Immediate Partial Breast Reconstruction with Latissmus Dorsi Flap

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Abstract:

background: Breast reconstruction can be performed as an immediate or delayed procedure. Immediate breast reconstruction (IBR) has been shown to improve body image, self-esteem, and social relationships without compromising local recurrence or survival rates. The latissimus dorsi flap (LDF) is a widely accepted technique for IBR, providing safe and aesthetically pleasing outcomes. **Aim of study** to assess the outcome of latissmus dorsi flap in immediate partial breast reconstruction regarding the complication, recurrent and patient satisfaction.

PATIENTS AND METHODS: The early breast cancer patients who underwent immediate breast reconstruction with LDF after wide local excision with safety margin and axillary lymph node dissection from June 2021 to June 2024,were included in this prospective study, . The data include patients characteristics, tumor pathological characteristic, type of surgery and reconstruction, surgical outcome, complications, recurrence and patient satisfaction.

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RESULTS: The total of ten of breast cancer patients, the mean of age was 33.8±(8.08) year, BMI was 24.24±(4.492) kg/m2, the highest percentage (60%) located in the upper lateral quadrant, (70%) of the patients taken chemotherapy pre- operative, mean size reduction post NACT 2.229 ±1.6266 cm. Regarding to the histological breast cancer type (90%)of patients had invasive ductal carcinoma, LDF types that used; (50%) myocutenouse LDF , (20%) LDMF and (30%) mini LDF , (20%) of patient developed donor site seroma post-operative, the only one patient has recurrent breast cancer because she refuse to take radiotherapy or chemotherapy post operative and the patients satisfaction from over all outcome is 100%(very satisfied)

CONCLUSION: immediate partial breast reconstruction using latissimus dorsi flap is safe and reliable technique with good oncological and cosmetic outcome.

Key words: breast cancer, wide local excision, latissmus dorsi flap, Breast reconstruction.

INTRODUCTION:

Breast cancer is the most common malignancy in women worldwide, and its incidence is still increasing[1].patient with early breast cancer is usually undergo surgery ,including partial mastectomy with radiotherapy [2].combined treatment is increasingly performed as the oncologic safety based on the 5 years survival rate is similar to that of mastectomy alone[3,4,5,6]. Not performing immediate partial breast reconstruction may lead to unsatisfactory aesthetic outcomes, such as breast distortion or retraction, noticeable volume changes, and secondary shape or position change, of the nipple-areolar complex [7] and have a negative impact on the patient's personal satisfaction and quality of life, often manifested through anxiety, shame, significant mood disturbances, decreased sexual interest, and depression[8,9].so immediate breast reconstruction has become an integral part of breast surgery, improving postoperative quality of life and mitigating deleterious effects. This procedure can help patients restore their body image and promotes physical and psychological well-being, in addition to being considered oncologically safe[10,11,12]. The advantages of IBR include one operation, one hospital stay and one sick leave. IBR is therefore cost saving compared with delayed reconstruction [13].

The use of autologous tissue is considered gold standard for patients undergoing breast reconstruction , autogenous tissue is usually the best choice for breast reconstruction because there are no implant-related complications and the cosmetic result is usually better due to better limitation of natural ptosis with soft, warm and pendulous tissue. In addition, this type of reconstruction is not endangered by postoperative radiation [14].among these autologous tissue latissmus dorsi flap is reliable flap can provide tissue to correct partial mastectomy or lumpectomy defects and microsurgical expertise is not needed [15]. It gives a good breast for either slim women with small breasts or overweight women, who have excess tissue in their upper back; the

transposition of the LD muscle does not interfere with the movements and strength of the shoulder in ordinary women. The scar of the donor site in the back can be placed horizontally under the bra or obliquely mimicking the line of a swimsuit giving a good cosmetic result [16]. IBR by LDF appeared to have excellent tolerance to subsequent radiotherapy, the latter having no impact on patient aesthetic satisfaction [17].

