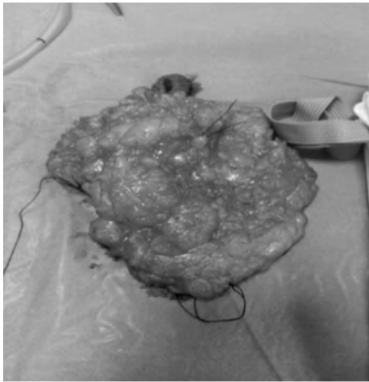


Fig. (5): The excised mass.



Fig. (6): Re-approximation of the superficial portion of the breast.



(A)



(B)

Fig. (7): A-3rd, B-10th day post operative wound.

Statistical analysis:

Data were collected, revised, coded and entered to the Statistical Package for Social Science (IBM SPSS) version 23. The quantitative data were presented as mean, standard deviations and ranges when parametric and median, inter-quartile range (IQR) when data found non-parametric. Also qualitative variables were presented as number and percentages.

The comparison between groups regarding qualitative data was done by using Chi-square test and/or Fisher exact test when the expected count in any cell found less than 5.

The comparison between two independent groups with quantitative data and parametric distribution was done by using Independent *t*-test while with non parametric distribution were done by using Mann-Whitney test.

The comparison between more than two groups regarding quantitative data and parametric distribution was done by using One Way ANOVA test.

The confidence interval was set to 95% and the margin of error accepted was set to 5%. So, the *p*-value was considered significant as the following: *p*-value >0.05: Non significant (NS), *p*-value <0.05: Significant (S) and *p*-value < 0.01: Highly significant (HS).

Results

The present study is prospective comparative study that is carried out on 78 patients with early stage breast cancer; 38 patients underwent round block technique and 38 patients underwent level one oncoplasty to compare between two conservative breast surgeries as regard the cosmetic outcome, incidence of complications and the time of operation.

Table (1): Descriptive data for the demographics and characteristics of the studied patients.

	Total no. = 78
<i>Age (years):</i>	
Mean ± SD	47.27±8.99
Range	25-63
<i>Weight (KG):</i>	
Mean ± SD	86.86± 10.71
Range	54-112
<i>Height (cm):</i>	
Mean ± SD	160.63± 12.26
Range	146-172
<i>BMI (kg/m²):</i>	
Mean ± SD	32.72±4.35
Range	23-43
<i>Hypertensive:</i>	
No	53 (67.9%)
Yes	25 (32.1 %)
<i>Diabetic:</i>	
No	63 (80.8%)
Yes	15 (19.2%)
<i>Breast feeding:</i>	
No	13 (16.7%)
Yes	65 (83.3%)
<i>Family history of breast cancer:</i>	
No	51 (65.4%)
Yes	27 (34.6%)
<i>Family history of cervical cancer:</i>	
No	70 (89.7%)
Yes	8 (10.3%)
<i>Contraceptive pills:</i>	
No	55 (70.5%)
Yes	23 (29.5%)
<i>Pregnancy at the period of surgery:</i>	
No	78 (100.0%)
Yes	0 (0.0%)

Table (1) show that mean age of the studied cases is 47.27 years ranging from 25 to 63 years, mean body mass index is 86.86 ranging from 23 to 43kg/m². Of the studied cases; 32.1% are hypertensive, 19.2% diabetic, 83.3% breast feeders, 34.6% & 10.3% have positive family history of breast & cervical cancer, respectively. Contraceptive pill users represents 29.5% and none of them were pregnant during period of surgery.

Table (2): Descriptive data for assessment of patients pre-operative.

