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Benign Lesion of Male Breast: A Rare Case Report

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ABSTRACT

We report a case of Spindle Cell Tumour of the breast in a 58-year-old man who presented with a palpable mass in his right breast. Breast ultrasonography revealed a hypoechoic well-demarcated ovoid mass. The patient underwent excisional biopsy. Pathological findings were consistent with a rare diagnosis of spindle cell lesion of the breast. The final Immunohistochemistry report indicated myofibroblastoma, a rare Spindle cell tumour of Breast.

Key Words- Male Breast Tumour, Benign, Spindle cell lesion of Breast, Myofibroblastoma (MFB), IHC (Immunohistochemistry)

INTRODUCTION

Myofibroblastoma, this term was first coined in 1987 by Wargotz et al., who described it as a tumour with distinct clinicopathologic entity. [(1,5)] MFB is a rare, benign spindle cell tumour of the breast. [(3)] The first case of benign spindle cell stromal tumour of breast was reported by Toker et al, in 1981, who described, that its morphological features were similar to spindle cell lipoma of soft tissue. [(5)] MFB is most commonly found in breast but it can be present at extramammary sites like liver, inguinal canal, posterior vaginal wall, buttocks, groin or scrotum. [(6)]

Microscopically, MFB is comprising of neoplastic cells and shows a variable Myofibroblastic differentiation at morphologic, immunohistochemical, and ultrastructural levels. It is typically a bland-looking spindle cell tumour exhibiting expression of vimentin, desmin, and CD34 in most cases. [(5)]

CASE REPORT

A 58years old male presented with a lump in upper outer quadrant of right breast for 5 months. There was no history of swelling in axillary region. No complaints of loss of appetite or weight loss. There was no history of pain, nipple discharge or existence of familial breast cancer.

On Examination- A lump in right upper quadrant of right breast measured about 3cm in diameter. No scar mark, dilated or torturous veins were present over the swelling. There was no skin erythema, nipple retraction or nipple discharge. On palpation no supraclavicular lymphadenopathy was noted.

The lump was hard in consistency; non-tender, freely mobile and the borders were well defined. It was not fixed to the overlying skin.

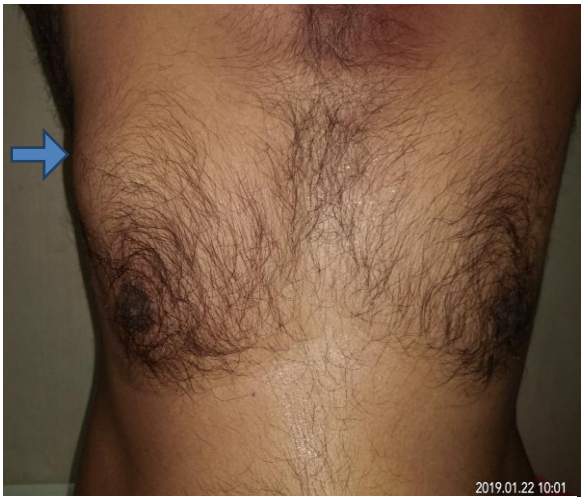

Fig.1-Grossly visible breast mass in right upper quadrant (right breast).

Radiology and Cytological findings-
Ultrasonography (USG) Breast showed a 1.8x 3.2x 3.2 cm sized well defined lobulated hypoechoic lesion in the right breast at 9 to 11 O' clock position which appeared to be wider with no specks of calcification. The lesion showed arterial waveform within the tumour on colour doppler study.
An impression of malignant etiology was given on sonography and fine-needle aspiration cytology (FNAC) or excisional biopsy was advised for further evaluation.

