

A Case Report on Myoepithelial carcinoma of breast treated with Multimodality approach

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ABSTRACT

Background: Myoepithelial carcinomas are extremely rare in occurrence with limited number of published articles of malignant myoepitheliomas arising from the breast

Case Report: A 42 year old female patient presented at an outside center with complaints of pain in left breast, sonomammogram was suggestive of lobulated inhomogenous hypoechoic tumor with smooth margins and multiple cystic areas within the tumor involving all quadrants of breast with size of 13.31X8.83X12.04cm. Patient received Adjuvant Radiation of 50Gy in 25 fractions to the chest wall and axilla and followed by Adjuvant Chemotherapy with four cycles of Adriamycin and Cyclophosphamide and four cycles of paclitaxel.

Conclusion: Early detection and multimodality approach is usually required for the management of Myoepithelial carcinoma of Breast

KEYWORDS: Myoepithelial carcinoma, Malignant myoepithelioma of breast, Carcinoma breast.

ARTICLE DETAILS

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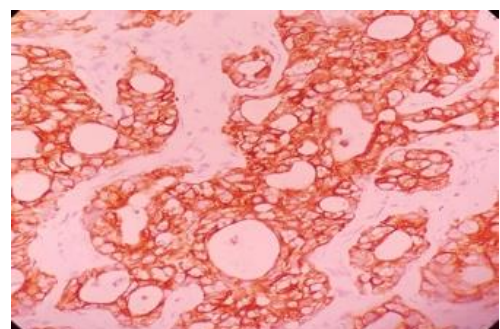
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INTRODUCTION

Myoepithelial cells of the breast are present as an intervening layer in the normal mammary glandular structures, located between the epithelial cells and the basement membrane of the secretory elements of the mammary duct system with a significant role in development and physiology of mammary gland⁽¹⁾. Myoepithelial cells have the characteristics of both epithelial and smooth muscle cells⁽²⁾. Myoepitheliomas are tumors that arise from myoepithelial cells and show both epithelial and smooth muscle cell characteristics but lack ductal differentiation⁽³⁾. Pure myoepithelial neoplasms of the breast are extremely uncommon and reports are limited to case studies⁽⁴⁾. According to the World Health Organization, myoepithelial lesions are composed of a pure or dominant population of myoepithelial cells. Myoepithelial lesions of the breast encompass myoepithelial hyperplasia, collagenous spherulosis, and myoepithelial carcinoma (malignant myoepithelioma). Most of these reports contain only the pathology outlines and diagnosis. Myoepithelial carcinomas are treated mainly by wide surgical excision, lymph node dissection, and adjuvant radiotherapy⁽⁵⁾. There are very limited reports mentioning about the usage of chemotherapy and different regimens.

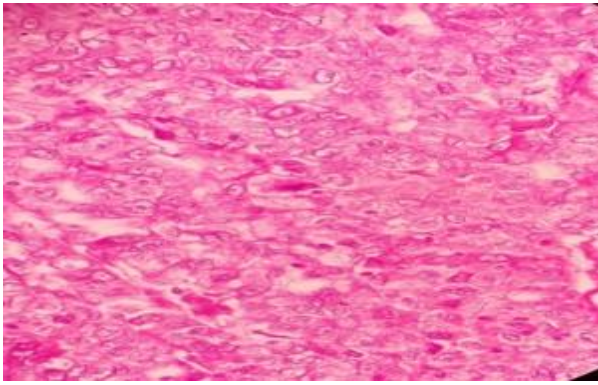
A CASE REPORT

A 42 year old female patient presented at an outside centre with complaints of pain in left breast. Patient was advised sonomammogram which showed lobulated inhomogenous hypoechoic tumor with smooth margins and multiple cystic areas within the tumor involving all quadrants of breast with size of 13.31X8.83X12.04cm. Vascularity was noted within the solid areas and was reported as probability of Phylloides tumor at an outside center. Patient underwent simple mastectomy and came to our institution for further treatment. Post op slide review showed Myoepithelial carcinoma which showed diffuse sheets of cells of epithelial origin and Pan CK, CD 10 positive on IHC