	Total no. = 78
<i>Tumor size by sonomamograpgy:</i>	
Mean ± SD	2.56±0.80
Range	1-4.5
<i>Chemotherapy:</i>	
No	47 (60.3%)
Yes	31 (39.7%)
<i>Chemotherapy time:</i>	
Postoperative	19 (61.3%)
Pre and postoperative	12 (38.7%)
<i>Breast cup:</i>	
B	19 (24.4%)
C	42 (53.8%)
D	17 (21.8%)
<i>Stage of breast cancer:</i>	
Stage 1	25 (32.1%)
Stage 2	41 (52.6%)
Stage3 down staged to stage 2	12 (15.4%)
<i>Breast affected:</i>	
Right	24 (30.8%)
Left	53 (67.9%)
Bilateral	1 (1.3%)
<i>Distance from NAC (cm):</i>	
Median (IQR)	2.7 (1.9-3.5)
Range	0.5-4
<i>Site of the mass (in which quadrant):</i>	
Upper outer	54 (69.2%)
Upper inner	7 (9.0%)
Lower outer	17 (21.8%)

Table (2) radiological evaluation showed that the mean tumor size 2.56±0.80cm); (range: 1-4.5cm) 39.7% have chemotherapy, 61.3% have chemotherapy pre operative only m 53.8% breast cup is C, 52.6% are breast cancer stage 2, 67.9% have affection in left breast, 30.8% right breast affection and 1.3% bilateral. Median distance from NAC is 2.7cm ranging from 0.5 to 4cm. Mass distribution is as following 69.2% in upper outer quadrant, 21.8% lower outer and 9% upper inner quadrant.

Table (3): Post-operative complications in surgical bed.

Postoperative complications in surgical bed	Total no. = 78
<i>Hematoma:</i>	
No	78 (100.0%)
Yes	0 (0.0%)
<i>Seroma:</i>	
No	63 (80.8%)
Yes	15 (19.2%)
<i>Drain:</i>	
Without	50 (64.1%)
With	28 (35.9%)
<i>Delay wound healing:</i>	
No	72 (92.3%)
Yes	6 (7.7%)
<i>Skin infection/necrosis:</i>	
No	75 (96.2%)
Yes	3 (3.8%)

Table (3) shows that among studied cases; 19.2% develop seroma, 35.9% are with drain, 7.7% delayed wound healing, 3.8% skin infections and necrosis.

Table (4) shows that there is no significant difference of age, weight, height and body mass index between studied groups ($p>0.05$).

Table (5) shows statistically significant higher frequency of positive family history of breast

cancer among Level one than Round block groups (46.2% versus 23.1%, respectively).

Table (6) shows statistically significant higher chemotherapy indicated among group with round block surgery than group with level one group (51.32% versus 28.2%, respectively). Pre and post-operative chemotherapy was indicated among 72.7% of Level one group and among 20% of Round block group.

Table (4): Comparison of age and body mass index between level one and round block group.

	Type of surgery		Test value•	P-value	Sig.
	Level one group No.=39	Round block group No.=39			
Age (years):					
Mean ± SD	46.41±8.99	48.13±9.02	-0.842	0.402	NS
Range	25-62	31-63			
Weight (KG):					
Mean ± SD	86.62±9.69	87.10±11.77	-0.200	0.842	NS
Range	63-103	54-112			
Height (cm):					
Mean ± SD	162.31±4.53	158.95±16.68	1.214	0.229	NS
Range	155-172	64-170			
BMI:					
Mean ± SD	32.47±3.74	32.97±4.92	-0.506	0.615	NS
Range	23-40	24-43			

p -value >0.05: Non significant.
 p -value <0.05: Significant.

p -value <0.01: Highly significant.
•:Independent t -test.

Table (5): Comparison medical history of the studied patients between level one and round block group.

	Type of surgery		Test value*	P-value	Sig.
	Level one group No.=39	Round block group No.=39			
Hypertensive:					
No	25 (64.1%)	28 (71.8%)	0.530	0.467	NS
Yes	14 (35.9%)	11 (28.2%)			
Diabetic:					
No	33 (84.6%)	30 (76.9%)	0.743	0.389	NS
Yes	6 (15.4%)	9 (23.1%)			
Breast feeding:					
No	7 (17.9%)	6 (15.4%)	0.092	0.761	NS
Yes	32 (82.1%)	33 (84.6%)			
Family history of breast cancer:					
No	21 (53.8%)	30 (76.9%)	4.588	0.032	S
Yes	18 (46.2%)	9 (23.1%)			
Family history of cervical cancer:					
No	34 (87.2%)	36 (92.3%)	0.557	0.455	NS
Yes	5 (12.8%)	3 (7.7%)			
Contraceptive pills:					
No	30 (76.9%)	25 (64.1%)	1.542	0.214	NS
Yes	9 (23.1%)	14 (35.9%)			
Pregnancy at the period of surgery:					
No	39 (100.0%)	39 (100.0%)	-	-	-
Yes	0 (0.0%)	0 (0.0%)			

p -value >0.05: Non significant.
 p -value <0.05: Significant.

p -value <0.01: Highly significant.
*:Chi-squaretest.