Though breast reconstruction using LDF has been reported in several studies, No information has been available regarding clinical outcomes following immediate breast reconstruction (IBR) in the Yemeni population .moreover, there are no detailed investigations that specifically address the possible risks, complications, recurrent and patient satisfaction.so this study aim to assess outcome of Immediate Partial Breast Reconstruction with Latissmus Dorsi Flap .

PATIENT AND METHODS

Study Design

This study was a prospective study included 10 female patients with early breast cancer (T1-T3) who underwent immediate partial breast reconstruction with latissimus dorsi flap (LDF) after partial mastectomy (wide local excision with safety margin) and axillary lymph node dissection. Data was collected from June 2021 to June 2024. in Al-Maodah and Ibn Sina`a hospitals in Sana`a city.

Data included patient characteristics (age, BMI), tumor pathological characteristics (tumor size, location, type, hormonal status, weight of excised tumor, size of breast defect), type of surgery and reconstruction, surgical outcome, complications, recurrent and patient satisfaction.

All patients underwent full history and clinical examination, Breast ultrasound, mammography and CT-scan to assess of cancer and distant

metastasis. True cut biopsy for histopathological diagnosis. Patients with a tumor size ≥ 4 cm received neoadjuvant chemotherapy to reduce tumor size. Patients were informed about potential complications including flap necrosis, hematoma, infection, seroma, at donor site and other donor site morbidity. Pre operative and post-operative photographs was taken after patient permission and written consent was obtain from patients prior to operation.

Patient satisfaction was evaluated using a pre-discharge satisfaction questionnaire (modified from the Breast-Q questionnaire) because most of patients live outside Sana`a consisting of seven detailed questions across five items.in which The questionnaire responses were categorized into four scores: very satisfied, somewhat satisfied, somewhat dissatisfied, and very dissatisfied.

Patients selection:

Patients Inclusion Criteria: Age ≤60 yrs , patient who had good cardiopulmonary functions،Clinical staging I –IIIa breast cancer, patient with no any contraindication to surgery and Patient who request to preserve her breast. While the following patients are excluded from the study: Patients with history of previous thoracotomy at donor site, Age ≥60 years old, Clinical stage IIIB and above And Patient who didn`t accept breast reconstruction.

Preoperative Marking:

This marking procedure is performed preoperatively with the patient standing comfortably with the arms at the sides. The location of the breast cancer was marked and about at least 2 cm around the tumor margin was marked .The LDF marking Initiated by the midline is marked along with the palpable tip of the scapula. A line is drawn from the posterior border of the axilla curving medially across the tip of the scapula. This represents the upper border of the latissimus muscle. The estimated inferior margin of the trapezius is drawn as it covers the

superomedial corner of the latissimus muscle. With the arm raised up over the head, the anterior border of the muscle is marked by identifying the edge of the muscle in the axilla and drawing this landmark inferiorly toward the iliac crest. The origin of the muscle from the thoracolumbar fascia is drawn estimating this to be 2–3 cm off the midline and this muscle origin is followed as it curves inferolaterally along the iliac crest. In this fashion, the surface area of the latissimus muscle is outlined in such a way that the skin island can now be centered. The transverse elliptical shaped skin flap of the LD flap was designed on the inner area of the marked bra line to hide the scar while the area covered by the arm was marked on the ipsilateral lateral side of the body for LD flap in the attention position figure (1).

Figure (1) Pre-operative marking; A-anterior view with marking of breast tumor.B-lateral view with arm up .C-posterior view reveal LDF marking.

