SYNCHRONOUS OCCURRENCE OF BORDERLINE PHYLLODES TUMOR WITHFIBROADENOMA

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INTRODUCTION: Phyllodes tumours (PTs) and fibroadenomas (FAs) are fibroepithelial lesions (FELs) of the breast[2]. Phyllodes tumours range in their spectrum of behaviour from benign to overtly malignant and account for less than 0.5% of breast cancers.[1] A fibroadenoma is a painless, unilateral, benign (non- cancerous) breast tumour that is a solid, not fluid-filled, lump. It comprises both epithelial and stromal tissues located under the skin of the breast[3]

Figure 1:Spindle shaped cells forming leaf like proliferation (H&E 100X)

CASE DISCUSSION: This is a case of a 22-year-old female who presented with lumps in both the breasts. On examination; masses in both the breast were freely mobile and firm in consistency. All haematological investigations were within normal limits. USG showed benign masses in both the breasts. Excision of masses from both the breasts was done.

❑Gross**:** Specimen 1(Right breast)-Single piece of grey-brown lobulated mass of tissue measuring 6x4x2cms received. Cut section-grey-white to grey-brown areas noted with gelatinous grey-white leaf like areas

Specimen 2(Left Breast)-Two pieces of grey-white to grey-brown tissue, larger measuring 1.5x0.5x0.1cms, smaller measuring 1x0.5x0.2cms received .Cut section-grey-white lobulated areas noted.

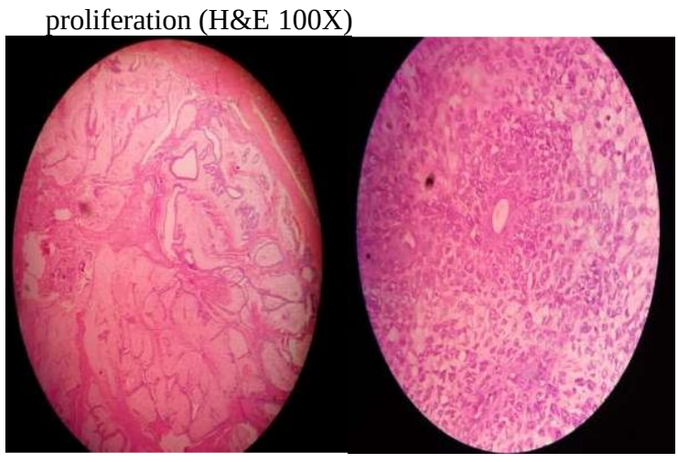

Figure 2&3:Spindle-ovoid cells with mild-moderate hyperchromatic nucleus, tiny nucleoli and scant cytoplasm (H&E 100X&400X)

❑Microscopy: Sections from the right breast showed tumour and adjoining breast tissue. Tumour is moderately cellular and shows proliferation of spindle shaped cells around the ducts forming leaf like proliferation at places(Figure 1). These cells show mild- moderate pleomorphism . Individual cells are spindle to ovoid and show mild-moderate hyperchromatic nucleus and some show tiny nucleoli and scant cytoplasm(Figure 2&3). No areas of haemorrhage or necrosis are seen. Occasional mitotic figures(4-5/10 HPF) noted. Diagnosis of Boderline Phyllodes was made. IHC for P53 was done and was positive and P63 was done which highlighted the myoepithelial cells(Figures 5&6) .Section from left breast shows features of fibroadenoma showing both intra and pericanalicular pattern(Figure 4).

DISCUSSION: Phyllodes tumours (PTs) usually present as firm mobile masses without skin or nipple involvement. PTs most commonly present in 35–55 year-old women as painless unilateral masses ranging from <1 to 40 cm in size. The borderline tumours have:1) more stromal cellularity and atypia,2) lack stromal overgrowth,3) microscopic infiltrative borders,4) between 4-9 mitosis per 10 high power fields.[1]

❑Fibroadenomas are common, benign tumours made up of both glandular and stromal tissue. It is a well-circumscribed lesion with pushing borders that does not infiltrate the adjacent breast parenchyma. They are characterized by a cellular proliferation of stroma and glands .The ratio between stroma to glands is relatively constant throughout the entire lesion. The stroma is uniform, hypovascular, and composed of spindle-shaped cells with bland oval to elongated nuclei. There is no stromal cell pleomorphism present[3].

In our case a 22-year-old female presented with lumps in both the breasts. Although the synchronous occurrence of phyllodes and fibroadenoma is not rare, to the best of our knowledge our literature search revealed very few case reports.

Figure 4:Fibroadenoma showing intra and pericanlicular patterns (H&E 100X)

Figure 5:Positivity for p53

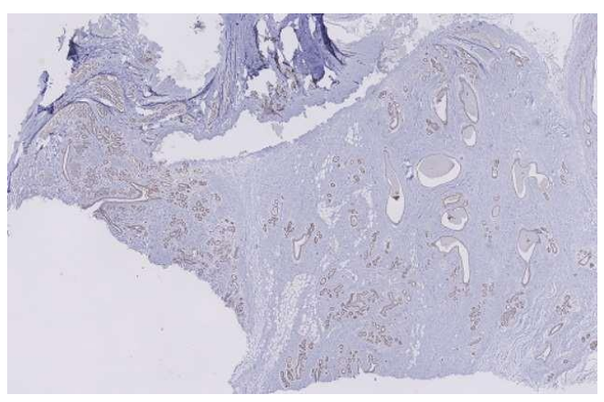

Figure 6:Positivity for p63

CONCLUSION:PTs are similar to fibroadenomas from a clinical, radiographic, and histologic standpoint, making diagnosis challenging. The distinction has important implications as PTs have a higher risk of recurrence and occasionally metastasis[1]. To the best of our knowledge very few reports have been documented .The prognosis of borderline phyllodes tumours is good with adequate surgical excision. Fibroadenomas need surgical removal if it is massive and continues to grow in size, otherwise it is left untreated.

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