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Case Report

A rare case of metaplastic carcinoma of breast

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ABSTRACT

Breast carcinoma is one of the most common cancers among women. There are different types of breast carcinoma that affects female such as localised, invasive ductal/lobular, advanced type. All of them can be managed with standard treatment and it has got variable prognosis. Yet there is another type of breast carcinoma with worst prognosis, low survival rate which does not have proper standard management, it is called as metaplastic carcinoma. We had a 60-year-old postmenopausal female who was diagnosed with metaplastic breast carcinoma managed by simple left mastectomy and Lattissmus dorsi flap.

Keywords: Metaplastic carcinoma, Triple negative tumors, Lattismus dorsi flap, Chemotherapy

INTRODUCTION

In 1973, Huvos and colleagues first described about the metaplastic carcinoma of breast.[1] It is an extremely rare locally aggressive breast tumor. Eventhough it is rare, it has been observed in females during their middle ages in the past few years. It usually manifests as a rapidly enlarging breast lump associated with significant pain. Often, it will be confused with triple negative tumor, which is extremely resistant to chemotherapy and hormonal therapy.

CASE REPORT

A 62-year-old postmenopausal women, who was a diabetic, presented with complaint of lump in the left breast, which was gradually increasing in size over a period of 1 year. She also had intermittent pain in the left breast. She did not have symptom of nipple discharge. She denied history of trauma, loss of appetite or loss of weight. She delivered 3 children by normal vaginal delivery without any intra or postpartum complications. On physical examination, diffusely enlarged left breast with irregular mass and retracted nipple were noted. It was hard to firm in consistency and tender on palpation. Based on the examination findings, it was suspected to be an inflammatory carcinoma of left breast. Right breast was unremarkable.

Figure 1: Left breast showing hard irregular mass.

We proceeded with further investigation. A bilobulated hypoechoic mass of 5.4×8.9×8.1 cm at the retro-areolar region of left breast adherent to the skin and subcutaneous tissue was found on mammography. Additionally, there was also evidence of increased flow in the mass noted in color doppler. Imaging reported as an infiltrative mass of left breast with BIRADS score of IV.

Figure 2: Mammographic image of left breast.

We took biopsy from the left breast mass which showed features of malignant spindled and epithelioid cell neoplasm. With the evidence of triple assessment, carcinoma of the left breast was confirmed. In addition to cytology, immunochemistry was also performed to know about the status of hormone receptors, which came as negative for oestrogen, progesterone, Her2Neu receptors. Thereby we confirmed that it was a triple negative tumor. She was offered palliative surgery in view of advanced carcinoma. Palliative simple left mastectomy was done promptly. Intraoperatively, breast tissue was found to be firmly adherent to the pectoralis major and minor muscles which made the dissection cumbersome. Since it was a large tumor, adequate skin flaps could not be raised. Hence, we planned for reconstruction of the breast. Immediate successful reconstruction of left breast was performed with left Lattismus dorsi flap. Two suction drains were placed inside the wound to avoid hematoma and seroma.

Figure 3: Left breast reconstruction with lattissmusdorsi flap.

Final histopathological examination reported as metaplastic carcinoma of left breast, with lympho-vascular invasion and overall histologic score of 3. Patient did not come for further follow up.

DISCUSSION

Metaplastic carcinoma of breast is a very rare subtype among all the other types of breast cancer with an incidence of less than 1%.[2] It is a variant of triple negative tumor with heterogenous, non-specific epithelial differentiation which makes it distinct from other types. It is more prevalent among middle aged women generally more than 50 years of age.

Classical presentation of this carcinoma would be rapidly enlarging breast mass with or without pain. The characteristic features of this tumor are large, rapid growth and negative hormonal status. It is for this reason (triple negative status), hormonal therapy for this tumor is considered as obsolete. According to World Health Organization (WHO) in 2011, it was histologically differentiated into 5 types and classified into epithelial and mesenchymal tumors accordingly.[3] Epithelial tumors includes squamous, adeno-squamous and spindle cell tumors. While carcinosarcoma and osseous metaplasia are included in the mesenchymal tumors. Metastasis to the lymph nodes is comparatively rare with an incidence of 22%. Furthermore, it can metastasize through hematogenous route spreading to the lungs and bone. Mammographic findings of this carcinoma can mimic more like an invasive carcinoma of no special type.

Hence, the treatment regimen that had been followed was similar to that of the invasive carcinoma. But metaplastic carcinoma differs from invasive carcinoma in such a way that it has different presentation and the chances of recurrence being very high. Since the management is uncertain for metaplastic carcinoma, the ultimate primary treatment which can be offered to the patient is mastectomy. The effectiveness of chemotherapy and hormonal therapy are still in debate and it does not change the outcome of the disease. Despite the treatment, outcome of the disease is expected to be the same. It has an outcome with bad prognosis and five-year survival rate of 49% to 68% range.[4]

Surenkok et al reported a case of metaplastic breast carcinoma in a 56-year-old female, who was managed with modified radical mastectomy.[5] In this study, they were insisting more on practising targeted chemotherapy like taxane groups in metaplastic carcinoma since it improves the symptoms in such patients and also their quality of life.

El Zein et al compared the overall survival rate and disease-free survival rate between metaplastic carcinoma and triple negative tumors.[6] Their results were consistent with the metaplastic carcinoma had worse survival rate than the triple negative tumor.

CONCLUSION

Metaplastic carcinoma of breast requires immediate evaluation and it must be managed without any delay as it is a locally aggressive and rapidly progressing carcinoma. Even though the role of radiotherapy or chemotherapy and effects of them in these patients are still in debate, it can be advised for patients with more aggressive carcinoma involving the chest wall after mastectomy.

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