Operative technique:

The procedure was carried out first in supine position ,under general anesthesia where

wide local excision of tumor utilized the oncoplastic principle (at least 2 cm safety margin around tumor)was performed. Then axillary lymph node dissection was performed .the anterior border of LD muscle is identified and toracodorsal bundle was identified. Once the neurovascular bundle to the LD muscle is identified, it is now time to place the patient in the lateral decubitus position for a unilateral reconstruction. Once the patient is repositioned, an

elliptical incision is made on the previously marked surface of the skin paddle overlying the LD muscle. The skin island is then incised in a circumferential pattern down to the fascia of the LD muscle.The LD flap is mobilized incising the muscle along its margins, which aresuperior and lateral to the teres major muscle and superior and medial to the trapezius muscle. Anterolaterally, the LD muscle is adjacent to the serratus anterior muscle and inferior the muscle tapers and continuing the dissection posteriorly, using fingers to bluntly dissect the muscle off the underlying rib cage. When the posterior attachments of the flap are freed, its peripheral attachments are severed by sharp dissection at the level of the thoracolumbar fascia, using the unipolar or bipolar cautery to help limit thermal injury. Along the superior aspect of the dissection, care should be taken to identify and preserve the thoracodorsal pedicle, which should have been previously exposed during the axillary dissection. Preservation of the thoracodorsal pedicle is critical, as it provides the blood supply to the LD flap. Once the superficial dissection is completed and the LD muscle is delineated, dissection of the back must be performed in the deep plane . At this point, the skin paddle is checked for capillary refill. It is helpful to suture the dermis of the skin paddle to the LD muscle fascia, preventing any potential shearing of the skin; with blunt dissection, a tunnel is created from the mastectomy defect into the axilla, and the tunnel enlarged sufficiently to allow the pedicle of the LD flap to be rotated into the mastectomy defect. The donor site is typically closed after the LDMF is harvested and prior to transposition. The back wound is closed primarily over suction drains brought out the lateral caudal portion of the wound. The wound is generally closed in two layers' Scarpa's fascia is closed with interrupted 2–0 absorbable sutures along with the dermis in a separate layer, followed by a running 3–0 subcuticular Monocryl stitch placed superficially. A sterile occlusive dressing is applied. Once the back wound is closed, the patient is again rotated to the supine position to complete the reconstruction on the anterior chest wall. The sterile plaster overlying the

mastectomy wound is removed, the patient is rederaped. A subcutaneous tunnel is created from the back through the upper portion of the axilla and into the anterior chest wall. This subcutaneous tunnel wide enough to permit the passage of the LDMF but not too narrow to constrict the pedicle or muscle flap. Once the LDMF is transposed through the axillary tunnel and into the partial mastectomy defect, it is now appropriate to inset the flap for reconstructive breast reconstruction.

The contralateral breast is used as a template for what would be considered appropriate volume and shape. The flap is then inset, using absorbable stitches to tack the muscle into the defect, and the skin paddle is then 'tailortacked' into the partial mastectomy defect after insertion of the drain at the bed of defect. Next, the perfusion to the skin paddle is assessed. If there is any evidence of venous congestion or increased capillary refill, it is important to make sure that the axillary tunnel is wide enough to permit the transposition of the LDMF or the vascular pedicle is not under any tension or twisted. The patient is then placed in the sitting position almost to 90° to recreate normal anatomical landmarks. Once this is done, the symmetry and the volume of the reconstructed breast can be compared with that of the contralateral native breast. Final adjustments are then made between the skin paddle and the partial mastectomy defect. For defects that do not require skin reconstruction, the skin paddle can be deepithelialized and then the dermis and the muscle can be buried into the defect figure (2).

All Patients admitted to word with maintenance intravenous fluid and allow for start oral diet four hours post-operative, the Foleys catheter was removed at end of operation to encourage early mobilization ,and patient take prophylactic low molecular weight heparin, antibiotic were given to patient(ceftriaxone 1 gm. iv BD+ flagyl 500mg/100ml iv infusion TDS),perflgan 1 gm iv infusion TDS was given as post-operative pain management, breast mass and axillary lymph

node were send for histopathlogical study at zero day of operation. Latissmus dorsi Flap was assessed at four hours post-operative for temperature, colure and bleeding character. Patients admitted for 24 hours post-operative and discharge with suction drains and intravenous antibiotics . The drain at breast defect was removed at second day post-operative ,while the back drain was removed when amount of discharge less than 30 ml for 24 hours. patients satisfaction was assess with modified Q-questionnaire pre-discharge.

