



## A Case of Metaplastic Carcinoma Of Breast In A Young Women

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### Abstract

Metaplastic carcinoma of breast also known as carcinosarcoma is an extremely rare aggressive variant of breast cancer which accounts for less than 1% of cases. It is characterized histologically by the presence of two or more cellular types such as neoplastic epithelial component and mesenchymal elements like spindle cells in this case. Management of metaplastic carcinoma is challenging due to its rarity and varied histological types. Hence there is no any standard protocol or algorithm for treatment of metaplastic carcinoma till date. Most of the cases molecular studies are found to be triple negative similar to our case. In our case report 32-year-old women presented with left lump breast was diagnosed with metaplastic carcinoma of breast who previously underwent right side mastectomy with breast wall reconstruction for recurrent phyllodes of right breast. Lymph node metastasis was negative for the patient and tumor size was around 5-6cm. Hence patient was offered wide local excision with adjuvant radiotherapy. This case report discusses the various multidisciplinary treatment options widely advocated currently with reviewing various studies for better understanding of the disease prognosis and survival.

**Keywords:** Metaplastic carcinoma, Triple negative breast cancer, targeted chemotherapy

### Introduction

Metaplastic carcinoma of breast also known as carcinosarcoma is an extremely rare aggressive variant of breast cancer which accounts for less than 1% of cases.

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### Case Report

A 32-year female presented with the complaint of swelling over the left breast for past 1month associated with pain. Patient had no history of trauma in the recent past, no nipple discharge, no

retraction of nipple. Physical examination revealed a firm swelling of 7x5cm over left breast was noted. There was no any ulceration or tenderness over the swelling. A scar was present below the swelling site. Patient had undergone excision biopsy for fibroadenoma 6 months back elsewhere. There was no palpable axillary or supraclavicular lymph node present. She had no history of breast cancer in any of her first-degree relatives. Usg revealed a heterogenous echogenic mass over the left upper inner quadrant with increased vascularity and dilated duct extended from mass.

Patient underwent surgical excision and histopathological examination revealed predominant spindle shaped cells found diffuse scattered and

invading the ducts. IHC were negative for ER, PR and Her 2 neu receptors making it a triple negative breast cancer. As a part of Multidisciplinary approach, the pathologist reports a diagnosis of metaplastic breast cancer with spindle cell lesion. Following which metastatic workup was done and no evidence of metastasis was noted. Patient sent for adjuvant chemotherapy and radiotherapy. On 14 months of follow up no recurrence noted.

### Discussion

Metaplastic carcinoma of breast are heterogenous tumours with epithelial and mesenchymal components most commonly spindle cell carcinoma or squamous cell carcinoma<sup>1</sup>. Most of cases of MpBC are TNBC and are more aggressive than conventional TNBC, hence there is very limited role of neoadjuvant chemotherapy<sup>2</sup>. The poor response to chemotherapy is postulated due to the Basal-like claudin-low mutation<sup>3</sup>. In a study conducted by Tseng and Martinez found there was no difference in overall or disease-specific survival whether MBC patients were treated with mastectomy or lumpectomy<sup>4</sup>. After NSABP B-06 trial, there was a shift from mastectomy to BCS in desirable patients diagnosed with IDC,

however patient with larger tumors needed to undergo mastectomy. Similarly, lymph node involvement in MpBC is rare (15 -20%) and the axillary staging of MpBC is evolving<sup>5</sup>. After Z0011 trial results there was limited role of ALND in patients treated with BCS and prior radiotherapy.

But there are no specific guidelines on ALND in MpBC by Z0011 trial<sup>6</sup>. Recurrence of 10.5 % noted after lumpectomy hence adjuvant RT and CT are advised. Newer research is being carried out emphasizing the role of targeted chemotherapy against EFGR in MpBC<sup>7</sup>.

### Conclusion

#### Abbreviations:

CT – computed tomography

Fig – figure

Pod- post operative day

MpBC- Metaplastic breast cancer

There are no standard guidelines like NCCN on management of MpBC and there is less evident role of targeted therapy on EGFR. Hence, we recommend to conduct more studies and trial to frame a standard protocol for the better outcome of patients diagnosed with Metaplastic carcinoma of breast.

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TNBC- Triple negative breast cancer.

**Figures**

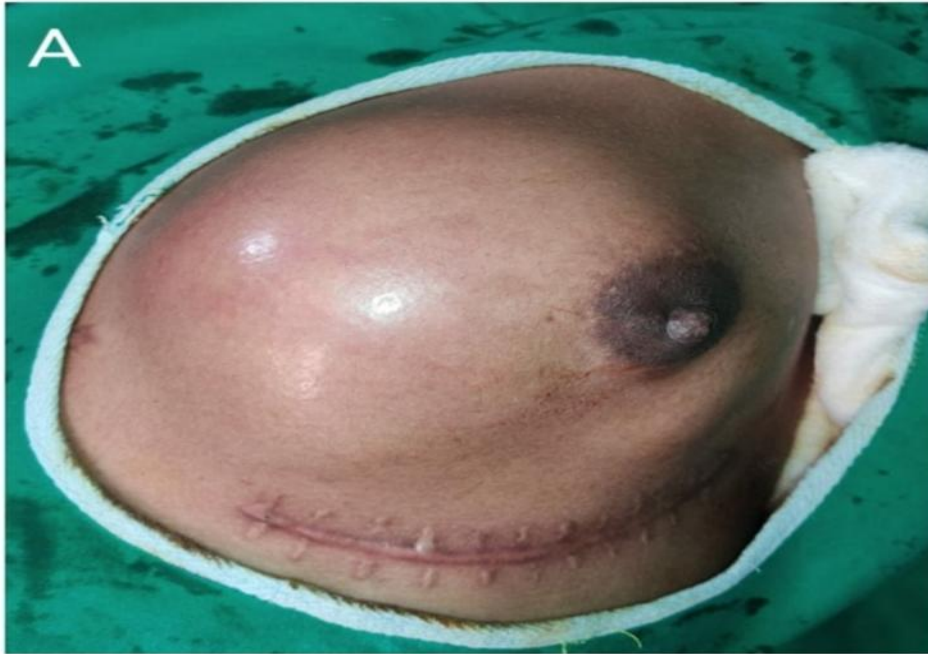


Fig A showing lump over the left breast pre operatively.



