*IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*
*e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 23, Issue 2 Ser. 1 (February. 2024), PP 16-19*
*www.iosrjournals.org*

# Surgical Management Of Borderline Phyllode Tumor Of The Breast: A Case Report

Z. Berjaou, S. Charboub, J. Hafidi, N. Gharib, A. Abbassi And S. Elmazzouz
*Plastic Surgery Department, Ibn Sina Hospital, Mohammed V University, Rabat, Morocco*

***Abstract:***
*Phyllodes tumors, which make up 0.3–1% of all malignancies, are a rare type of fibroepithelial neoplasm that affect the breast. Twelve percent of all Phyllodes tumors fall into the borderline category. Giant borderline phyllode tumor have not been re-ported in many case reports.*
*Here, we present a case of gigantic borderline phyllode tumor, approached with extensive local excision and negative margins were successfully accomplished.*
*The aim of this study is to describe the clinical history, presentation, intraoperative and histological findings of the patient, along with a review of the literature to assess the importance of these results and the therapy strategy.*
***Key Word****: Phyllode tumor, breast, borderline*

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Date of Submission: 22-01-2024 Date of Acceptance: 02-02-2024

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## I. Introduction

Phyllodes tumors are extremely uncommon breast tumors, accounting for about 0.3% to 1% of all breast tumor cases. The majority of women who have them are between the ages of 40 and 50 (1) (2).

Numerous grading schemes have been put out for phyllodes tumors, all of which are predicated on the evaluation of the tumor's boundaries, the stromal cellularity and atyp-ia, the mitotic activity, and the stromal overgrowth.

The initial features of phyllodes tumors were documented in 1827 by Cumin and Che-lius.

In 1931, Lee and Pack reported on a case of phyllode tumor that was histologically ma-lignant.

The World Health Organization (WHO) suggested a three-level classification scheme: malignant, borderline, and benign (3).

Just 12–18% of patients are borderline tumors (4). This case report describes a giant borderline phyllode tumor of the breast.

## II. Case Report

This is a case report 34-year-old young woman, nulliparous and with no significant his-tory. she has had a mass of a painless left breast that is rapidly increasing in volume in four months.

On clinical examination, a giant ulcerated mass of the left breast measured 20 cm/15 cm with skin ulceration **(Figure 1)**. this mass is fixed to the deep plane. the examination of the lymph nodes was negative.

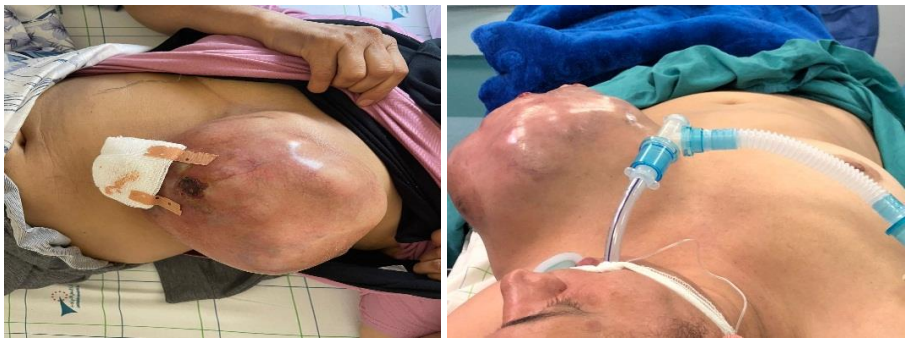

**Figure 1.** giant mass of the left breast with skin ulceration

In mammography:
Mass occupying almost the entire left breast, very dense with skin thickening.
Right breast: opacity straddling lower quadrants with calcifications.

Breast ultrasound:

Mass occupying almost the entire left breast, measuring 12*15 cm, polylobed, slightly hypoechoic, with some hyper vascularized fluid lodges. With skin thickening. BIRADS 5
Nodule straddling the lower quadrants of the right breast BIRADS 2.

Body scan:

this examination was requested as part of the local extension assessment showing a mass occupying the whole of the left breast and invading the pectoralis major muscle.

Histology following biopsy.
Cyto-morphological aspect and immunohistochemical data compatible with a borderline phyllode tumor.
the therapeutic management was decided by the multidisciplinary consultation meeting.

the surgical removal of the tumor was done under general anesthesia. the gesture consists of wide local excision with mastectomy and negative margins were successfully achieved with excision of the pectoralis major muscle **(Figure 2).**

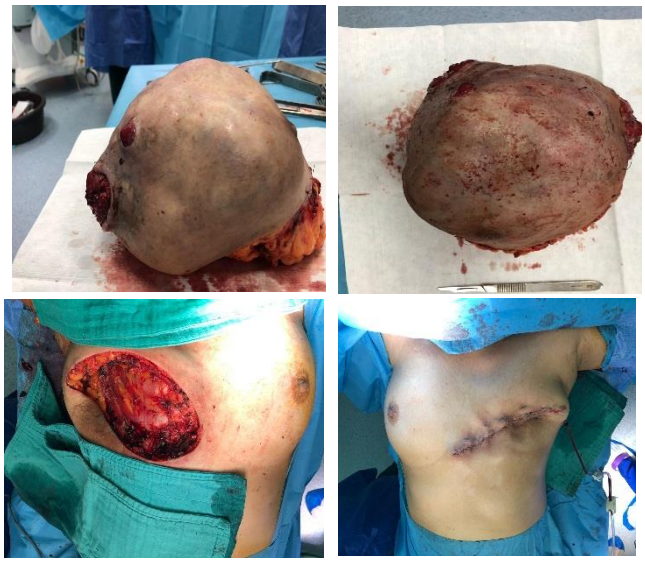

**Figure 2**. the surgical removal of the tumor

## III. Discussion

**Epidemiology:**

Of all primary breast tumors, Phyllode tumor make up 0.3% to 1% and 2.5% of fibroepithelial breast lesions; fibroadenomas make up the remaining 97.5% (5).