Figure (2): Operative techniques;A-WLE for Breast tumor.B-breast defect . C-excised breast tumor.D-LDF elevation.E-complete suture of LDF to breast defect.

Follow up:

All patient was followed up to one year for the possible complications, recurrence and for cosmetic outcome. All patient was send to oncologist center to continue their management (chemotherapy and radiotherapy) according to MDT decision.

Statistical Analysis

Statistical analysis will be performed using appropriate software. SPSS (statistical package of social sciences) version 27 was used for data analysis .number and percent were used to represent the qualitating data ,while the mean ± SD was used to represent the qualitating data .P-value was estimated by Chi-square test for correlations between

BMI,neoadjuvant chemotherapy and complications and considered to be statistically significant when less then 0.05.

The Results

Patients characteristics are list in table (1) the mean of age for patients was (33.8± 8.08) years and mean of body mass index (24.24± 4.492) kg/m2 range from 18.7 to 31.2.

Table (1) Patients Characteristics

Variable	Category	F	Mean & St.Deviation	%	Minimum value	Maximum value
Age (years)			33.8±8.08		15	45
BMI (kg/m2)			24.24±4.492		18.7	31.2
location of Breast Mass	Upper Medial Quadrant	2		20%		
	Upper lateral quadrant	6		60%		
	Lower medial quadrant	1		10%		
	Lower lateral quadrant	1		10%		
Neo adjuvant Chemotherapy	Yes No	7 3		70% 30%		
Size of tumor pre- chemotherapy (cm)		7	5.986±2.7486		4.0	10.2
Size of tumor pre- operative (cm)		7	2.229±1.6266		0	4.0
Size of tumor post-chemotherapy (cm)		3	7.268±5.8321		3.8	14.0
Size of tumor pre- operative (cm)		10	4.675±3.8216		2.2	14.0

Six (60%) of patients had location for their tumor at upper outer quadrant , while two (20%)located at upper inner quadrant. Seven patients (70%) received Neoadjuvant chemotherapy ,in whom the breast size were small and the tumor size more than 4 cm in maximum diameter , in all seven patients the tumor reduce in size post neo adjuvant chemotherapy with mean size 2.229±1.6266 cm table (1).

Table (2)Tumor characteristics

Variable	Category	F	%	M±SD	Mini.Value	Max. Value
Histological tumor type	IDC	9	90%			
	Malignant phyllodus tumour	1	10%			
Nearest safety margin(cm)		10		0.8300±0.27909	0.3	0.5
Axillary lymph node involvement	Free	7	70%			
	Involve	3	30%			
Estrogen receptor status	+ve	6	60%			
	- ve	4	40%			
Progesterone Receptor	+ve	6	60%			
	- ve	4	40%			
HER2/NEU gene	+ve	4	40%			
	- ve	6	60%			
Hormonal assessment	Non triple negative	6	60%			
	Triple negative	4	40%			
Weight of excised tissue (gram)				157.80± 90.870	60	320
Size of breast defect (cm)				9.80±3.011	6	14

Three patients (30%) have axillary lymph node metastasis (less than four in number),the tumor was excised with free margin in all patients ,where the mean of nearest free margin was 0.8300±0.27909 cm. Six (60%) and four (40%) patients have triple positive and triple negative respectively. The mean of the weight of excised breast tissue with tumor was 157.80±90.870 gm, ranging from 60 to 320 gram .The mean size of breast defect left after the excision was 9.80±3.011 cm table(2)

Regarding tumor pathological type Nine (90%) of patients had invasive ductal carcinoma while only one (10%) patient had malignant phyllodous tumor. In seven patients (70%)the breast defect was reconstructed with the stander latissmus dorsi myocutenouse flap , in the five patients with skin paddle and

two of them without skin, while in three (30%)patients reconstructed with mini LDF.

The mean of duration of back drain removal was 9.20±3.011 days, ranging from 6 days to 14 days. Seroma was developed in two (20%) patients as post-operative complication , where it was aspirated in 2-3 sessions at outpatient clinic . No other significant post-operative complications table (3).

