

## Case report

### Mastectomy under Local Anesthesia in Locally Advanced Breast Cancer in an Unfit Patient

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#### Abstract

Breast cancer is the most common cancer and leading cause of death in women. Mostly it is present in old age with advanced stage. Mastectomy under general anesthesia is the treatment of choice. But as old age is associated with some co-morbidity which increase the operative risk and contraindication for operation. Here we describe a case of 50-year female came to Outpatient Department of Abbasi Shaheed Hospital with complaint of left breast lump for 1 year and dry cough for 2 weeks. On examination there was a large fungating mass on left breast with palpable left axillary lymph nodes. Trucut biopsy shows invasive ductal carcinoma grade II. Mastectomy was planned under general anesthesia but due to some respiratory problems general anesthesia fitness was not obtained. So in view of patient condition, toilet mastectomy under local anesthesia was done successfully. Local anesthesia is safe and effective method in patients who have substantial risk for general anesthesia. Successful surgeries under local anesthesia have already been reported and it should be preferred when it is necessary.

**Keywords:** Carcinoma of Breast; Mastectomy; Local anesthesia

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#### Introduction

Breast cancer is the most common cancer in women<sup>1</sup>, and the second leading cause of death worldwide<sup>2</sup>. Early diagnosis of breast cancer improves prognosis as approximately 10 -15% of patients die due to cancer metastasis or recurrence<sup>3</sup>. As it occurs in elderly women, the presence of comorbidities may lead to increase risk at surgery<sup>4</sup>. Mostly, females present with advanced stage. American National Comprehensive Cancer Network guidelines recommend neoadjuvant chemotherapy to downstage tumors before surgery in locally advanced breast cancer.<sup>5</sup> However, only 15-17% patients achieve pathological complete response after treatment, that is, no residual tumor in breast<sup>5</sup>. Multidisciplinary assessment is the key to maximize the risk/benefit of different treatment modalities.<sup>6</sup>

Although general anesthesia provides better condition for breast surgery, advanced age and comorbidities may represent a contraindication for operation<sup>4</sup>. Mastectomy under local anesthesia may be an option

for these patients<sup>1</sup>. Breast conservative surgeries for early breast cancers was reported to operate under local anesthesia<sup>7</sup>.

Here in we presented a case of female with advanced breast cancer who underwent toilet mastectomy with local anesthesia as she was not suitable for general anesthesia due to respiratory problems.

#### Case

A 50-year married female with no known prior comorbid, presented to surgical Outpatient Department with complaint of, left breast lump for 1 year and dry cough for 2 weeks. The patient stated that she was in her usual state of health 1 year back when she noticed a lump in her left breast during bathing. This lump was progressively increasing in size during this period but there was no any other symptoms associated with it. Then approximately 4 months back, she noticed redness and ulcerated wound over the lump. There was a serous and bloody

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discharge from this wound. There was associated generalized weakness and anorexia and a significant weight loss from 55kg to 45 kg in last 4 months. There was also dry cough from 2 weeks. There was no history of fever, jaundice and vomiting.

She has 4 children which was delivered through normal spontaneous vaginal deliveries. She breastfed all her children. She had menarche at age of 13 years and early menopause at age of 42. She had no family history of any malignancy.

On examination, a thin lean female sitting comfortably on bed, vitally stable but mildly anemic. On breast examination, right breast was unremarkable while left breast had a fungating mass of approximately 12x12 cm at 11'o clock position of inner upper quadrant having yellowish white patches and bleeding point over it (fig.1). It was non-tender, mobile not attached to underlying chest wall and overlying skin. Another mobile irregular mass of about 7x7 cm at 3'o clock position was palpable.

There was associated skin discoloration and peau'd orange appearance and left nipple retraction. There was left anterior axillary lymph nodes palpable. No viceromegaly on abdominal examination, chest examination showed vesicular breathing with no any added sound and bilateralequal air entry.

Musculoskeletal examination was unremarkable. There was no bony tenderness.



**Fig. 1.** Fungating mass at left breast at the upper inner quadrant

Her laboratory results show Hb – 8.6 g/dl, Hct- 31.8, TLC –  $14.4 \times 10^3 / \mu\text{L}$ . Her liver and kidney function tests were all within normal limits. Chest x-ray was unremarkable. Ultrasound abdomen showed coarse liver texture with no any sonological evidence of any

mass or metastasis in liver, bilateral grade II renal parenchymal changes. Trucut biopsy was done with results of invasive ductal carcinoma, histological grade II. The CT chest and upper abdomen with contrast findings were left breast malignant mass with ipsilateral axillary lymphadenopathy, no evidence of pulmonary, hepatic or adrenal metastasis (fig.2). Bone scan is negative for metastatic involvement of skeleton .

During pre-operative evaluation, patient was not fit for surgery under general anesthesia by anesthetist due to cough and anemia. She was transfused 2 pint of PCV after which her Hb – 10.6g/dl. But cough not resolved despite of treatment so fitness for surgery not obtained. So our surgical team planned of toilet mastectomy under local anesthesia. Upon obtaining patient informed consent, left sided toilet mastectomy done under local anesthesia Initially patient was given diluted opioid – 3cc of intravenously injection Nalbuphine 10mg diluted in 9cc distilled water then local anesthesia with 2 % xylocaine diluted with distilled water with ratio of 1:1 making it 1 % was made and infiltrated in facial planes of left breast at the incision site then flap elevated, breast tissue removed from its bed till pectoralis major, hemostasis secured, redivac drain of 18 G placed, wound closed in layers, skin closed in interrupted manner, aseptic dressing done and crape bandage applied. The specimen sent for histopathology.

