



Metaplastic Carcinoma Right Breast (Squamous Differentiation).– A Rare Case Report

Alice Priscilla Alice

Department of General Surgery
Coimbatore Medical College, Coimbatore

Abstract

Metaplastic carcinoma of breast is a rare neoplasm of the breast. Although it is a tumour of ductal type, the predominant component may have an appearance other than the glandular pattern and it usually runs an aggressive course despite all treatment modalities. In our case, 65 year old female presented with painless lump of short duration and rapid growth with no other symptoms of metastasis. Investigations revealed a metaplastic carcinoma breast in cytology with no evidence of local and distant metastasis. We proceeded with modified radical mastectomy of right breast. HPE report confirmed it as a metaplastic carcinoma with triple negative receptor status and no lymph node positivity. The patient was subjected to adjuvant chemotherapy for 4 cycles of FEC (5 fluorouracil, epirubicin and cyclophosphamide) every 3 weeks since it is triple negative. The patient was followed for the past 8 months, she had no local and distant recurrence. She is doing well. The treatment of metaplastic carcinoma breast is yet to be defined. In spite of the treatment as like of invasive ductal carcinoma, the metaplastic carcinoma breast has got poor prognosis.

Keywords:

Metaplastic carcinoma, breast

Introduction

The reported incidence is 0.2% of all breast cancers. It is a rare heterogeneous neoplasm generally characterised by mixture of adenocarcinoma with spindle cells, squamous cells and/or other mesenchymal differentiation. This case merits presentation because of its rarity and it is difficult to diagnose if the tumour is composed of sarcomatous elements.

Case Report

We report a case of metaplastic carcinoma right breast with squamous differentiation in a 65 year old female. She presented with a lump right breast for the last 3 months in Department of General Surgery in Coimbatore Medical college hospital with no other symptoms of metastasis. The patient had no comorbid conditions. Her vitals were stable and normal. On clinical examination, the patient had a lump of size 4 * 2 cm in the upper and outer quadrant of right breast, not fixed to the skin and chest wall with no axillary lymphadenopathy and opposite breast and axilla normal. The other system examination was found to be clinically normal.

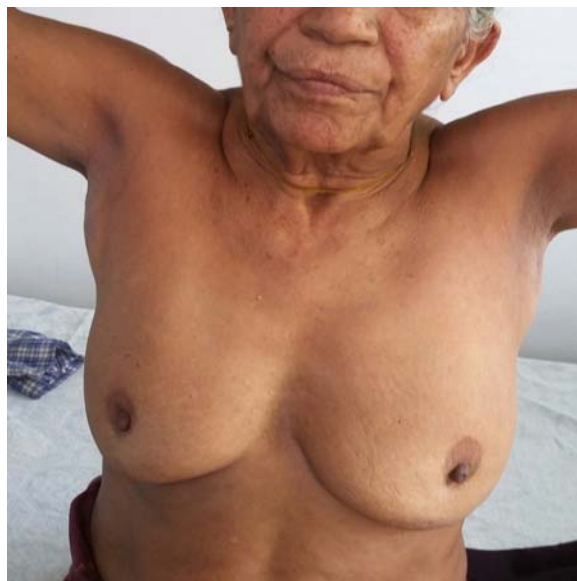


Fig 1: Clinical picture of patient with metaplastic carcinoma of right breast



Fig 2: Clinical picture of patient with metaplastic carcinoma of right breast

The patient was subjected to investigations for diagnosis. FNAC showed metaplastic carcinoma / angiosarcoma. Trucut biopsy showed metaplastic carcinoma breast. .USG right breast showed 4*2.3cm hypoechoic mass with microlobulation. Routine blood investigations were found to be normal. ECG and X ray chest were found to be normal. Skeletal survey, LFT, USG whole abdomen and pelvis, CT chest showed no evidence of distant metastasis.

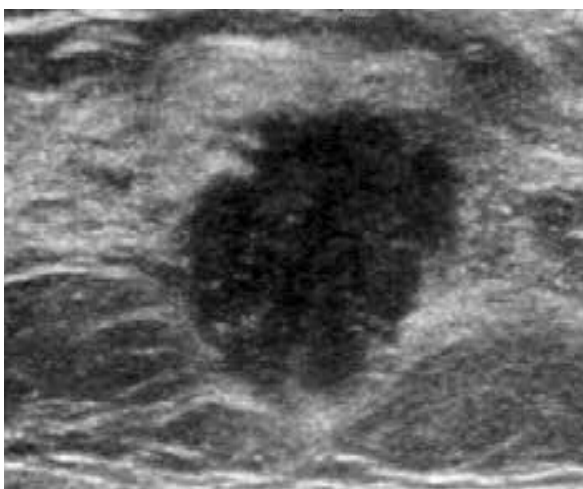


Fig 3: USG of metaplastic carcinoma right breast showing hypoechoic mass with microlobulation

She underwent modified radical mastectomy. Postoperative period was uneventful. The wound was healthy. Histopathology report was suggestive of metaplastic carcinoma right breast which showed a mixture of glandular epithelial elements and mesenchymal elements predominantly squamous cells. The receptor status ER, PR, her2-neu was found to be negative. The resected specimen had a negative marginal clearance and no lymph node involvement.