Table (3): Complications

variable	F/N	Percentage %
SEROMA	2	20%
Hematoma/bleeding	0	0
Wound Infection	0	0
Wound Dehiscence	0	0
Flap Necrosis	0	0
Loss of Shoulder Mobility	0	0
Shoulder Weakness	0	0
Winged Scapula	0	0

Statistical analysis was conducted using chi- square test to assess correlation between body mass index, Neoadjuvant chemotherapy and complication, there was no significantly correlated between body mass index, Neoadjuvant chemotherapy and complication with sig > (0.05) table (4).

Table(4) Correlation between BMI, Neoadjuvant Chemotherapy & Complication

CORRELATIONS	**Complication**	
	X2	Sig
Category Body Mass Index	4.444	.108
Neoadjuvant Chemotherapy	.023	.880

The mean of follow up duration for recurrence is 21.5 months ,only one patient had recurrent breast cancer (IDC) 2 years post operative because she refuse to complete adjuvant chemotherapy and radiotherapy ,so modified radical mastectomy was done.

The Satisfaction score for cosmetic outcomes in patients with breast cancer who underwent the immediate partial breast reconstruction with latissimus dorsi flap, the modified Q- questionnaire results shown in table (4-5) , in which the Very Satisfied take (4), Some satisfied take (3), dissatisfied take (2) and Very dissatisfied take (1) .

Table (5)Satisfaction score for cosmetic outcomes

No.	Questionnaire	Very Satisfied (4)- Some satisfied (3) dissatisfied (2) Very dissatisfied (1)				SMA	Verbally
		very satisfied	some satisfied	dissatisfied	very dissatisfied		
	Breast symmetry					3.50	very satisfied
1-	How would you rate the symmetry of your reconstructed breast compared with contralateral side?	5(50.0%)	5(%50.0)	0(0.0%)	0(0.0%)		
	Breast shape					3.900	very satisfied
2-	How would you rate the shape of your unclothed reconstructed breast?	8(80%)	2(20.0%)	0(0.0%)	0(0.0%)		
3-	How natural is the shape of your reconstructed breast with clothing?	10(100%)	0(0.0%)	0(0.0%)	0(0.O%0		
	Postoperative pain					3.10	Some satisfied
4-	How tolerable was the postoperative pain?	3(30.0%)	5(50%)	0(0.0%)	2(20.0%)		
	Donor site scar					3.20	some satisfied
5-	Considering its length and shape, how satisfied are you with your scar?	6(60.0%)	2(20.0%)	0(0.0%)	2(20.0%)		
	Overall outcome					4.000	very satisfied
6- 7-	How satisfied are you with the overall outcome	10(%100)	0(0.0%)	0(0.0%)	0(0.0%)		

No.	Questionnaire	Very Satisfied (4)- Some satisfied (3) dissatisfied (2) Very dissatisfied (1)				SMA	Verbally
		very satisfied	some satisfied	dissatisfied	very dissatisfied		
	of the operation?						
	If you could go back before surgery, would you still decide to reconstruct with this method?	10(%100)	0(0.0%)	0(0.0%)	0(0.0%)		
	Patient 'Mean satisfaction					3.657	very satisfied

Patient satisfaction was as follows: breast symmetry very satisfied by percentage 86%, Breast shape very satisfied by percentage 98%, postoperative pain some satisfied 78%, for donor site scars were some satisfied 80%, Overall outcome very satisfied 100%.

