Lazy lateral technique: an innovative approach for upper outer quadrant breast cancer near the anterior axillary fold

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Context
Surgical treatment of breast cancer was challenged over years. Breast conservation is as oncologically safe as mastectomy and gives better cosmetic and psychological outcomes.

Aim
The aim of our study was to evaluate the oncological and esthetic outcomes of the lazy lateral technique as a new approach for tumor located at the upper outer quadrant near anterior axillary fold.

Patients and methods
Between October 2012 and September 2014, 18 patients with early breast cancer at the upper outer quadrant and near the anterior axillary fold were surgically treated with the lazy lateral technique.

Results
The age of our patients ranged from 36 to 58 years (median: 47 years). Most of the patients in this study were diagnosed as having infiltrating ductal carcinoma (14 patients, 77.7%). The size of the tumor ranged from 0.9 to 3.8 cm. No involved margin on frozen section. Seroma was the most common postoperative complication and developed in two (11.1%) patients. The cosmetic outcome was excellent in 12 (66.6%) patients, good in five (27.7%) patients, and satisfactory in one (5.5%) patient. No local recurrence or systemic metastasis was noticed in our patients during a median follow-up period of 38 months (range: 27–49 months).

Conclusion
The lazy lateral technique is a novel approach for surgical treatment of upper outer quadrant breast cancer near the anterior axillary fold. It is an oncologically safe procedure and promotes satisfactory esthetic outcomes.

Keywords:
breast cancer, conservative surgery, oncoplastic techniques

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Introduction

The breast is a significant symbol of femininity for women; total or partial excision of the breast alters the patient's body image and causes many psychological disorders. Surgical treatment of breast cancer was challenged over years from radical mastectomy of Halsted passing through modified radical mastectomy until the era of breast conservation and lastly oncoplastic surgery [1–6]. Oncoplastic surgery is the most recent expression of breast conserving surgery; it aims to conserve the breast parenchyma to give an excellent cosmetic outcome for the patient, respecting the oncological principles of radicality [7–9]. Breast conservation is as oncologically safe as mastectomy and gives better cosmetic and psychological outcomes [10,11]. About 60% of breast cancer occurs at the upper outer quadrant [12–14]; hence, we try to find a new approach to allow safe resection of the tumor and give better cosmetic outcomes.

Aim

The aim of our study was to evaluate the oncological and esthetic outcomes of the lazy lateral technique as a new approach for tumors located at the upper outer quadrant near the anterior axillary fold.

Patients and methods

Between October 2012 and September 2014, 18 patients with early breast cancer in the upper outer quadrant and near the anterior axillary fold were included in the study. The study was conducted at the surgical oncology unit, Zagazig University

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Hospital, and was approved by the local ethical committee of our faculty.

Preoperative

All patients were diagnosed with early breast cancer by careful clinical evaluation, investigation (breast ultrasound and mammography), and proved by true cut biopsy. Chest radiography, pelviabdominal ultrasound, and bone scan were performed for staging of the disease.

Inclusion criteria

All female patients with early breast cancer at the upper outer quadrant and near the anterior axillary fold were included in the study.

Exclusion criteria

(1) Multicentric and multifocal tumor.
(2) Inflammatory breast cancer.
(3) Breast–tumor size ratio that does not allow oncoplastic surgery.
(4) Patient preference.

The technique was discussed with all patients and informed consent was obtained. Preoperative drawing of lazy lateral incision extends from the anterior axillary fold and envelops the tumor down along the circumference of the breast to the lateral end of the inframammary fold (Fig. 1).

Intraoperative

The tumor was resected with safety margin using the designed incision; frozen section of the specimen was prepared in order to assess the safety margin (Fig. 2a and b). Axillary clearance with removal of level I and level II lymph nodes was carried out through the same incision (Fig. 2c). Closure with suction drain was performed (Fig. 3).

Postoperative

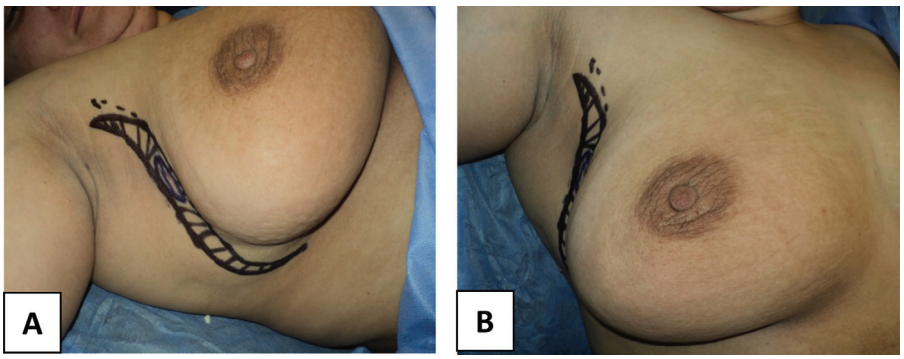
Suction drains were removed when the drain output was decreased to 20–30 ml per 24 h.

Our patients were referred to the Clinical Oncology Department to complete their adjuvant chemotherapy and radiotherapy according to protocols.

Technique-related complications

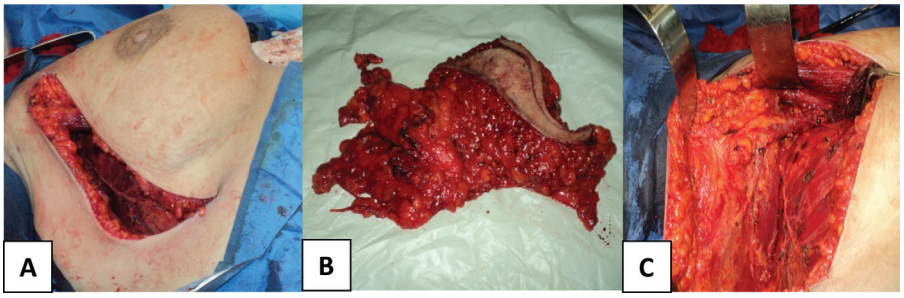
All patients were assessed for the onset of wound infection, hematoma, wound dehiscence, and seroma.

