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Case Report

# The Rarity of Change from Benign to Malignant Phyllodes Tumor: A Case Report and Review of Literature

**Saeed Abdullah Ahmed Noman***

*Clinical Oncologist, National Oncology Center-Aden, Yemen*

***Corresponding Author:** Saeed Abdullah Ahmed Noman, Specialist of Clinical Oncology and Nuclear Medicine and Director of Radiotherapy Management, National Oncology Center-Aden, Yemen.

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## Abstract

Phyllodes tumors (PTs) of the breast are extremely rare, globally accounting for 0.3% to 1% of breast tumors. Malignant phyllodes tumor is occurring in females usually between the ages of 35 and 55 years. The transformation of a benign phyllodes tumor into a malignant phyllodes tumor is very uncommon and unpredictable. We are reporting a case of a 47-year-old woman transformed from benign phyllodes to malignant after six years from first operation.

***Keywords:*** *Malignant Phyllodes Tumor; Transformation of a Benign Phyllodes*

## Introduction

Phyllodes tumors are rare fibroepithelial breast tumors and are found in approximately 1% of primary breast tumors [1]. Malignant phyllodes tumor is a rare lesion of the breast that can mimic benign masses such as fibroadenomas on clinical diagnosis but is characterized by a typical rapid growth [2]. They usually occur in middle-aged women ranging in age from 35 to 55 years old [3]. Metastatic disease is typically observed in the lung, mediastinum and skeleton [4]. Local recurrences generally develop within 2 to 3 years [5].

## Case Report

A 47years old woman, married, presented with palpated a lump in her left breast on 2014, not associated with pain or fever or axillary lymph nodes enlargement or nipple retraction. Comorbidity is AHT on regular treatment, she had no cancer history in her family. she underwent Lumpectomy, histopathology was borderline phylloides tumor with safety margins. The Recurrence occur at same breast after three years from first operation, she did the second operation with wide excision without axillary clearance, the histopathology result was phylloides benign tumor. On August 2020; CT-Scans result was mass in left breast-round mass 5.6 x 5.6 x 4.6 cm invading pectoralis muscle. Fine Needle Aspiration Cytology was malignant phyllodes tumor, after that she underwent left mastectomy (MRM). Histopathology and Immunohistochemistry (IHC) was malignant phyllodes tumor, IHC results was Vimentin, CD34, C-Kit(cd117), Ki67 > 20% high proliferation index all are positive and SMA, S100, P53 are negative. Ejection Fraction of her heart was 61%, CEA (3.1), CA15.3 (8.9). On September 2020 post operation She had received six cycles of Doxorubicin, ifosfamide with mesna protocol with well tolerance and good response then Radiotherapy 30 fraction. After one year of finish her treatment on September 2021 the evaluation were Brain and chest CT-scans are normal. Unfortunately, at the end of 2021, she complained continues cough. The case was progressed through the routine evaluation Chest CT-scan were appeared bilateral lung metastasis nodules, largest 8 mm and pulmonary deposits. Abdomen and pelvic Ultrasound was normal. Our Patient require Positron Emission Tomography-Computed Tomography scan (PET-CT-scan) for more evaluation but not available in our country. The performance state (PS) is one to two, so we gave her a new protocol, Pazopanib orally 400 mg twice per day started at the time of published this article, then she will require evaluation after three months from using this protocol.

## Discussion

Phyllodes tumor-once more commonly referred to as cystosarcoma phyllodes (from Greek kystis ["sac, bladder"], sarcoma ["fleshy tumor"], and phyllon ["leaf"])-is a rare, predominantly benign tumor that occurs almost exclusively in the female breast [6]. Phyllodes Tumors are rare neoplasms that account for 0.3 - 1% of all breast lesions with an incidence of 2 per 1 million women annually [7].

Phyllodes tumors are uncommon fibroepithelial breast tumors that are capable of a diverse range of biologic behaviors [8]. Phyllodes tumor is the most commonly occurring nonepithelial neoplasm of the breast, though it represents only about 1% of tumors in the breast [9]. Malignant phyllodes tumors may be treated more aggressively, with removal of wider margins of tissue or removal of part or all of the breast (partial or total mastectomy) [10]. Local recurrence usually occurs within the first few years following surgery, especially if it was with incomplete excision [11]. MRI evaluation may be of benefit to evaluate for chest wall invasion in malignant phyllodes tumor [12]. The prognosis for malignant phyllodes tumors is poor [13]. Survival after metastatic disease is poor, with various case series reporting a median survival ranging from 4 to 17 months, with large variability based on the site of the metastatic disease [14]. In our patient, although negative margins were assessed but the recurrence and the transformation were occur.

## Conclusion

Malignant PTs are rare entities with distinct clinicopathological features. These tumors should be accurately recognized and effectively treated at first diagnosis, as they have a high risk of recurrence. Most phyllodes tumors behave benignly, Malignant phyllodes tumors carry a poor prognosis. Our presentation case of a benign phyllodes tumor that transformed into a malignant phyllodes tumor during after the second recurrence and after six years from first of diagnosis.

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