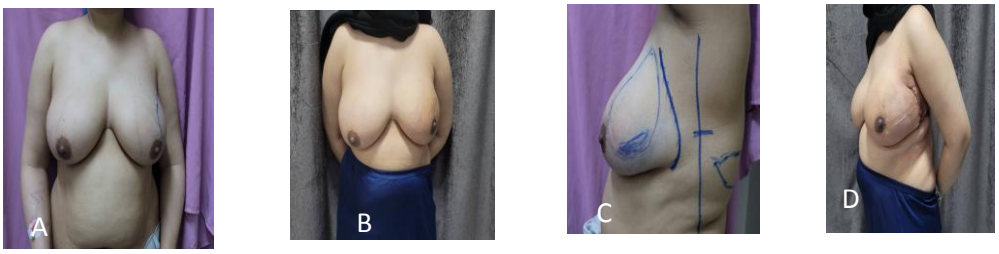
Discussions

Breast reconstruction can be performed as an immediate or delayed procedure, immediate reconstruction result in improvement in body image, self-respect, and social relations. immediate reconstruction also reportedly reduce somatic complaints and provides psychological. Social, and spiritual improvement [18]. To date there is no evidence that immediate reconstruction jeopardises either the local recurrence or survival rates in breast cancer[18,19]. Various oncoplastic breast surgery techniques have been reported after partial mastectomy and breast-conserving surgery. The use of latissimus dorsi muscle flap (LDMF) may represent an acceptable and valid option for IBR[20]. This technique LDMF in partial breast reconstruction is safe and associated with low complication and high patient satisfaction rate ,so The flap is safe and effective for reconstruction in setting of breast conserving therapy ,providing aesthetically pleasing result with high patient satisfaction[18]. IBR by LDF appeared to have excellent tolerance to subsequent radiotherapy, the latter having no impact on patient aesthetic satisfaction [21].

Figure (3);adult age female patient with invasive ductal carcinoma in right breast after taken neoadjuvant chemotherapy,A- pre operative picture ,B- one day post opeative with immediate partial breast reconstrucation by myocutenous latissmus dorsi flap.

In this study 70% of our cases received NACT which reduced the tumor size from mean pre chemotherapy size 2.7486± 5.986 cm to mean post chemotherapy size 2.229± 1.6266 cm ,so decrease amount of breast tissue resecated. This simirally with Sonja M urchison et al study that revealed the New adjuvant chemotherapy is effective among majority of patient with breast cancer and is increasingly used preoperative to achieve disease downstaging,reduce distance dissemination[22]. In study done by A Ofri et al 2023 for neoadjuvant chemotherapy in non metaststic breast cancer the surgeon`s perspective reveal that neoadjuvant chemotherapy in carefully selected patients can facilitate increase rate of breast conservation therapy ,and when successful ,offers improved cosmosis due to less extensive resecation of tissue,so become integral element in the provision of breast cancer patients.[23]

Our study show that latissmus dorsi was applicable to different quadrants of breast as it reconstruct the upper outer quadrant , inner quadrant , lower medial quadrant and lower lateral quadrant defect in six (60 %) , two (20 %),one (10 %) and one (10 %) patients respectively. This finding was similar to study puplished by Mohmed Abdelbaky and et al , which reported that The latissmus dorsi flap procedure is applicable to different quadrent of the breast [23].



Figure(4):pre-and post –operative views for patient with left breast invasive ductal carcinoma who received immediate partial breast reconstruction with latissmus dorsi muscle flap. Anterior view:A- pre-operative and B- post-operative ,lateral view C – pre-operative and D- post-operative.

In five (50 %) patients where the defect was large in size and the tumor was near to skin , The whole LDF with skin paddle was used to fill the defect and maintain safety margin respectively , while in two (20 %) patients where the tumor was deep and away from the skin , so only the latissmus dorsi muscle flap without skin paddle was used , In three (30%) patients mini – LDF was used for reconstruction in whom breast size is small

One of the characteristics of oncoplastic surgical intervention is obtained free surgical margins to probability to decrease the number of subsequent surgery [24].There is an international agreement that `no tumor on ink` is an acceptable resection margin in invasive breast cancer[25,26] though a recent meta-analysis suggested that a 2 mm margin may be more adequate[27]. Andre and colleagues report no advantage for resecation margins wider than 2 mm [28].in our study we assessed the surgical margins blindly by excising more tissue around tumor due to lack of frozen section analysis in our hospital .our result revealed that the mean of nearest free margin 0.83 cm.

