

Giant Sarcomatoid Carcinoma of the Breast - a Rare Case Report

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ABSTRACT

Metaplastic breast carcinoma breast is rare entity having mixture of epithelial and mesenchymal elements which contains overtly sarcoma-like elements on light microscopy and its clinical behaviour is not well documented. We are presenting a case in a 50 - year old female presented with a large swelling over the left side of the breast. On histopathology, diagnosis made as metaplastic carcinoma of the breast with sarcomatoid variant. The case merits presentation because of its rarity, low frequency of axillary metastasis and difficulty in interpreting the morphological features which correspond with prognosis.

Keywords: chest, breast, giant, ulcer, metaplastic, surgery

INTRODUCTION

Metaplastic breast cancer is rarely seen and accounts for less than 1% of all mammary tumors (1,2). Metaplastic carcinoma of the breast is a histologically diverse group of malignancies in which adenocarcinoma is found to co-exist with an admixture of spindle cell, squamous, chondroid or bone-forming neoplastic cells. The rar-

ity of such carcinoma and the low frequency of axillary metastases make it difficult to study the morphologic features. Predictably, prognosis in metaplastic carcinomas worsens with increasing stage of the tumour. □

CASE REPORT

A 50 - year old female presented with pain and swelling in the left breast since one year. There was no other associated complaint

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except for discomfort by the swelling and dyspnoea. There was no loss of weight and appetite. No family history was present.

On examination, vital were stable except for tachycardia. Total leukocyte counts were raised. Local examination of the left breast revealed a large lump of size about 14 x 26 x 18 cm which was involving whole of the breast region and hard in consistency (Figure 1). The overlying skin of the breast was inflamed and ulcerated. Nipple and areola was eroded. Lump was fixed to the underlying structures. Two axillary lymph nodes were felt, which were mobile and firm in consistency. The other breast was normal. Routine blood tests were within normal limits except raised total leukocyte counts.

Fine needle aspiration was suggestive of carcinoma of breast with possibility of metaplastic carcinoma type. A transverse elliptical incision was given. Tumour resected with some part of the muscles which were adherent to the tumour. Left radical mastectomy with axillary clearance was done. It was not possible to close skin primarily, so skin grafting was done. Post-operatively, patient remained on ventilatory support for 3 days. She got infection on the operated site and developed respiratory infection along with pleural effusion. Patient expired on 3rd post-operative day due to septicaemia/multi-organ failure.

On cut section, it was greyish white in colour, firm in consistency with few myxoid areas. Microscopic examination revealed differentiated ductal carcinoma with desmoplasia. The atypical glandular structures extended into the

areas where tumour cells depicted sarcomatous morphology resembling sarcoma (Figure 2). Areas of osteoid formation were seen merging in to the sarcomatous component. Based on above findings, diagnosis made as metaplastic carcinoma of the breast with sarcomatoid variant. □

DISCUSSION

The reported incidence is as little as 0.02% of all breast malignancies and 0.2% of all malignancies (1). Metaplastic carcinoma breast is rare neoplasm containing mixture of epithelial and mesenchymal elements, although epithelial component is ductal carcinoma, the predominant component may be mesenchymal (2). The true definition of metaplastic carcinoma of the breast is a tumor of malignant epithelial tissue (carcinoma) mixed with malignant cells of mesenchymal origin (sarcoma) with apparent histological and cytologic features present on light microscopy and immunohistochemical testing (3). It is a rare breast tumour consisting of intraductal and infiltrating carcinoma which is contiguous with highly cellular mitotically active pleomorphic spindle cell stroma (4).

The tumours with heterologous components may demonstrate spindle cell areas, cartilage formation and bone formation as well as rhabdomyoid, melanocytic, adipose and angiosarcomatous metaplasia (5,6). In most of the tumours, areas of infiltrating ductal carcinoma and heterologous elements are seen in varying proportions as seen in the present case. The sarcomatous component in the present case re-



FIGURE 1. Large lobulated mass with erosion of nipple and areola of left breast

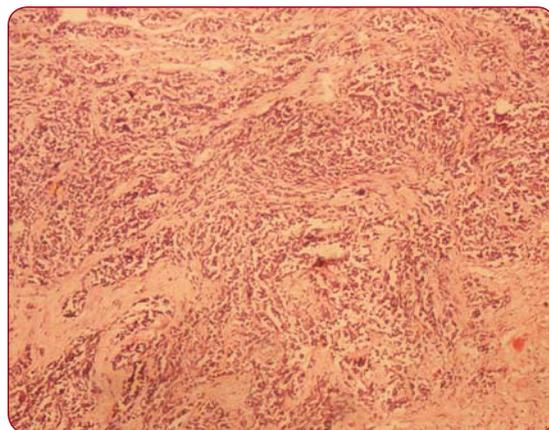


FIGURE 2. Metaplastic carcinoma of the breast showing glandular and spindle cell components (H& E; 200 - X)

sembled a malignant fibrous histiocytoma with presence of bizarre tumour giant cells and as described by Atahan et al (7). Metaplastic malignancies pose differential diagnostic problems on clinical and histopathological basis, because of the varied nomenclature (8).

Carcinosarcoma of the breast (metaplastic, biphasic metaplastic, metaplastic sarcomatoid carcinoma, sarcomatoid carcinoma) is an aggressive, rare neoplasm that has been reported to account for 0.08-0.2% of all breast malignancies (9). The axillary nodal involvement is less common in metaplastic carcinoma as reported in present case, since purely spindled or sarcomatoid tumours have significant lower rate of nodal metastasis than conventional ductal and lobular carcinomas (10). □

CONCLUSION

Sarcomatoid carcinoma of the breast poses a differential diagnostic problem on clinical and histopathological basis, because of the varied nomenclature. It is an uncommon subtype of breast cancer and is of considerable interest due its pathological heterogeneity and differences in clinical behaviour. In our case, patient was expired in 3rd post-operative day of surgery. Complete surgical resection is the treatment of choice whenever feasible. Adjuvant radiotherapy or chemotherapy is indicated in cases with adverse pathological features and in recurrent or incompletely resected lesions. Purely spindled/sarcomatoid tumours have a significantly lower rate of nodal metastases than conventional ductal and lobular breast carcinomas.

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