Table (6): Comparison of radiological findings and chemotherapy characters of the studied patients between level one and round block group.

	Type of surgery		Test value	p-value	Sig.
	Level one group No.=39	Round block group No.=39			
<i>Tumor size by sonomamograppy:</i>					
Mean \pm SD	2.67 \pm 0.88	2.44 \pm 0.70	1.268*	0.209	NS
Range	1.3-4.5	1-4			
<i>Chemotherapy:</i>					
No	28 (71.8%)	19 (48.7%)	4.336*	0.037	S
Yes	11 (28.2%)	20 (51.3%)			
<i>Chemotherapy time:</i>					
Postoperative	3 (27.3%)	16 (80.0%)	8.316*	0.004	HS
Pre and postoperative	8 (72.7%)	4 (20.0%)			
<i>Breast cup:</i>					
B	11 (28.2%)	8 (20.5%)	0.913*	0.633	NS
C	19 (48.7%)	23 (59.0%)			
D	9 (23.1%)	8 (20.5%)			
<i>Stage of breast cancer:</i>					
Stage 1	12 (30.8%)	13 (33.3%)	1.593 *	0.451	NS
Stage 2	19 (48.7%)	22 (56.4%)			
Stage 3 down staged to stage 2	8 (20.5%)	4 (10.3%)			
<i>Breast affected:</i>					
Right	14 (35.9%)	10 (25.6%)	1.836*	0.399	NS
Left	25 (64.1 %)	28 (71.8%)			
Bilateral	0 (0.0%)	1 (2.6%)			
<i>Distance from NAC (cm):</i>					
Median (IQR)	2.5 (1.8-3.5)	2.9 (1.9-3.5)	-0.445 \neq	0.656	NS
Range	0.9-4	0.5-4			
<i>Site of the mass (in which quadrant):</i>					
Upper outer	29 (74.4%)	25 (64.1%)	1.910*	0.385	NS
Upper inner	4 (10.3%)	3 (7.7%)			
Lower outer	6 (15.4%)	11 (28.2%)			

p-value >0.05: Non significant.
p-value <0.05: Significant.

p-value <0.01: Highly significant.
*:Chi-square test.

• : Independent t-test
 \neq : MannWhitney U test.

Discussion

This comparative study, 78 patients presented with early breast cancer (T1–2, N0–1, M0) were divided into two groups first group treated by the standard round block technique and second group treated by circumareolar technique to evaluate the use of those techniques in surgical treatment of early breast cancer.

Patients' demographics such as age, BMI, and presence of medical co-morbidities were similar in both groups that underwent round block or circumareolar technique to diminish the effect of these factors on either operative parameters or cosmetic outcomes.

We also took into our consideration such as the tumor characteristics of the studied cases, distance from NAC, were nearly the same in both groups.

The mean age of the patients was 47.27 \pm 8.99 years, which was relatively older than the mean age of the patients who participated in the study carried out by Wakim et al. [9], which was 39.5 years, ranging between 20 and 54 years. Moreover, 70% of the cases fall between 40 and 59 years. This is consistent with the demographic data published by Zeeneldin et al. [10], which revealed that the peak of incidence rates for breast cancer in Egypt lies between 55 and 59 years.

Relatively younger age of the included patients increased the cosmetic and aesthetic demands. This made patient satisfaction a more challenging goal.

In our study, the mean BMI was $32.72 \pm 4.35 \text{ kg/m}^2$; (range: $23\text{-}43 \text{ kg/m}^2$); which is higher than those in the studies carried out by Kim et al. [11] ($23.2 \pm 2.5 \text{ kg/m}^2$) and the round block group in the study carried out by Giacalone et al. [12] and Dua et al. [13] ($23.7 \pm 4.4 \text{ kg/m}^2$). It should be noted that high BMI, together with the presence of other comorbidity and chronic illness, were found in most patients with early complications, in addition to the direct impact of obesity on the final aesthetic results of the procedure.