Fig 4 : Resected specimen of modified radical mastectomy of right breast.

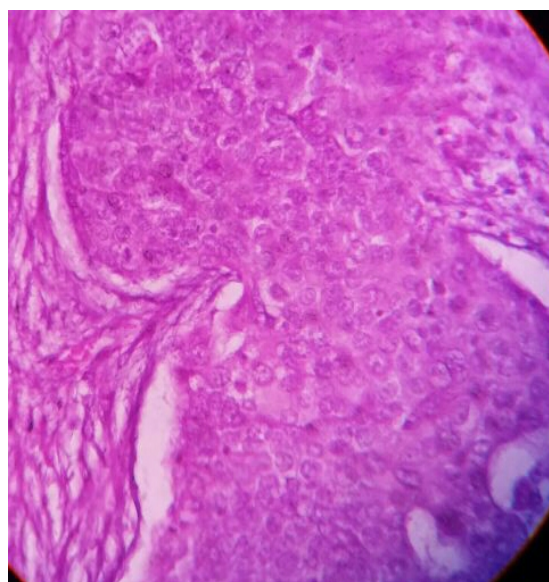


Fig 5 : Histopathological specimen slide of metaplastic carcinoma breast with squamous metaplasia

The patient received adjuvant chemotherapy four cycles FEC regimen (fluorouracil, epirubicin, cyclophosphamide) every 3 weeks. Patient was in regular follow up for the past 8 months and the patient has no evidence of distant and local recurrence. She is doing well till now. The prognosis of the disease was very well explained to the patient and the patient's relatives.

12/5/19
P.S./SL

Sivagami
65/F
22469

Dr. AD

Specimen: M.R. specimen

14/19 **MACROSCOPY:-**

PROCEDURE:- Modified Radical Mastectomy specimen - Right

specimen size: 2.9 x 1.4 x 3.5 cm

gross site: Upper outer quadrant

gross size: 3.5 x 2.5 x 2 cm (depth)

gross feature: Unifocal

Margin clearance: Tumour has a cut margin clearance of 1 cm superiorly, 10.5 cm inferiorly, 8 cm medially, 17 cm laterally. Deep cut margin clearance is 20.1 cm

Microscopy:-

histologic type: Metaplastic carcinoma with squamous differentiation

margin: Superficial, medial and lateral cut margins are free from tumour. Tumour is very close to deep margin

gross extent: Nipple areola complex is uninvolved

intra-vascular invasion: Not identified

extensive invasion: Present

lymph nodes: 9 lymph nodes studied shows no evidence of metastatic carcinoma deposits

13/4/19
Skin - free from tumour

Fig 6: Histopathological report of the patient from our college pathology department showing the metaplastic carcinoma of the breast.

Discussion

Metaplastic carcinoma right breast is a rare malignant tumour accounting for <1% of all invasive mammary carcinoma. Breast carcinoma with squamous cell metaplasia is classified as mixed epithelial and mesenchymal metaplastic carcinoma according to WHO.

Metaplasia is essentially a reversible replacement of one differentiated cell type with another mature differentiated cell type. This is not a normal occurrence, but the cause is likely to be some kind of abnormal stimulus. It is a kind of cellular adaptation in other words. Mammographic and sonographic features of metaplastic tumours can appear to be benign masses. But histologically, most metaplastic

tumours tend to be of a high grade, suggestive of a more aggressive cancer. Fine needle aspiration biopsy is an acceptable diagnostic approach with metaplastic tumours. This is because the chances of finding a distinct carcinomatous epithelial component from anywhere in the tumour are good.

Metaplastic carcinomas are mostly triple negative so as to speak. However, metaplastic breast tumours do tend to express the HER1/EGFR receptor at a considerably higher rate than most other types of breast carcinoma. Sadly, triple negative tumours often seem initially receptive to chemical therapy, but are also prone for recurrence during the first 3 years following therapy with higher rate of mortality. Recent studies have shown that non triple negative metaplastic carcinoma actually has a poorer prognosis in comparison with triple negative metaplastic breast carcinoma.

For most cases, treatment for metaplastic breast cancers are with mastectomy with or without axillary dissection. In the vast majority of cases, doctors also use adjuvant chemotherapy in addition doctors may prescribe radiation but this is less common. The rate of local recurrence is variable but estimated to be around 30%. Studies also estimate the five year disease free rate to be around 40%. Furthermore, estimates for the overall five year survival for metaplastic carcinoma breast tends to be at around 50 to 65%.

Conclusion

It is a rare subtype of invasive breast cancer characterised by a fast growing painless lump at presentation, lower rate of axillary involvement, high rate of both local and distant spread with poorer prognosis.

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