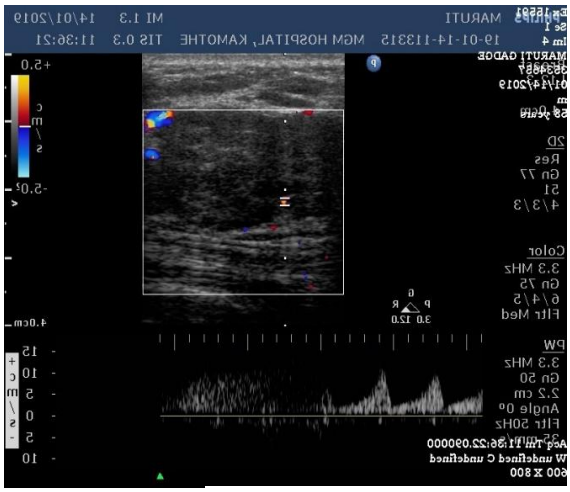

Fig. 2a

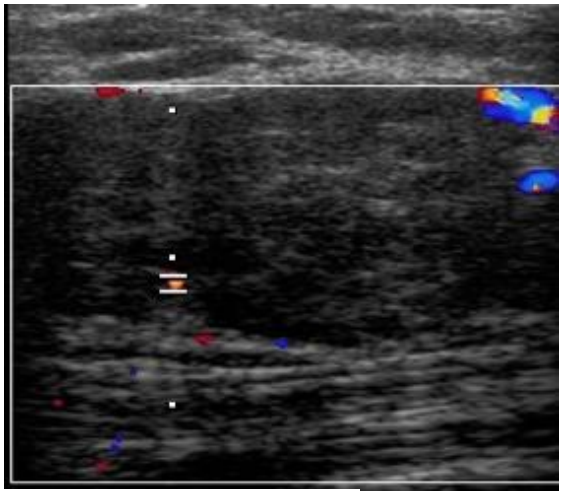

Fig. 2b

Fig. 2a & 2b:USG images of breast showing arterial waveform and hypoechoic lesion.

Pet scan report of patient showed-Hypermetabolic nodule suggestive of primary malignancy. However, nodal micro-metastases cannot be excluded.
FNAC of the breast lesion was not contributory in-spite of multiple attempts.
The patient underwent right breast modified radical mastectomy and the specimen was sent to histopathology department.
Gross Findings -The tumour was oval, well-circumscribed, firm, rubbery, encapsulated mass. Cut surface revealed a solid lesion, with a smooth external surface, pale white to greyish, with a variable whorling appearance. Areas of haemorrhage were also noted. The cut surface of tumour showed focal to extensive mucoid- or lipomatous-appearing areas. No Cystic degeneration, necrosis, and haemorrhage were identified on gross examination.
Microscopic examination images-

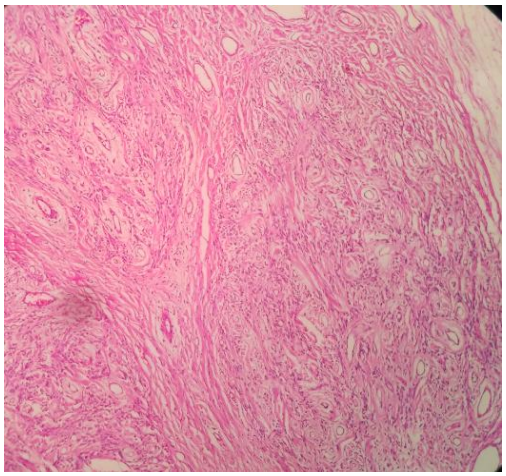

Fig. 3 (40x)

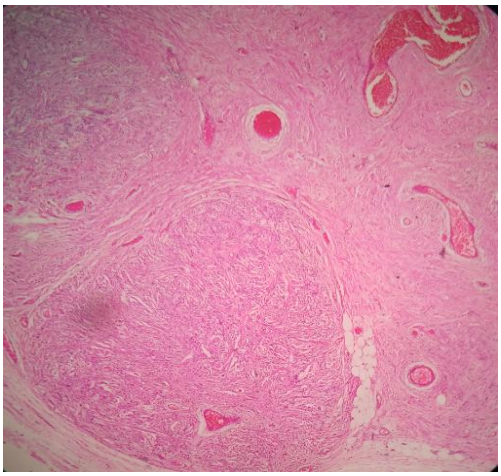

Fig. 4 (10x)

Figure 3- Shows neoplastic cells are arranged in nests surrounded by thick, eosinophilic collagen bundles
Figure 4- Shows stromal fibroblast cells within pseudocapsule.