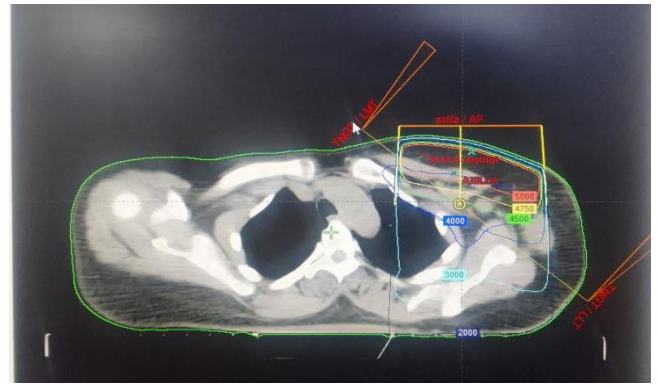


Picture 1: Pan Ck Positive

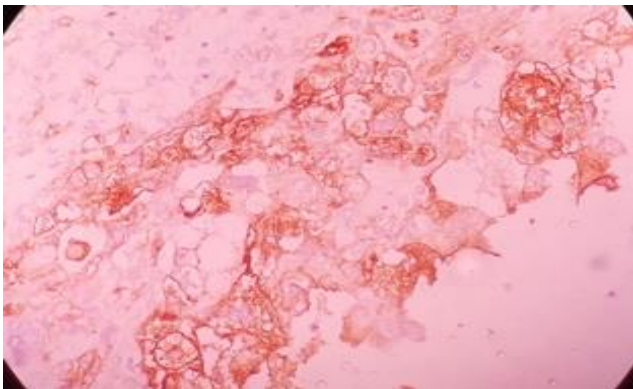
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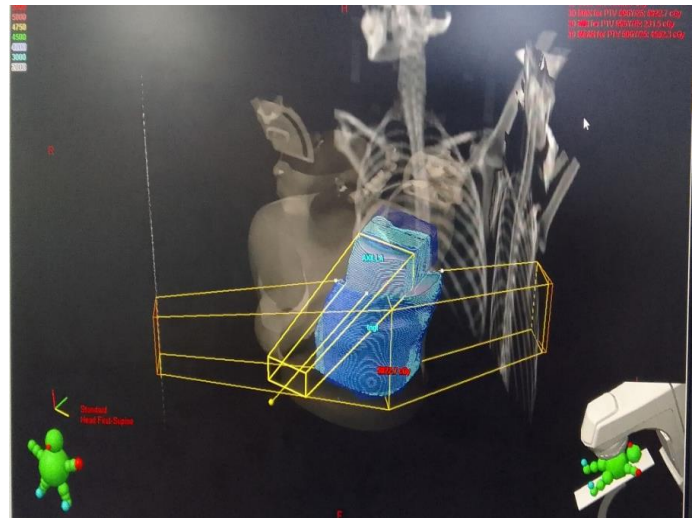
Picture 2: H & E staining showing sheets of epithelial cells



Picture 3 : Rt Planning With Medial And Lateral Tangents For Chestwall Irradiation And Ap Field For Axillary Irradiation



Picture 3 : Cd 10 Positive



Picture 4 : Beams Eye View Of The 3dcrT Planning

TREATMENT DETAILS

Patient underwent simple mastectomy in an outside hospital and followed by which second opinion of the post op histology slides was one which was suggestive of high grade epithelial neoplasm with a differential diagnosis of ductal carcinoma of high grade and myoepithelial carcinoma . IHC was done which was CD 10 positive, Pan CK positive, GATA3 negative , hmb45 negative , Melan A negative , S 100 negative , ER/PR negative and Her 2 negative .

Following this PET CT imaging was done which was showed diffuse skin thickening in the left chest , significant subcutaneous standing and multiple ill defined nodularities with heterogeneous FDG uptake seen in almost entire left upper inner quadrant (Max SUV 6.5) . There were few axillary lymph nodes with preserved morphology was noted with no significant FDG uptake

She was then planned for adjuvant radiation therapy 50 Gy in 25 fractions by 3DCRT to the chest wall and axilla as there was no axillary dissection done

Following the completion of radiation therapy , she was planned foradjuvant Chemotherapy with four cycles of Adriamycin 60 mg/m² with Cyclophosphamide 600mg/m² followed by four cycles of Paclitaxel 75mg/m². She tolerated the treatment with minimal toxicities and on follow up for almost 16 months with no signs of recurrence.

DISCUSSION

Myoepithelial carcinomas of the breast are a rare entity with very limited published reports. The knowledge of the biological behavior is little known. Myoepithelial carcinoma of the breast are usually treated with wide surgical resection along with adequate lymph node dissection followed by adjuvant radiation therapy . Breast conservative surgeries is also an option but there is an increased risk of recurrence if adjuvant radiation therapy is not delivered followed by the surgery. The role of chemotherapy nor the drug regimen is defined in any studies. A chemotherapy regimen was chosen with broad activity that is used frequently for treatment of carcinoma of unknown primary origin. The patient received 6 cycles of a combination of carboplatin (area under the curve = 6), 200 mg/m² paclitaxel, given every 3 Weeks. This regimen was used previously for only one case who achieved

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a durable pathological complete response to chemotherapy too⁽⁵⁾.

CONCLUSION

Myoepithelial carcinomas of breast are a very rare entity with difficulty in diagnosis due to its varied morphological characteristics. There is need for establishment of standard criteria in treatment as well as categorization of the disease. Due to its probable propensity of local recurrence , aggressive treatment with multimodality approach is required for the treatment of the disease.

ABBREVIATIONS

3DRT– 3 dimensional conformal radiation therapy ; PET CT -- Positron Emission Tomography and Computed Tomography

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