

Metaplastic Breast Carcinoma: A Rare Entity

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ABSTRACT

Metaplastic Breast Carcinoma is a rare malignancy among invasive breast carcinoma. The patients usually present with large tumor size, axillary lymphnode metastasis and triple negative. The management of Metaplastic Breast carcinoma largely parallels that of Invasive Breast Carcinoma. In this case report, we found a case of metaplastic breast carcinoma with axillary lymphnode metastasis which is very rare.

Keywords: metaplastic breast cancer, metastasis, Nepal

Introduction

Invasive Breast carcinoma is the 3rd leading cause of cancer in females of Nepal.¹ Among the invasive breast cancers, metaplastic breast cancer is a rare malignancy, comprising of 0.25 – 1 %. It is characterized by the histologic presence of two or more cellular types, commonly a mixture of epithelial and mesenchymal components.² The biomarker profile for MBC is usually triple negative (ER, PR and her2 neu). The World Health Organization (WHO) recognized MBC as a unique entity in 2000.³ Even though it is a distinct entity, the optimal treatment strategies are unknown. So, management of MBC has largely paralleled that of Invasive Ductal Carcinoma.⁴

Case Report

A 36-year-old lady, unmarried had presented with bloody discharge from her left breast 1 year back since March 2017. Serum prolactin was normal. Mammogram of bilateral breast showed normal reports with BIRADS score of 1. After three months of duration she also noticed a lump in her left breast. Then she was evaluated with ultrasonography of bilateral breast which revealed a homogenous hypoechoic soft tissue mass with smooth margin of 19 x17 mm in left periareolar region at 9'o clock position, with impression of benign lesion suggesting

of fibroadenoma. FNAC of left breast lump showed features of Proliferative Breast disease without atypia with cystic changes (Figure 1, Figure 2, Figure 3). She was managed conservatively for fibroadenoma. But her lump progressively increased in size. Based on an excisional biopsy a metaplastic carcinoma was diagnosed. She proceeded with left Modified Radical Mastectomy. Pathology confirmed tumor dimension of 9 cm, a high-grade metaplastic carcinoma, Estrogen Receptor positive, progesterone receptor positive and her2 neu negative, stage pT3N1a. She is currently receiving adjuvant chemotherapy.

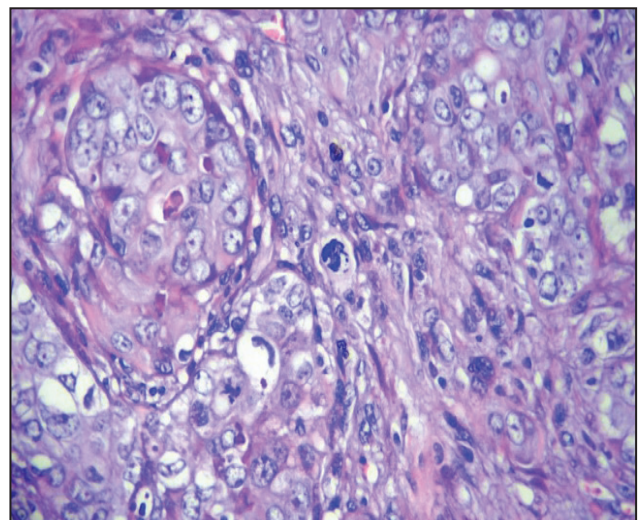


Figure 1: Tumor showing atypical cells and mitotic activity

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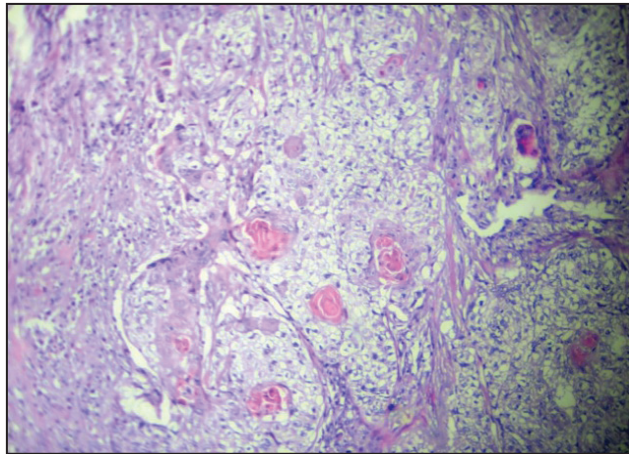


Figure 2: Tumor showing keratin pearls

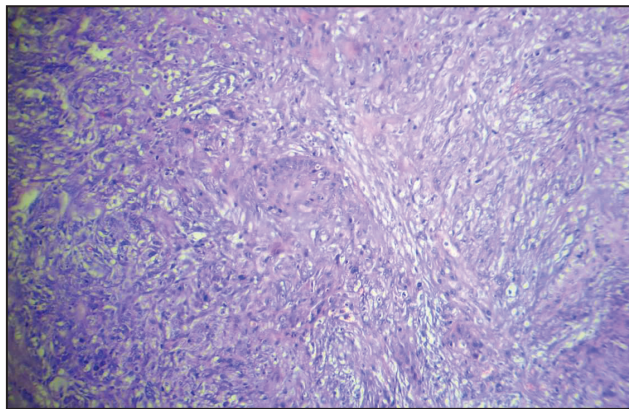


Figure 3: Mesenchymal components appears malignant with atypical clump to spindle cells having pleomorphic hyper chromatic nuclei and prominent nucleoli

Discussion

MBC was first described by Huvos et al. in 1973, was defined as a mammary carcinoma with mixed epithelial and sarcomatoid components.⁵ The gold standard for diagnosing MBC is by pathologic assessment.

Patients with MBC were most commonly found to be older, with large tumor size, more advanced stage and usually triple negative.⁶ In this report the patient was of young age with large tumor size, axillary node positive and estrogen receptor positive. MBC usually presents with axillary lymph node metastasis in 22-31% of patients.⁷ The patients with Lymphnode metastasis have a greater risk of developing metastatic disease and poorer prognosis than invasive Ductal carcinoma patients.⁸ As lymphnode positivity has poor survival, early diagnosis and treatment is crucial.

As typically MBC patients present with large tumors, they should undergo mastectomy rather than lumpectomy.⁹ Adjuvant chemotherapy for MBC follows the treatment paradigm for conventional

Invasive Ductal Carcinoma. In patients undergoing mastectomy, axillary nodal metastasis, large tumor size > 5 cm requires radiotherapy. But a study conducted by Luini et al. stated that radiotherapy is to be considered regardless of the type of surgery.¹⁰ In our patient, the patient will be proceeding to radiotherapy after adjuvant chemotherapy followed by hormonal therapy.

Conclusion

MBC is rare entity among breast carcinoma in Nepal, which is similar to reports of MBC from all over the world. In clinical therapy, MBC usually follows the treatment paradigm for conventional Invasive Ductal carcinoma. The ideal treatment guideline for MBC is unknown and the potential predictors of treatment efficacy need to be explored.

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