Malignant phyllodes tumors were found to occur on average once every 2.1 million women in a 17-year research conducted in Los Angeles County. African Americans, Asians, and non-Latina whites are the racial/ethnic groupings with lower cancer rates than Latina whites (6).
a study conducted in Morocco showed that phyllodes tumors represented 0.09% of primary breast tumors (7).

**Etiopathogenesis:**

Numerous publications have brought up the possibility of a pre-existing fibroadenoma filiation phyllode tumor due to the similarity in appearance between these two tumors. According to Noguchi et al (8), monoclonal proliferation, a somatic mutation with the ability to cause local recurrence and advancement in Phyllode tumor, may occur in a certain percentage of adenofibroma cases.

other factors may be implicated in the transformation of adenofibroma into phyllode tumor: the production of growth factor Immunoreactive endothelin 1 (irET-1) by the mammary epithelium (9), ionizing radiation (10), trauma, lactation, pregnancy and increased estrogenic activity.

**Anatomopathology:**

Macroscopically, Although the size of phyllodes tumors might vary, they are usually large, with a median size of 4-5 cm. The occurrence of enormous phyllodes tumors, or phyllodes tumors larger than 10 cm, has not been well documented in case reports. The sizes given are in the range of 15 to 50 cm. This tumor is among the biggest that have been documented in the lit-erature. Less than 5 cm tumors account for 73% of benign phyllodes

tumors, but bigger than 7 cm tumors are linked to malignancy. Giant benign phyllodes tumors account for about 20% of tumor cases.

Phyllodes tumors are categorized by the WHO in 2012 as benign, borderline, or malignant (3).

The Borderline phyllodes tumors are diagnosed if the mass does not possess all the adverse histological characteristics found in malignant phyllodes tumors with Moderate, non-uniform or diffuse a stromal hypercellularity, 5–9 per 10 high-power fields as stromal mitotic activity, Mild, moderate or focal stromal cell atypia. Also, Circumscribed or focally infiltrative tumor borders. and finally the absence of malignant heterologous differentiation (3)

**Diagnostic:**

it is tripod based: clinical, radiology and cytopathology.

These are tumors that appear in the fourth decennia. the age of our case was consistent with what is reported in the literature: 30, 3 +/-10.7 years.

As was the case with our patient, a large lump was discovered during the breast exam. We frequently see taut, glossy skin. In these situations, excessive pressure is the cause of skin ulceration. These tumors have varying rates of growth, with occasion-ally rapidly progressing outbreaks (11).

In terms of mammography, these are often large volume, uniformly toned masses with thickening skin that don't show any signs of questionable microcalcifications.

Single or several heterogeneous hypoechoic masses with often fairly limited outlines are seen in breast ultrasonography. On ultrasonography, these tumors cannot be distinguished from well-defined malignant tumors or fibroadenomas (11).

It can be challenging to distinguish between an adenofibroma and a phyllodes Tumor in cytology. According to Scolyer et al (12), the most crucial factor in differentiating between benign and malignant phyllodes Tumor was the presence of stroma cell atypia, while the presence of hypercellular stroma fragments was the most commonly employed element to separate phyllodes Tumor from adenofibroma.

Research has demonstrated that excision biopsy or tumorectomy are necessary for the diagnosis of phyllodes Tumor, while cytology alone is insufficient (13).

**Treatment:**

The care of phyllodes tumors larger than 3 cm, regardless of whether they are benign, borderline, or malignant, involves surgical removal with clean margins ≥1 cm and no axillary staging, according to the National Comprehensive Cancer Network (NCCN) guidelines on breast cancer (14). The recommendation also says that extensive local excision, if possible, is preferable to mastectomy because it maintains the breast's general design and integrity. However, because wide local excision necessitates free margins, safely removing tumors greater than 10 cm may not be feasible or feasible, and in cases of enormous phyllodes tumors, mastectomy may be considered such as our case.

When sufficient surgical margins cannot be achieved, recommendations have been made regarding the administration of radiation therapy. (15)

A six-month follow-up interval is advised for the first two years of phyllode tumor treatment since these tumors are locally recurrent. According to the research, insufficient surgical excisions were linked to local recurrence (16).

## IV. Conclusion

The phyllode tumor is a rare tumor whose diagnosis of phyllode tumor is primarily histological.

The reference treatment is surgical. It consists of an enlarged tumorectomy with obtaining margins of safety (greater than 10 mm). The main prognostic factor is the character complete or incomplete surgical resection.

**Patient Consent:** The patient provided consent for the use of her images.

**Conflicts of Interest:** The author declares no conflicts of interest regarding the publication of this paper.

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