Fig B showing the resected specimen



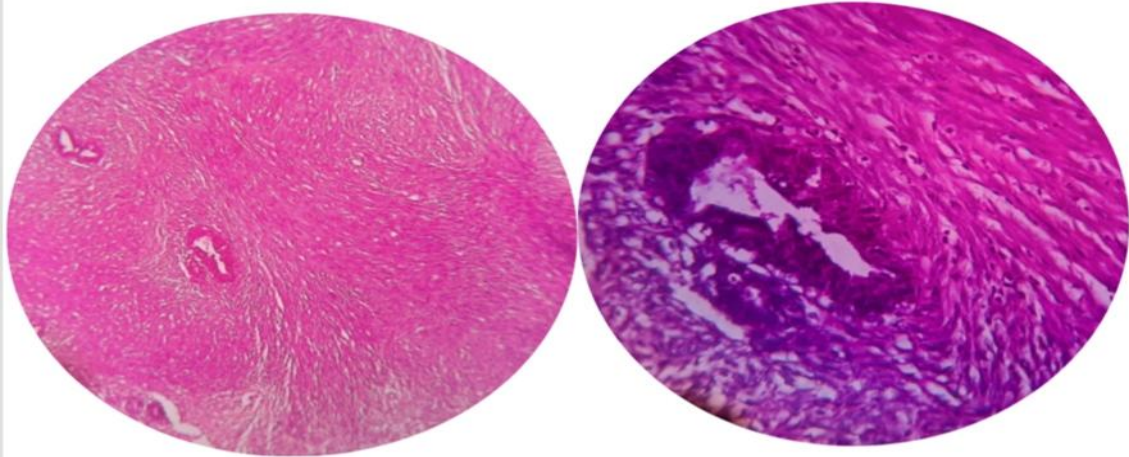


Fig C HPE of resected specimen showing spindle cell , also tumour cells invading duct

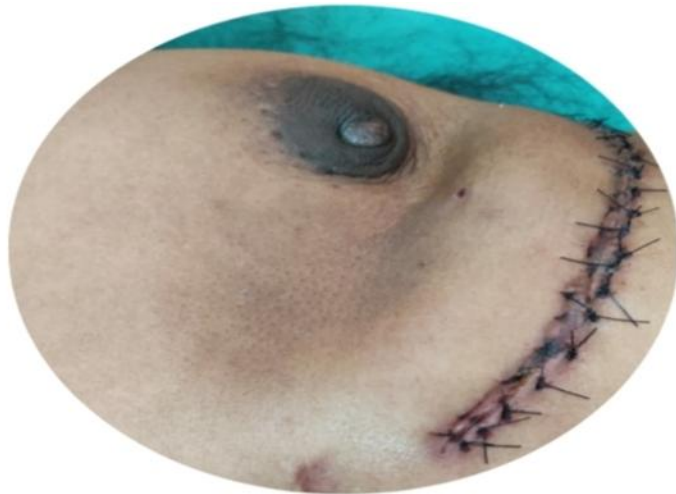


Fig D showing post operative scar over left breast , also note the flap over the right breast.

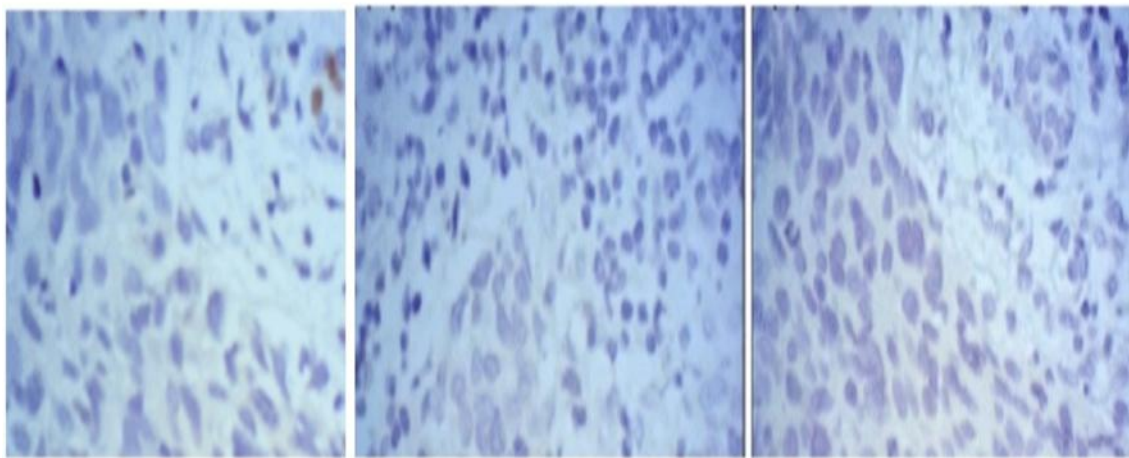


Fig E showing triple negative on IHC