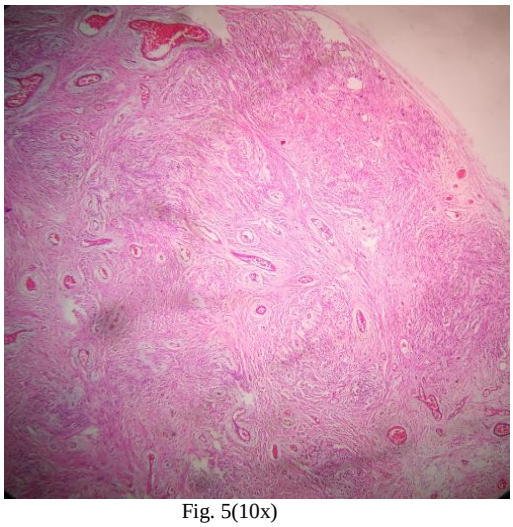

Fig. 5(10x)

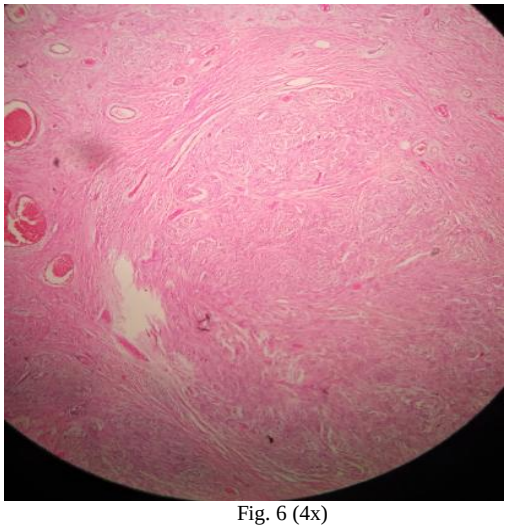

Fig. 6 (4x)

Figure 5- Shows spindle cells in short fascicles and whorls.

Figure 6 Shows Myofibroblastoma, collagenized/fibrous variant. Hypocellular tumor with a densely hyalinized stroma and thick, eosinophilic collagen fibers. Artefactual slitlike spaces are seen.

Immunohistochemistry-tumour cells were strongly positive for CD34 and focal positivity for desmin. SMA, S100 and AE1/AE3 were negative.

Diagnosis-Myofibroblastoma

DISCUSSION

Myofibroblastoma is a rare, benign, mesenchymal/spindle cell tumour derived from stromal fibroblasts most commonly found within the breast parenchyma. [(4)] Clinically, mammary Myofibroblastoma tends to be present as a unilateral, firm, mobile, painless mass that may demonstrate slow, steady growth over a period of months to years. An association with gynaecomastia is also seen. [(4)] For Myofibroblastoma, Imaging techniques are non-specific. These masses are termed as Myofibroblastoma because they are considered to be fibroblastic cells that show smooth muscle differentiation since they express Desmin and Actin (smooth muscle markers) [(7)]

Early detection of even small sized tumours is possible nowadays due to recent advance in technology like screening mammography. However, men, can present with a palpable mass where screening mammography is not routinely performed. [(7)]

CONCLUSION

As the imaging studies in MFB are nonspecific hence, a histopathological examination is necessary. [(4)] MFB is a benign condition and surgery is the main line of treatment with good prognostic values. [(4,7)] Local recurrence is not a feature of MFB. [(3)] Malignancy is associated with chromosome 13q14 deletion. [(4)] IHC plays a major role in making correct diagnosis. However, Spindle Cell Tumours (MFB) should be kept in mind a differential for well circumscribed, slow growing lesions of breast, even in males also.

ACKNOWLEDGMENT

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