The mean operative time in our study was 107.08 ± 4.42 and 99.9 ± 5.02 in round block technique and circumareolar, respectively, which is close to what was published by Akram et al. [14], revealing the mean operation time in RBT was 96.5 and longer than that was published by Wakim et al. [9] revealing the mean time was 80mins.

Round block provide greater exposure diameter offered by skin de-epithelialization, enabling better access and visualization of the tumor, thus reducing the total operating time reported by Lim et al. [15].

Other operational parameters such as blood loss intraoperative, first day drain amount in cases with drains, hospital stay lengths, and complications rate were similar in both groups. Except in blood loss is more with round block technique.

The patients who had wound infection were diabetic. Statistically, diabetes mellitus has increased the risk of postoperative wound infection thrice. This is similar to what was published by Urban et al. [16] showing the complication of diabetes mellitus in oncoplastic surgery. The patients received oral antibiotics and instructed to have the wound daily dressed until the infection was eradicated.

The wounds of both techniques being obscured around the NAC at the transitional zone between NAC and skin played an integral role in improving cosmetic outcome, patient satisfaction, and acceptance in both early post-operative period and late follow-up period.

As reported by Rose et al. [17], the tumor size itself does not have any impact on the decision to perform an immediate partial reconstruction. Rather, the size of the tumor relative to the affected breast, that is, the size of the defect after tumor resection in relation to the size of the breast, de-

termines whether an immediate partial reconstruction is feasible. If so, the location of the tumor also has to be taken into consideration [18].

In this study, the mean tumor size ranged from 1.3-4.5cm, with a mean of $2.67 \pm 0.88 \text{ cm}$ with circumareolar technique and 1-4cm with mean $2.44 \pm 0.70 \text{ cm}$ with round block, in agreement with the size reported for Egyptian patients of 2.9cm [19].

In this study, the tumor distance from the nipple and areola complex ranged from 0.5-4cm, with a mean of $2.7 \pm 0.8 \text{ cm}$; this close to those of patients included in the study carried out by Chen et al. [20] (2-6cm apart from the center of the nipple) and also that reported by Giacalone et al. [12].

The incidence of positive axillary nodes was 35%, which is lower than that reported incidence in breast cancer in Egypt (63%) [21].

In this study, we encountered early wound complications in 24 patients (31.2%) patients. 15 patients (19.2%) developed postoperative seroma all were without drain: All of these were associated with excision of large breast tissue volume and large-sized breasts. Three patients (3.8%) developed postoperative skin infection. 6 patients (7.7%) developed delayed wound healing. We found that 5 (11%) patients had other comorbidities (diabetes mellitus), and the 1 patient had a large-sized breast with moderate ptosis with BMI of 36 kg/m^2 .

Conclusion:

The rate of long-term complications was comparable to or lower than that reported in many studies carried out using various conservative and other oncoplastic techniques, with better scar outcomes, and less fibrosis and fat necrosis, better symmetrization, especially in small-sized to medium-sized breasts without major ptosis, and who may not require contralateral breast surgery for symmetrization. Obviously, a large controlled trial with a longer follow-up duration is needed to confirm the long-term oncological safety of the procedure.

References

- 1- SIEGEL R.L., MILLER K.D. and JEMAL A.: Cancer statistics, 2019. *CA Cancer J. Clin.*, 69 (1): 7-34, 2019.
- 2- DESANTIS C.E., MA J., GAUDET M.M., et al.: Breast cancer statistics, 2019. *CA Cancer J. Clin.*, 69 (6): 438-51, 2019.
- 3- RAHMAN G.A.: Breast Conserving Therapy: A surgical Technique where Little can Mean More. *J. Surg. Tech. Case Rep.*, 3 (1): 1-4, 2011.

