BORDERLINE PHYLLODES TUMOUR

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Abstract

We report a case of 40 years old women with a painful lump in left breast. Mammography revealed a suspicious mass ACR BIRADS category 4a. Excision biopsy revealed borderline phyllodes tumour. Our case highlights the significance of multidisciplinary approach in managing benign breast masses like phyllodes tumours which have malignant potential and a high rate of recurrence.

Keywords: Phyllodes breast tumour, mammography, breast ultrasound

Introduction:
Phyllodes of breast are rare fibroepithelial neoplasms and accounts for <1% of breast tumours.1 Accurate preoperative radiological and pathological diagnosis allows better surgical planning and avoiding unnecessary reoperation. The role of imaging is important in diagnosis and management of phyllodes tumour.

Case Report:
A 40 year old premenopausal woman presented in a surgical department with acute onset of redness, pain and lump in left breast. She underwent incision and drainage and specimen / aspirate was submitted for cytology and culture sensitivity. Gram positive cocci were isolated and she was treated with antibiotic therapy. Few weeks later, she presented to a recurrent left breast lump rapidly increasing in size. On clinical examination a fleshy growth with a grape like appearance was seen with the nipple in the upper and inner quadrant of left breast (Fig. 1). Mammogram (Fig. 2 and 3) showed asymmetry in left breast with ill-defined radio opaque mass, attached with nipple, protruding on skin.

Ultrasoundography (Fig.4 and 5) demonstrated a 2.5cm multi-lobulated oval shaped heterogeneous solid mass in retro areolar region extending medially at 9 O'clock position. Increased vascularity was seen within the mass on colour Doppler ultrasonography (Fig. 4). Excision Biopsy was done and histopathology revealed a fibroepithelial tumour of breast i.e. stromal hypercellularity with bundles and fascicles of oval to spindle cells, mild to moderate atypia and 6-7 mitosis/10HPFs, suggesting borderline phyllodes tumour. (Fig.6) Patient was referred back to department of surgery for reassessment for surgery.

Discussion:
Phyllodes tumour was first described in 1838 by Müller as cystosarcoma phyllodes. Later in 1981, World Health Organisation renamed it as phyllodes and subdivided histologically into benign, borderline and malignant types2. Phyllodes tumour has a high recurrence rate of 10% – 40%3. These tumours are difficult to diagnose clinically, a triple assessment protocol needs to be adopted for timely identification4. Careful analysis of radiological features may help in distinguishing from other benign entities such as fibroadenoma, breast abscess and mastitis. Mammography alone is not useful with features as mass, calcifications (macro or micro), combination of both or focal asymmetrical density. Ultrasound images reveal a solid mass with heterogeneous internal echoes without posterior acoustic attenuation. A diagnosis of phyllodes should be considered if sonography reveals fluid filled elongated spaces or clefts within the mass that represent focal necrosis or degeneration5,6,7. Management of fibroadenomas or benign conditions
may be safely done without further investigation. An excisional biopsy or simple enucleation is sufficient. In contrast, phyllodes tumours are progressive lesions that cannot be followed conservatively; wide excision with adequate margins is mandatory which can be preventive and curative as well. Early and periodic follow up with 6 monthly sonographic examinations up to 2 years are recommended after surgery.

Conclusion:
This case highlights that a multidisciplinary approach is essential to distinguish phyllodes from other benign lesions. Clinical findings should be correlated with radiological features for characterization and presurgical planning.

Fig. 1: A fleshy growth protruding on skin

Fig. 2 Mediolateral Oblique (MLO) view; asymmetrical radio opacity in left retroaerolar region (arrow)

Fig. 3 Craniocaudal (CC) view; ill defined radio opaque mass in left retroaerolar region, protruding on skin (arrow)

Fig. 4 Ultrasound (US); heterogeneous solid mass (25 x 22mm) with lobulations, attached with skin

Fig. 5 Colour Doppler Ultrasound shows vascularity within the mass.
Fig. 6: Excision Biopsy of left breast lump showed ductal and stromal hypercellularity with bundles and fascicles of oval to spindly cells with cellular atypia and mitosis

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