

Giant Malignant Phyllodes Tumor at a Tertiary Care Hospital of Karachi, Pakistan

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ABSTRACT

Phyllodes tumor is a rare benign breast cancer that carries malignant potential. Malignant phyllodes tumors are histologically sarcomas as they originate from the connective tissue of the breast. We present a case of a 38 year old female who presented with complaints of a slow

growing painful lump in her left breast over for one and a half year that later ruptured and became necrotic. She was operated upon with a provisional diagnosis of a fungating breast growth; however, subsequent histopathology report confirmed the tissue as a malignant phyllodes tumor.

Keywords: Malignant phyllodes tumor; Surgery; Prognosis; Breast malignancy

INTRODUCTION

Phyllodes tumors are rare breast tumors accounting for <1% of all breast malignancies [1]. Most of these tumors are benign, but some have a malignant potential. These tumors commonly occur in females during the 4th or 5th decade of life. Patient usually presents with smooth breast lump felt beneath the skin. The breast may become red and warm to touch. These tumors can grow rapidly and the associated symptoms can mimic other types of breast carcinoma, particularly if the mass ulcerates and bleeds. Histopathologically, these tumors are characterized by increased cellularity, enhanced stromal proliferation, intra-canalicular growth (leaf like pattern) and the presence of increased mitotic figures. The only treatment option for these tumors is surgical removal [2, 3].

In this case report, we present a case of a giant malignant phyllodes tumor in a 38 years old young female.

CASE REPORT

A 38 years old unmarried female presented with a gradually increasing mass in the left breast for one and a half year and bleeding from the ulcerated mass for one and a half months. She had felt a small mass in her left breast that grew in size gradually, until the difference in the size of her breasts became very evident. Three months prior to her presentation, patient noted clear watery discharge from her breast that later

became foul smelling. After a month and a half, the mass ruptured and started bleeding. The mass kept bleeding intermittently and became painful for which patient took analgesics and did not contact a physician for her symptoms. When the symptoms became unbearable to her, she presented at our hospital.

On presentation, she was alert, conscious and her vital signs were stable. On breast examination, entire left breast was occupied with a huge ulcerating mass (>20cm in diameter) with areas of necrosis at various places. Moreover, the mass was profusely bleeding from different points. There was no axillary lymphadenopathy and no other masses were palpable. Her baseline hemoglobin was 6g/dl and hematocrit 26, while other investigations were within normal limits. As most of the breast was necrotic and actively bleeding, fine needle aspiration biopsy and Tru-Cut biopsy were not performed. Examination of the fluid discharge showed Staphylococcus aureus growth and presence of necrotic cells. Patient received blood transfusion pre-operatively and underwent total mastectomy with axillary sampling, but without axillary clearance. Resected breast tissue measured ~ 20.5 x 17 x 10.9 cm in dimensions (Figure 1A-D). The cut surface of the tumor showed yellowish brown fatty upper half and dark brown hemorrhagic lower half. Several nodular circumscribed masses (measuring ~15 x 10 cm each) were observed. Microscopically, fragments of breast tissue and several circumscribed nodular masses consistent with fibroadenomatous changes (Figure 2A-D)

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were seen. Areas of necrosis, hemorrhage and thrombosis were also evident. Moreover, stromal and epithelial proliferation with increased mitosis was observed. Leaf pattern epithelial component of the tumor growth was also observed (Figure 2A). The overlying skin did not show any remarkable changes. Axillary lymph node examination showed features of reactive hyperplasia with no other remarkable finding. A final histological diagnosis of malignant phyllodes tumor was made. Patient had uneventful recovery and she was free of recurrence one year after surgery.

DISCUSSION

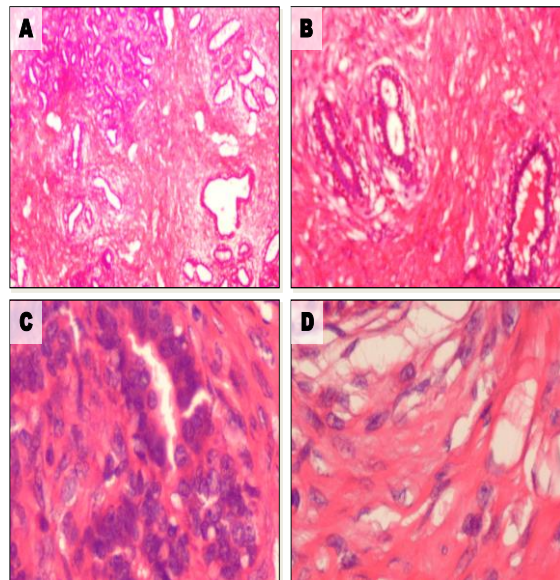
Phyllodes tumors are usually solid lumps that are found as an incidental finding during a breast examination. These tumors are usually painless and well circumscribed with an average size of 5 cm. However, lesions measuring more than 30cm have also been reported. While primarily a disease of females, few cases of phyllodes tumor involving male breast have also been reported [4, 5, 6]. Phyllodes tumors can occur at any age with a peak incidence between 30 to 40 years [7]. Etiology of these tumors remains elusive. These tumors tend to involve the left breast more commonly than the right one. These tumors grow radially and compress the surrounding breast parenchyma, thus creating a false capsule, through which phyllodes stroma extends and grow into the rest of healthy mammary tissue. They tend to grow quickly within a period of weeks or months [2, 3]. Overlying skin is usually shiny and translucent enough to reveal underlying veins at its initial presentation [3]. In advanced cases the phyllodes tumor can cause an ulcer or open wound on skin. These tumors represent a character of large malignant sarcoma, taking a leaf like appearance on gross examination and cystic spaces on histological examination [8].

The challenging fact remain its diagnosis, as in most cases it mimic a benign breast condition such as fibroadenoma [2, 3] unless it grows to massive, ulcerative, hemorrhagic and ulcerative lesion. However, increased mitotic activity, cellular atypia, cellular and stromal proliferation remain key diagnostic features of phyllodes tumor, differentiating it from other benign breast disorders. Although malignant potential is very rare, lungs are the most common metastatic site, followed by the skeleton, heart and liver [9]. Core cut biopsy is a reliable investigation for diagnosis but sampling errors do exist and therefore inciso-

Figure 1: A-D, Gross findings of patient's left breast showing a mass with ulcerative, hemorrhagic and necrotic morphology



Figure 2: Histopathological findings of the resected tumour showing leaf like epithelial component of the tumour (A), increased cellular and stromal proliferation at x200 (B) and x400 (C & D) magnification, cellular atypical and increased mitotic figures (C & D)



nal and excisional biopsies are the definitive methods for diagnosing the phyllodes tumor. Mammography and breast ultrasound cannot differentiate phyllodes from other benign breast conditions such as fibroadenomas.

Once diagnosed, the treatment is complete surgical resection; however, the extent of the

resection is controversial, particularly in the borderline and malignant phyllodes tumors as they penetrate in the surrounding normal tissues [10]. For this reason, most surgeons prefer wide local excision that must include the healthy breast tissue. Neoadjuvant and adjuvant therapy has no proven curative and/or palliative role in the management of these tumors. The recurrence rate after surgery is less than 13% and is usually due to the lack of tumor-free margins during surgical resection [11]. After surgery, a close follow-up with frequent breast examinations and imaging tests is usually recommended.

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