Figure 1



(a, b) Preoperative drawing of the incision

Figure 2



(a) Cavity after tumor excision. (b) Excised tumor with the axillary lymph nodes. (c) Axilla after axillary clearance

Esthetic outcomes

The cosmetic appearance was evaluated at 6 months postoperatively using objective and subjective scoring system and the mean was calculated. Using a grading system, a score of 5 to 1 (5, excellent; 4, good; 3, satisfactory; 2, poor; 1, very poor) was given after assessment of breast symmetry, nipple–areola complex symmetry, and shape of the breast (Fig. 4) [15].

Oncological outcomes

Our patients were followed up for early detection of local recurrence and patient support. Follow-up was every 2 weeks for 1 month, monthly for 3 months, every 3 months for 1 year, every 6 months for 2 years, and then annually. During follow-up, oncology nurse navigators answer questions, support patients, coordinate care, and educate patients about physical therapy, nutrition, and maintaining health after treatment.

Breast ultrasonography and CA15-3 were performed every 3 months. Mammogram was performed every year. MRI was performed when breast ultrasonography and mammography revealed suspicious data.

Results

The age of our patients ranged from 36 to 58 years (median: 47 years). All patients had tumors located at the upper outer quadrant and closely related to the anterior axillary fold. Most of the patients in this study were diagnosed as having infiltrating ductal carcinoma (14 patients, 77.7%). The size of the tumor ranged from 0.9 to 3.8 cm. Table 1 summarizes demographic, clinical, and pathological features of patients in the study.

The safety margins of our specimens ranged from 1 to 5 cm; and no involved margin on frozen section. Seroma developed in two (11.1%) patients and was treated by means of frequent aspiration. One patient developed a small firm area along the suture line at 11 months

Table 1 Demographic, clinical, and pathological features of patients in the study (*N*=18)

	N
Age	
Range	36–58
Median	47
Tumor stage	
PT1	7
PT2	11
PN1	10
PN2	8
Tumor pathology	
Invasive duct carcinoma	14
Medullary carcinoma	3
Mucinous carcinoma	1
Tumor grading	
G1	5
G2	9
G3	4

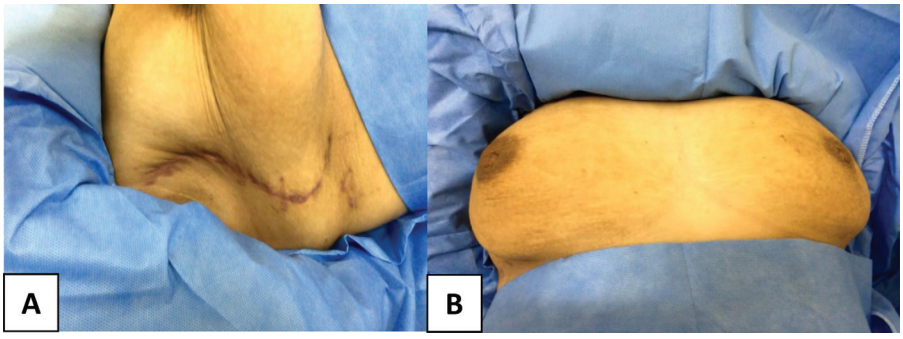
Table 2 Technique-related complication (*N*=18)

Complications	*N*
Infection	0
Hematoma	0
Wound dehiscence	0
Seroma [*n* (%)]	2 (11.1)
Traumatic fat necrosis [*n* (%)]	1 (5.5)

Figure 3

The breast after closure of the wound

Figure 4



The breast at 6 months after excision of the tumor

postoperatively and was investigated using ultrasonography and true cut biopsy revealing traumatic fat necrosis that was treated with surgical excision. Table 2 summarizes technique-related complications.

The cosmetic appearance was evaluated at 6 months postoperatively. Twelve (66.6%) patients showed excellent results, five (27.7%) women showed good results, one (5.5%) patient showed satisfactory result, and no patient showed poor result.

No local recurrence or systemic metastasis was noticed in our patients during a median follow-up period of 38 months (range: 27–49 months).

Discussion

Most of the breast tumors occur at the upper outer quadrant [12–14]. Therefore, upper quadrant techniques are commonly used in patients undergoing surgeries. Lateral mammoplasty technique is the most famous one used for the treatment of tumor located in the upper quadrant. One of the major complications of the lateral mammoplasty is obvious scar and nipple deviation [16,17]. Our incision is completely present laterally; hence, it gives better cosmetic appearance, and nipple deviation is less commonly to occur. Obtaining negative margin is an essential requirement to decrease tumor recurrence and prevent conversion to mastectomy [18–20]; our technique allows complete excision of a large tumor with safety margin and reexcision was not required. Local recurrence did not occur after a median follow-up period of 38 months (range: 27–49 months).

The oncological safety of this approach over a longer period of follow-up is going to be addressed in another publication

Finally, the advantages of this technique over different techniques used in this site are as follows: it is a very simple technique, with good cosmetic appearance and an easy learning curve, and allows easy axillary dissection.

Conclusion

The lazy lateral technique is a novel approach for surgical treatment of upper outer quadrant breast cancer near anterior axillary fold. It is oncologically safe procedure and promotes satisfactory esthetic outcomes.

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Conflicts of interest
There are no conflicts of interest.

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