- 4- VERONESI U. and VALAGUSSA P.: Inefficacy of internal mammary nodes dissection in breast cancer surgery. *Cancer*, 47: 170-5, 1981.
- 5- BAKER E., KIM B., RATTAY T., WILLIAMS K., IVES C., REMOUNDOS D., HOLCOMBE C., GARDINER M.D., JAIN A., SUTTON R. and ACHUTHAN R.: The TeaM (Therapeutic Mammoplasty) study: Protocol for a prospective multi-centre cohort study to evaluate the practice and outcomes of therapeutic mammoplasty. *International journal of surgery protocols*, 1: 3-10, 2016.
- 6- CAMPBELL E.J. and ROMICS L.: Oncological safety and cosmetic outcomes in oncoplastic breast conservation surgery, a review of the best level of evidence literature. *Breast Cancer: Targets and Therapy*, 9: 521, 2017.
- 7- TONG W.M., BAUMANN D.P., VILLA M.T., et al.: Obese women experience fewer complications after oncoplastic breast repair following partial mastectomy than after immediate total breast reconstruction. *Plast. Reconstr. Surg.*, 137 (3): 777-791, 2016.
- 8- WINTERS Z.E., AFZAL M., BALTA V., et al.: Patient-reported outcomes and their predictors at 2- and 3-year follow-up after immediate latissimus dorsi breast reconstruction and adjuvant treatment. *Br. J. Surg.*, 103 (5): 524-536, 2016.
- 9- WAKIM H.R., EL-ZOGHBY A.S., AHMED F., AHMED D.H. and ABDEL-RAHMAN A.: A Comparative Study Assessing Surgical Outcome of Excision of Giant or Multiple Benign Breast Lesions Using Circumareolar Incision versus Round Block Technique. *The Medical Journal of Cairo University*, 89: 461-71, 2021.
- 10- ZEENELDIN A.A., RAMADAN M., GABER A.A. and TAHA F.M.: Clinico-pathological features of breast carcinoma in elderly Egyptian patients: A comparison with the non-elderly using population-based data. *J. Egypt Natl. Canc. Inst.*, 25: 5-11, 2013.
- 11- KIM M.K., KIM J., JUNG S.P., BAE S.Y., CHOI M.Y., LEE S.K., et al.: Round block technique without cerclage in breast-conserving surgery. *Ann. Surg. Oncol.*, 20: 3341-3347, 2013.
- 12- GIACALONE P.L., ROGER P., DUBON O., EL GAREH N., RIHAOUI S., TAOUREL P. and DAURÉS J.P.: Comparative study of the accuracy of breast resection in oncoplastic surgery and quadrantectomy in breast cancer. *Ann. Surg. Oncol.*, 14: 605-614, 2007.
- 13- DUA S.M. and SMITH S.: Therapeutic mammoplasty: A fusion of oncological and aesthetic breast surgery. *Adv. Oncol.*, 5: 1-4, 2010.
- 14- AKRAM S.M., EL KASED A.F., EL FOL H.A. and HAGAG M.G.: Evaluation of the round block technique in early breast cancer. *Egypt J. Surg.*, 37: 256-259, 2018.
- 15- LIM G.H., ALLEN J.C. and NG R.P.: Oncoplastic round block technique has comparable operative parameters as standard wide local excision: A matched case-control study. *Gland Surg.*, 6: 343-349, 2017.
- 16- URBAN C., RIETJENS M. and HURLEY J.: Oncoplastic and reconstructive surgery: Qualifications, limits, and mentoring. In: *Oncoplastic and Reconstructive Breast Surgery*. Milan: Springer, 441-445, 2013.
- 17- ROSE M., MANJER J., RINGBERG A. and SVENSSON H.: Surgical strategy, methods of reconstruction, surgical margins and postoperative complications in oncoplastic breast surgery. *Eur. J. Plast. Surg.*, 37: 205-214, 2014.
- 18- MOUSTAFA A. and FAKHR I.: Outcome of different oncoplastic surgical (OPs) techniques for centrally located breast cancer (CLBC). *J. Egypt Natl. Cancer Inst.*, 26: 203-209, 2014.
- 19- EL BOLKAINY M.N., NOUH M.A. and FARAHAT I.G.: *Pathology of cancer*. 4th ed. Cairo: Cairo Press, p. 310, 2013.
- 20- CHEN D.R.: An optimized technique for all quadrant oncoplasty. *Eur. Rev. Med. Pharmacol. Sci.*, 18: 1748-1754, 2014.
- 21- MOKHTAR N., GOUDA I. and ADEL I.: *Cancer pathology registry*. Cairo: NCI, 2007.

