CASE REPORT PEER REVIEWED | OPEN ACCESS

Phyllodes tumor: A report of an unusual presentation

Olaniyi S. Olayinka, Tajudeen A. Wahab

ABSTRACT

Introduction: Phyllodes tumor is a rare breast fibroepithelial tumor that usually present with a palpable lump or picked up on a routine imaging. We report an unusual fungating lesion with a diagnostic challenge. Case Report: In this report, we presented a case of a 45-year-old female with ulcerating breast lesion characteristic of locally advanced breast cancer. Multiple preoperative biopsy report of fibroadenomas was at variance with clinical suspicion. Final histology was reported as low grade phyllodes. Conclusion: An unusual presentation of a benign breast lesion could pose a diagnostic challenge. A high index of suspicion is therefore required in the approach to diagnosis and management.

Keywords: Breast, Diagnosis, Phyllodes tumor, Treatment

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INTRODUCTION

Phyllodes tumors are rare fibro-epithelial tumors of the breast characterized by a heterogeneous group of biphasic neoplasms, consisting of a proliferation of both epithelial and stromal components [1]. Classically, it consists of a double layered epithelial component arranged in clefts, and surrounded by hypercellular stroma typically arranged in leaf-like structures. Phyllodes tumors are typically benign but the pattern may vary from benign to borderline and malignant varieties based on the histological parameters such as the degree of stromal cellularity and atypia, mitotic count, stromal overgrowths and pushing/infiltrative borders [1]. At the benign end of the spectrum, it may resemble intracanaliculi fibroadenoma and may pose a diagnostic challenge on core biopsy but it can be distinguished from cellular fibroadenoma by the characteristic intracanalicular pattern with leaf-like fronds protruding into cystically dilated spaces accompanied by stromal hypercellularity [2]. Benign phyllodes tumors show mildly increased stromal cellularity and mitoses count of less than 4/10 high power fields (HPF). Malignant phyllodes tumor is diagnosed by an admixture of diffuse and marked stromal cellularity, increased mitosis (10 per 10 HPF), and infiltrative borders [1, 2]. Borderline phyllodes tumor, however, is diagnosed when there is moderate stromal cellularity, well-defined borders and mitotic activity between 5 and 9 per 10 HPF. The diagnosis and grading of phyllodes tumor, both critical for treatment planning, can be very problematic on core biopsy because of the overlapping morphology [3, 4]. We reported an unusual presentation of this tumor in a 45-year-old female to highlight the initial difficulties of making a diagnosis.

CASE REPORT

A 45-year-old female presented at a North London district general hospital with twelve-month history of painless right breast lump that got progressively bigger and started ulcerating two months prior to presentation. There was foul odour with bloody discharge from the ulcer. She had family history of breast cancer. Examination revealed a huge 25x25 cm ulcerating lesion, completely replacing the breast tissue and destroyed the nipple-areolar complex. The fungating ulcer measured about 12 cm in diameter with nodular base and everted edges with a complete destruction the nipple-areola complex (Figures 1 and 2). There were suspicious axillary lymphadenopathies.

A clinical diagnosis of locally advanced fungating breast cancer was made. The initial core biopsy was reported as fibroadenoma. This warranted a repeat wedge biopsy, which again was reported as either giant fibroadenoma or possible phyllodes tumor. Simple mastectomy was recommended at the breast multidisciplinary team (MDT). Intraoperative frozen section established benign phyllodes tumor which was confirmed on final histology. Postoperative recovery was uneventful.

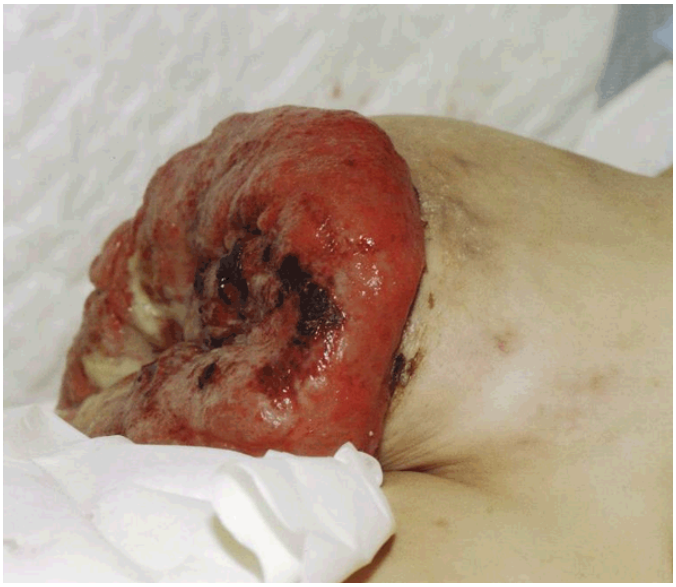

Figure 1: Medio-lateral view of a fungating phyllodes tumor.

