ORIGINAL RESEARCH PAPER
Volume-8 | Issue-8 | August - 2019 | PRINT ISSN No. 2277 - 8179
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A RARE CASE OF BENIGN BREAST MYOEPITHELIOMA- CASE REPORT

General Surgery

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ABSTRACT

Breast myoepithelioma is a rare condition and is sparely reported in literature. Breast myoepithelioma can occur in women aged between early 20's to late 80's.Incidence of benign breast myoepithelioma is 1-1.5%. Malignant transformation of this condition is even more rarely reported. Here we report a case of 27-year female who presented with 6 months history of lump over left breast . USG and FNAC showed possibility of a malignant condition probably phyllodes, but it was not confirmatory. Excision biopsy was done to confirm the diagnosis and also to prevent unnecessary mastectomy. Histopathological examination showed ill-defined proliferation of spindle cells in short whorls and irregular single cells and a differential diagnosis of myoepithelioma/leiomyoma/nodular fasciitis was made. Immunohistochemistry was performed which showed positivity for smooth muscle actin and CD10 and final diagnosis of benign breast myoepithelioma was made. This case is reported for its rare location in breast which requires prompt diagnosis and appropriate treatment to prevent local recurrence.

KEYWORDS

Breast myoepitheioma, histopathology, immunohistochemistry

INTRODUCTION

Salivary gland like tumour of breast with pure myoepithelial cell differentiation are rarely documented. Myoepithelioma of breast can vary from benign to malignant variety. The presentation of lesion can make it difficult to diagnose in the initial period and a combined evaluation of histopathological examination and immunohist ochemistry is required for the diagnosis. The treatment varies from excision of the tumour for benign lesion and to simple mastectomy with axillary dissection for malignant myoepithelioma.

CASE REPORT

27 year old female came with complaints of left breast lump for 6 months duration involving lower outer quadrant which was insidious in onset , gradually progressive , not associated with pain or any discharge.

Local examination revealed a lump of 3x2cm present in left lower outer quadrant, well-defined, hard inconsistency, moves with breast tissue and with overlying skin pinchable. Bilateral axillary lymph nodes not palpable. Right breast was found to be normal.

USG Breast showed irregular mass at 6'O clock position probably phyllodes.

CT Chest showed a soft tissue density lesion of size 2.9x1.2cm noted in left anterior chest wall with minimal invasion into underlying muscle.

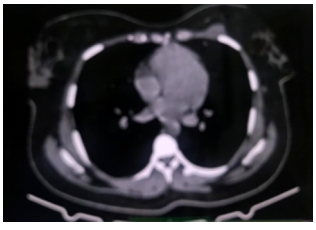


Figure1 soft tissue density lesion of size 2.9x1.2cm noted in left anterior chest wall with mild invasion into underlying muscle.

USG Guided Biopsy showed predominantly cellular stromal components with spindle to oval cells and few cells depicting mild atypia and scattered cohesive clusters of ductal epithelial cells with minimal atypia in a background containing RBC's.

Patient underwent excision biopsy and specimen was sent to histopathology.

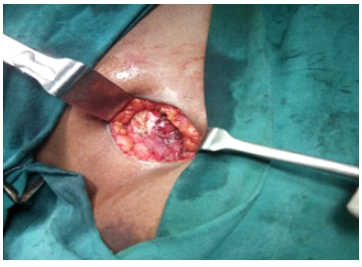


Figure 2 Intraoperative tumour specimen

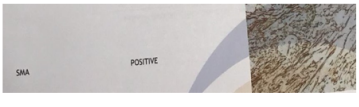
Histopathology

Showed ill-defined proliferation of spindle cells in short whorls and irregular single cells. Occasional foci of hypocellular regions along with thin walled blood vessels proliferations are also seen. Nuclei are variable. Occasional foci show extension into musclefibres.

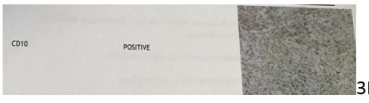
Differential diagnosis was made as followed:
Myoepihelioma/leiomyoma/nodular fascitis.

Immunohistochemistry

Tumour was found to be immunopositive for smooth muscle actin and CD10 and hence final diagnosis of benign myoepithelioma of breast was made.



3A



3B

Figure 3A -immunopositivity for smooth muscle actin 3B- positive CD10.

DISCUSSION

Pure myoepithelioma of a breast is a rare salivary gland like tumour

that occurs with myoepithelial cell differentiation. These tumours are more common in parotid, submandibular and other minor salivary glands but its presentation in breast is rarely documented. Majority of myoepithelioma are of benign nature and malignancy is rarely documented. The differential diagnosis may be challenging and may require combined evaluation of histopathological and immunop ositivity for its diagnosis. [10,11]

Benign breast myoepithelioma is more common in age group of early 20's. The myoepithelial cells containing myofilaments in their cytoplasm show contractility, they support the parenchyma and contribute to the production of laminin, collagen type-IV and fibronectin to maintain the basal lamina. The presence of spindle cells, plasmacytoid, epitheloid, clear cells or combination of the above determines the histological classification of the tumour accordingly.[9] Myoepithelioma are slowly growing, encapsulated and well-defined lump. A number of tumour are benign character and malignancy is rarely documented which will enumerate features of rough chromatin, high mitotic index, necrosis &cellular pleomorphism. Pure myoepithelioma should be differentiated from spindle cell carcinoma by identification of epithelial lined luminal spaces.[1,6,7]

The diagnosis of pure myoepithelioma may be difficult with light microscopy and may require electron microscopy for its diagnosis. In our present case, given the three differential diagnosis,the final diagnosis was made based on immunohistochemistry. Histopathology will reveal predominantly of spindle cells arrangement.[2,3,6,7,9] Myoepithelial cells shows Immunopositivity for smooth muscle actin,p63,calponin and caldesmon.[5,8]

Once diagnosed the treatment is complete surgical removal of the tumour which will prevent the future local recurrence.[4,5]

Benign myoepithelioma can undergo malignant transformation if not properly diagnosed and treated or even with multiple recurrences. Malignant myoepithelioma requires simple mastectomy and axillary node dissection.

CONCLUSION

Breast myoepithelioma are extremely rare which presents as a diagnostic difficulty. It is also advisable to go as a systematic approach to treating the condition by doing excision biopsy at first in order to prevent unnecessary mastectomy.

Hence proper clinical, pathological and immunohistochemistry correlation is required for early diagnosis of this condition and prompt treatment for preventing complications.

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