Berthet et al report in their study that immediate breast reconstruction by LDF appeared to be excellent tolerance to subsequent radiotherapy , the latter having no impact on patient aesthetic satisfaction [17] .

Figure (5): patient with right breast invasive ductal carcinoma post taken neoadjuvant chemotherapy,lateral views ;A- pre-operative,B- frist day post immediate partial breast reconstruction with latissmus dorsi flap and C- one year post operative.

Donor site seroma was the post-operative complication form 20% in this study ,despite of the use of closed suction drain for all patients and quiliting sutures being used in some cases. As similar to Daltrey et al in.randomized clinical trial of the effect of quiliting latissmus dorsi flap donor site on seroma formation reveal use of quiliting suture decrease donor site seroma[29] . in this study the donor site seroma were managed with simple needle aspiration in out patient clinic .Most of latissmus dorsi flap series report donor site seroma as the most common complication with rate ranging from 4-80%[30].

Daltry I et al in their study suggested that asymptomatic seroma should not be considered a complication but rather an inevitable side effect of LDF surgery [29]. The current practice of electrocautery dissection may further contribute to development of symptomatic or recurrent seromas, and it is not uncommon to leave drains for several days or even weeks at the donor site. Tomita et al. study that analyzed potential risk factors for seroma development in 174 patients with LDF surgery they found Seroma occured in 28% of patients receiving mastectomy and LDF, while the incidence was much lower (11%) in patients undergoing a breast conserving surgery with LDF-based volume replacement.[31] . Different approaches to prevent seroma formation have been explored in previous studies. Lee et al. performed a meta-analysis of 14 studies, including three randomized controlled trials, on quilting sutures and

fibrin sealants . Both interventions contributed in varying degrees to reducing seroma-related morbidity following LDF transfer, and their combination might have a synergistic effect. However, more than half of the included studies had a retrospective and non-randomized design and the definition of seroma varied. Further, operative time required for either intervention, additional costs, and the potential for allergic reaction to sealants need to be considered. Therefore, neither intervention is accepted as standard of care and the decision to use them depends on surgeon's preference. In the present study, the prevalence of seroma was 20 %. While drain placement is commonly used in LDF surgery, recommendations regarding the time point of drain removal vary. Some authors recommend removing the last drain when drainage volume decreased under a specific amount (e.g., 20, 30 or 40 ml) per 24 h, while others prefer to leave the drains for a defined time, irrespective of the output . In the present study drains were removed once the drainage volume decreased to < 30 ml in 24 hr.

Additional donor site morbidity includes loss of shoulder mobility, shoulder weakness, and winged scapula. our study show that there are no limitation for shoulder movment in donor site and no winged scapula ,which similar to Steffenssen MCW et al with a meta-analysis of 26 studies, revealed that there is a tendency in the LDF transfer may affect shoulder function, but this limitation seems to be minimal, and few patients experience a major impact on shoulder function [32]. also Smith found that LDF reconstruction does cause impaired shoulder range of motion, strength, and functioning generally resolves by 12 months postoperatively; this finding was supported by additional studies that showed similar improvement in shoulder function. In this study no significant correlation between body mass index and complication ,which similarly Joseph M Escandon report in their study that the rate of donor site and recipient site complications was similar between obese and non obese patient group [33] .In our study the all over outcome of patient satisfaction from

immediate partial breast reconstruction is very satisfied in 100%. Based on the experience of many centers, breast reconstruction using the latissimus dorsi has favorable outcome with significant patient satisfaction. In a review of 170 patients who underwent latissimus dorsi reconstruction, Moore revealed that more than 90% of patients were satisfied with the results and would recommend the procedure to other patients. In the same review, physician evaluators concurred that 80% of patients had satisfaction from the size and shape compared to the opposite breast and 5% were found to have firm breasts [34] .

Limitation of our study was a single center study with small sample size and this can be explained by that:

-Most of surgeons in Yemen still prefer to do MRM regardless the stage of breast cancer and they didn`t discuss with the patients the options of breast cancer treatment and reconstruction.