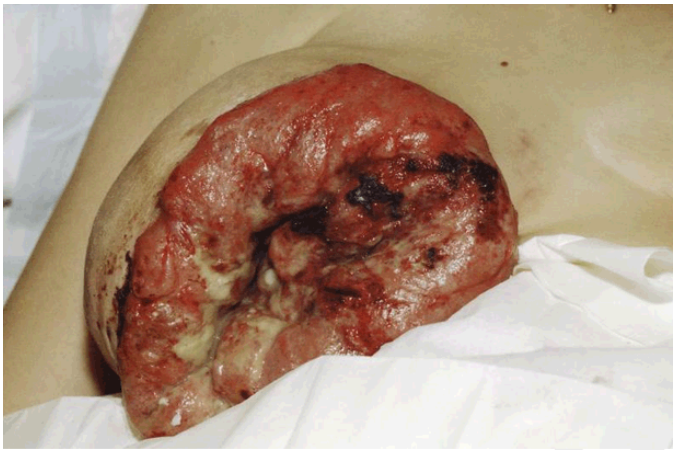

Figure 2: Posterioranterior view of the fungating phyllodes tumor.

DISCUSSION

Phyllodes tumors are rare a variant of fibroepithelial lesions representing about 0.3–1% of all breast tumors and commonly presents between 40 and 50 years of age but may also occur at a younger age [1, 5, 6]. Patients commonly present with painless, firm breast lump which may vary widely in size. Very rarely, it may ulcerate through the skin due to pressure necrosis. However, a fungating lesion showing features characteristic of malignant ulcer is a rare occurrence and poses a diagnostic challenge. Our patient had two preoperative biopsies including a wedge biopsy from the ulcerating lesion. Both of these biopsies were reported as fibroadenoma or benign phyllodes tumor highlighting the challenges of evaluating fibroepithelial lesions.

Most phyllodes tumor presents in a benign fashion but has a tendency to recur. In the study of 165 patients by Guillet et al, histologic examination showed 114 benign (69%), 37 borderline (22%) and 14 malignant tumors (9%) [5].

Treatment is mainly by surgical excision with adequate margins. Wide excision with negative margins is the treatment of choice for benign and borderline phyllodes tumor while simple mastectomy may be reserved for the malignant variety [3, 5]. In certain situations, mastectomy and breast reconstruction may be the only reasonable option for large benign phyllodes tumors which has completely replaced normal breast tissue [7, 8]. Overall recurrence rate following wide excision varies from 3.4–13.2% [5, 9, 10]. This tends to occur locally, more common with benign phyllodes tumor and is directly related to the grade of the phyllodes tumor and resection margins. This emphasizes the need for adequate surgical margins to reduce local recurrence rate.

Kim et al. [9], however, reported very low rate of local recurrence for benign phyllodes tumor regardless of surgical margin status even when treated with enucleation. They also noted that recurrence following benign phyllodes tumor did not have any worse histologic grade than the original. In a retrospective review of 44 patients, Teo et al. [11] reported no recurrence rate for benign phyllodes tumor after a mean follow-up of 47.6 months, although these were mostly young patients under 25 years of age. Both Kim et al. and Teo et al. suggested that patients with positive margins may safely be managed by close follow-up. This however does not appear to be a standard treatment as most institutions including ours would recommend further excision for patients with involved margin.

CONCLUSION

In conclusion, phyllodes tumor even when benign can mimic a malignant breast tumor especially if it ulcerates the overlying skin. It can also fungate causing a diagnostic challenge as highlighted in this report.

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Author Contributions

Olaniyi S. Olayinka – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
Tajudeen A. Wahab – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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