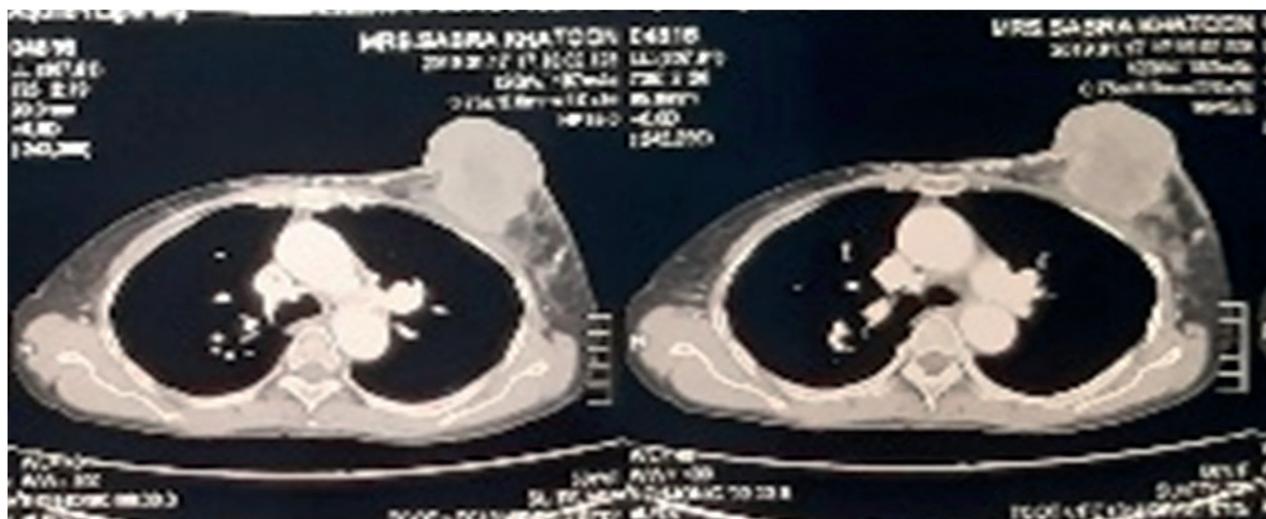
Post-op patient was given intravenous antibiotics and analgesics. The surgical drain with total output of 50 cc was removed on 4<sup>th</sup> post-op day. Patient was discharged on 5<sup>th</sup> post-op day on oral medication. On her first follow –up in OPD on 8<sup>th</sup> POD, there was a discharge from incision which was cultured that reveals staphylococcus aureus, tab let Linezolid was given for 5 days for this according to sensitivity. Infection subsided and stitch removed on 13<sup>th</sup> post-operative day.

The histopathology report stated: LEFT BREAST INVASIVE DUCTAL CARCINOMA, GRADE III (modified Bloom-Richardson). The tumor size was 6.0x4.5x4.0cm, tumor is 0.2 cm away from deep margins. A separate focus of ductal carcinoma in situ in lower outer quadrant. 2 lymph nodes are recovered, which showed no any metastasis.

- pTNM staging: pT4 , N0, M0.

She had Stage IIIB Left Breast Cancer.

The patient referred to oncologist for post-operative chemo/ radiotherapy but they stated that there was no need of any adjuvant therapy. She was started on



**Fig. 2.**CT chest

oral tablet tamoxifen 10 mg x BD. She did not have any problems related to mastectomy on her 1<sup>st</sup> month follow-up.

### Discussion

Breast cancer is a growing health problem among women and causes many deaths every year.<sup>4</sup> Due to lack of awareness and embarrassment, mostly female presented with locally advanced disease. Locally advanced breast cancer usually encompasses stage III disease, defined as T0- T3 primary tumors with clinically detectable axillary, ipsilateral infraclavicular, supraclavicular nodes or tumor extension to chest wall or skin (T4) regardless of nodal status.<sup>8</sup> Historically, a mastectomy performed under GA has been the treatment of choice to control the local growth of disease.<sup>9</sup> As majority of patients are of older age, they suffer from one or more comorbidity which increase the operative risks under GA, even in early stages.<sup>9</sup> Age becomes not only a risk factor for breast cancer but also a poor prognostic factor.<sup>10</sup> LA is safe and effective method of preventing morbidity in patients who have a substantial risk for GA due to older age and comorbidity.<sup>4</sup> Successful major surgeries under LA have already been reported and it should be preferred when it is necessary.<sup>4</sup>

Neoadjuvant chemotherapy (NAC) is increasingly used to treat locally advanced breast cancer.<sup>11</sup> Improved response to NAC correlates with better survival outcomes.<sup>11</sup> It is recommended to downstage the tumor before surgery, although only small fraction of patients respond completely after treatment<sup>5</sup>.

Although mortality due to breast cancer is low (<5%) but it is still the leading cause of female cancer deaths

in almost all countries<sup>12</sup>. It is affecting >1.6 million women yearly, projected to increase to 2.2 million cases yearly by 2025. Mostly women who dies due to breast cancer reside in low-resource settings. Breast cancer control is an important component of cancer control planning and women's health program and many tools are needed to decrease the burden of cancer<sup>13</sup>. There are certain recommendations for women to reduce the risk of breast cancer which are; reduce excess weight, first child before the age of 30, breastfeeding, avoid smoking and alcohol consumption<sup>12</sup>. Evidence shows that when prevention, early diagnosis, treatment and palliation are incorporated, outcomes are improved<sup>13</sup>.

### Conclusion

In conclusion, breast surgery is feasible under local anesthesia in elderly patient with advanced disease who are not fit for surgery under General anesthesia. It seems to be safe and effective mode of treatment and it should be keep in mind while dealing with advanced breast cancer whose surgery is delayed only because of anesthesia fitness.

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