-Lack of multidisciplinary team work to deal with breast cancer management.

-Most of the patient present in a late stage of the breast cancer.

So further studies including larger number for long term follow up are needed to verify the out come of this study.

Conclusions

Immediate partial breast reconstruction using LDF is a safe and reliable technique with good oncological and cosmetic outcome and should be considered where appropriate to help avoid the need for mastectomy. LD-mini flap can achieve an adequate cosmetic outcome when 20-30% of the breast has to be resected leaving a large partial resection defect in small to moderate sized breasts with early stages (I-II) breast cancer . This technique has a low incidence of complications with high patient satisfaction.

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إعاده بناء الثدي الجزئي الفوري بإستخدام السديله الظهريه العريضه

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الملخص:

مقدمة: يمكن إجراء إعادة بناء الثدي كإجراء فوري أو مؤجل. لقد ثبت أن إعادة بناء الثدي الفوري تعمل على تحسين صورة الجسم واحترام الذات والعلاقات الاجتماعية دون المساس بالتكرار المحلي أو معدلات البقاء على قيد الحياة. تعتبر السديلة الظهرية العريضة تقنية مقبولة على نطاق واسع لإعادة بناء الثدي الفوري مما يوفر نتائج آمنة ومرضيه من الناحية الجمالية.

الهدف: تقييم نتائج السديلة الظهرية العريضة في إعادة بناء الثدي الجزئي الفوري فيما يتعلق بالمضاعفات والتكرار ورضا المريض.

الطريقة: تم تضمين المرضى الذين خضعوا لإعادة بناء الثدي الفوري باستخدام السديلة الظهرية العريضة بعد استئصال موضعي واسع مع هامش أمان واستئصال العقدة الليمفاوية الإبطية من يونيو 2021 إلى يونيو 2024، في هذه الدراسة الاستباقية. تتضمن البيانات التاليه :خصائص المرضى، الخصائص المرضية للورم، نوع الجراحة وإعادة البناء، النتائج الجراحية، المضاعفات ورضا المرضى. تم استخدام الحزمة الإحصائية للعلوم الاجتماعية (SPSS) الإصدار 27 لتحليل البيانات.

النتائج: شملت الدراسه مجموع عشرة من مرضى سرطان الثدي حيث كان الانحراف في العمر 33.8 ± (8.08) سنة، وكان مؤشر كتلة الجسم 24.24 ± (4.492) كجم / م 2، وهي أعلى نسبة (60٪) تقع في الربع الجانبي العلوي للثدي، (70٪) من المرضى الذين تلقوا العلاج الكيميائي قبل الجراحة، بحيث كلن تخفيض الحجم 2.229 ± 1.6266 سم. فيما يتعلق بنوع سرطان الثدي النسيجي (90٪) من المرضى لديهم سرطان الأقنية الغازية، وأنواع السديلة الظهرية العريضة المستخدمة؛حيث ان (50٪) من الحالات تم استخدام السديلة الظهرية العريضة كامله مع الجلد، (20٪) من الحالات

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تم استخدام السديلة الظهرية العريضة كامله بدون الجلد، (30٪) من الحالات تم استخدام جزء من السديلة الظهرية العريضة مع الجلد.(20٪) من الحالات أصيبت بورم مصلي في موقع اخذ السديله بعد العملية الجراحية، المريضة الوحيدة التي عانت من سرطان الثدي المتكرر لأنها رفض تناول العلاج الإشعاعي أو العلاج الكيميائي بعد العملية الجراحية ،اما عن رضا المرضى عن النتائج الإجمالية هو 100% (راضي جدًا).

الخلاصة: إعادة بناء الثدي الجزئي الفوري باستخدام السديلة الظهرية العريضة هي تقنية آمنة وموثوقة ولها نتائج علاجية وتجميلية جيدة.

الكلمات المفتاحيه: سرطان الثدي،استصال محلي واسع،السديله الظهريه،اعاده بناء الثدي.