دراسة مقارنة بين جراحة الكتلة المستديرة والمستوى الأول من جراحات الثدي التجميلية في علاج أورام الثدي السرطانية المبكرة

الخلفية: يعتبر سرطان الثدي هو الأكثر شيوعاً لدى النساء وثاني أكثر أنواع السرطانات شيوعاً في العالم. حديثاً تم تشخيص ٢٦٨.٦٠٠ امرأة بإصابتها بمرض سرطان الثدي في الولايات المتحدة في عام ٢٠١٩. والهدف من هذه الدراسة هو علاج سرطان الثدي في مرحلة مبكرة عن طريق المقارنة بين من جراحات الثدي التحفظي وهما جراحة الكتلة المستديرة ومستوى الأول من جراحات الثدي التجميلية. وقد استعراض الحقائق التشريحية للثدي، والفيسيولوجيا المرضية لسرطان الثدي، والأعراض الإكلينيكية للمرضى، والعوامل التي قد تؤدي لسرطان الثدي، والطرق المختلفة للعلاج لسرطان الثدي.

الهدف: هو المقارنة بين عمليتين محافظتين للثدي، وهما عملية رأب الأورام من المستوى الأول وعملية استئصال الكتلة المستديرة. ستكون المقارنة في النتيجة الكونية ووقوع المضاعفات ووقت العملية والحالات والطرق في هذه الدراسة، تم اختيار ٧٨ مريض بسرطان الثدي في مرحلة مبكرة تم علاجهم بجراحة الثدي التحفظي بين ديسمبر ٢٠٢٠ إلى يناير ٢٠٢٢. تم تقسيم المرضى إلى مجموعتين كل مجموعة تتكون من ٣٩ مريضة في كل مجموعة. في المجموعة الأولى، تم عمل جراحة المستوى الأول من جراحات الثدي التجميلية وفي المجموعة الثانية، تم عمل جراحة الكتلة المستديرة. تمت مقارنة الجراحتين وفقاً للوقت الذي استغرقته كل جراحة والمظهر الجمالي لم ابعده العملية الجراحية وحدث مضاعفات ورضى المريضة عن طريق الاستبيان.

النتائج: في هذه الدراسة، واجهنا مضاعفات الجروح المبكرة في ٢٤ مريضاً (٣١.٢٪) مريضاً، ١٥ مريضاً (١٩.٢٪) أصيبوا بالورم المصلي بعد العملية الجراحية جميعهم كانوا بدون تصريف كل هذه كانت مرتبطة باستئصال حجم كبيرة من أنسجة الثدي وكبير الثديين. ثلاثة مرضى (٣.٨٪) أصيبوا بعدوى جلدية بعد العملية. أصيب ٦ مرضى (٧.٧٪) بتأخر في التئام الجروح. وجدنا أن ٥ (١١٪) مرضى يعانون من أمراض مصاحبة أخرى (داء السكري)، وكان لدى مريض واحد ثدي كبير الحجم مع تدلي معتدل للجفون بمؤشر كتلة جسم يبلغ ٣٦ كجم/م.٢.

الاستنتاج: وقد تمت منافسة نتائج هذه الدراسة ومقارنة تلك النتائج مع نتائج الباحثين الآخرين واتفقت أن الهدف الأساسي لاستئصال الورم باستخدام الجراحة التحفظية للثدي هو تحقيق هوامش خالية من الورم بعد عملية الاستئصال، كما أن الهدف الثانوي المهم في الجراحة التحفظية للثدي هو تحقيق نتيجة تجميلية مرضية، وهو عامل حاسم لرضا المرضى ونوعية الحياة. ومن خلال مقارنة النتائج تبين وجود تقارب بالنتائج ما بين جراحة الكتلة المستديرة وجراحة المستوى الأول من جراحات الثدي التجميلية. ولكن تأتي الأفضلية في صالح جراحات المستوى الأول من حيث الوقت المستغرق للعملية والشكل التجميلي ورضى المريضة عن العملية. ولكن مازلنا بحاجة إلى مزيد من الوقت لمتابعة الحالات بعد العملية لمعرفة إذا حدث ارتجاع للمرض أم لا.