Case Report

Jour Cas Stu Cas Rep, 3(3), 2024, 1-3

Journal of Case Studies and Case Reports

Open access peer reviewed international indexed journal Online ISSN: 2583-4428

Content Available at http://www.saapjournal.org/

A CASE REPORT ON PHYLLODES BREAST TUMOR

Ch.Sowjanya[1], G.V.S.Pranathi[2], B.Pallavi[2], V.Lohitha[2], V.C.Randeep Raj[3]

[1, 2] Student, Pharm.D, Avanthi Institute of Pharmaceutical Sciences, AIPS.

[3]Associate Professor, Department of Pharmacy Practice, AIPS.

Received: 24 July 2024 Revised: 19 Aug 2024 Accepted 28 Aug 2024

Abstract

Phyllodes tumors of the breast are relatively rare fibroepithelial neoplasms that present along a morphologic spectrum, ranging from benign to malignant. These tumors are biphasic, comprising both epithelial and stromal components, and account for less than 1% of all breast tumors. While most phyllodes tumors are benign, a small proportion can recur locally, and very rarely, they metastasize. The tumors are classified into three categories: benign, borderline, and malignant phyllodes tumors. The overall prognosis is favorable, with a 10-year survival rate of 87%. The risk of recurrence is influenced by tumor size and the surgical method used. The median size of phyllodes tumors is approximately 4 cm, though they can grow larger, sometimes presenting with dilated veins and a bluish discoloration of the overlying skin. Palpable axillary lymphadenopathy is observed in 10-15% of patients, but less than 1% has pathologically positive lymph nodes.

Keywords: Phyllodes tumors, malignant phyllodes tumors, axillary lymphadenopathy.

***Corresponding Author**
V.C.Randeep Raj

doi: https://doi.org/10.37022/jcscr.v3i2.629

Introduction

Phyllodes tumors were first described in 1774 as a type of giant fibroadenoma and were named "cystosarcoma phyllodes" by Johannes Muller in 1838. The World Health Organization (WHO) adopted similar terminology in 1982, classifying these tumors as "phyllodes tumors." Giant phyllodes tumors are fibroepithelial lesions that exceed 10 cm in diameter. Core biopsy is considered the most reliable diagnostic method for distinguishing between fibroadenomas and phyllodes tumors. The standard treatment is wide surgical excision with clear margins [1].

Epidemiology

Phyllodes tumors are rare, accounting for approximately 0.3% to 1% of all breast tumors, with an estimated incidence rate of 2.1 cases per million women. The median age of diagnosis is 54 years. The incidence of benign phyllodes tumors ranges from 35% to 64%, while malignant phyllodes tumors account for about 25% of cases. Around 10-15% of phyllodes tumors are malignant. The average annual incidence of malignant phyllodes tumors is 2.1 cases per million women, and they are most commonly found in women aged 35 to 55 years [2].

Etiology

The exact cause of phyllodes tumors is unknown, but several factors may contribute to their development. While the genetic risk factors for phyllodes tumors are not well understood, cases have been reported in individuals with Li-Fraumeni syndrome and in a mother-daughter pair, suggesting a potential genetic link. Additionally, hormonal influence may play a role, as elevated levels of estrogen and progesterone have been observed in some women with phyllodes tumors, implying a possible hormonal connection [3].

Pathogenesis

Unlike breast carcinoma, phyllodes tumors originate outside the lobules and ducts, developing in the breast's connective tissue, known as the stroma, which includes the ligaments and fatty tissue surrounding the lobules, ducts, lymphatics, and blood vessels. These tumors consist not only of epithelial cells from the ducts and lobules but also stromal cells. Although phyllodes tumors most likely develop de novo, there have been reports of fibroadenomas progressing to phyllodes tumors. Cytologically, these tumors present as cellular fibromyxoid stromal fragments made up of spindle cells, along with clusters or sheets of benign ductal epithelium without atypia, mixed with myoepithelial cells [5].

Clinical features

- Painless, smooth, multinodular lump in the breast

Imaging tests

A mammogram or ultrasound can show a phyllodes tumor as a clearly defined, round or oval lump with tiny flecks of calcium. However, it can be difficult to distinguish a phyllodes tumor from a fibro adenoma using imaging alone.

Biopsy

A core needle biopsy can often confirm a diagnosis, but sometimes an excisional biopsy is needed to remove the entire tumor and examine the tissue. An excisional biopsy is also the recommended treatment for a phyllodes tumor.

Examination

On examining the tissue sample from the biopsy to determine the type of tumor.

Both benign and malignant phyllodes tumors are treated with lumpectomy, surgical removal of the tumor with a margin of healthy tissue around it, radiation therapy to breast.The margin helps prevent them from recurring, which can happen with both types.

In cases of metastatic certain drug treatments may be considered.

Drug Treatments (if needed)

1. Chemotherapy:

Doxorubicin, Gemcitabine.

2. Targeted Therapy:

Imatinib (for tumors with specific genetic mutations).

Doses typically start at 400 mg daily.

3. Hormonal Therapy:

In cases where the tumor is hormone receptor-positive, agents like Tamoxifen may be considered. Common dosing is 20 mg daily.

Note

Dosing can vary based on the patient's health, tumor characteristics, and specific treatment regimens.

Case Report of Phyllodes Breast Tumor

Patient details

The patient was a female aged 52 years a resident of Pithapuram who is farmer by occupation and belongs to low socio-economic status

Chief complaints and presenting history

The patient presented with a lump in the left breast. Patient was apparently alright 4 months back when she started to notice a small lump which gradually progressed. The growth was slow and insidious associated with mild pain

Past history

The patient had previously 2 surgeries for the left breast ; first surgery being 9 years back and the second surgery 1 year back. No H/O Diabetes mellitus/ Hypertension /Tuberculosis / Trauma. No H/O of Hysterectomy 9 years back and the second surgery 1 year back.

Family history

NO first degree present with similar case

Personal history

Takes mixed diet .No loss of appetite and no disturbance in sleep. No smoking and alcohol.

Menstrual history

The patient attained menarche at around the age of 12 years. She had regular cycles with the duration of flow being 5 days per 30 days of cycle. It was regular with normal flow and associated with moderate pain without any clots present .Not associated with Dysmenorrhea.

Clinical findings on examination

Inspection of the breast was done in all 4 positions that is

- With the arms by the side of the body.
- With the arms raised straight above her head when the lump.
- With the hands on her hips.
- On inspection breast were found bilaterally symmetrical, circularin shape, with no scar , with no dimpling of skin /no nodules/ no ulceration/no fungation /no fixity.
- Nipples – present and symmetrical in shape and size no discharge.
- Areola brown in color and normal in size.
- Arm and thorax – no visible nodules.
- Axilla and supraclavicular area – No swelling seen
- With the patient bending forwards from the waist On palpating there was no local rise of temperature, tenderness was felt in the region of the lump; situated between upper inner and upper outer quadrant. Single 4cm X 3cm swelling well circumscribed margin ,firm consistency ,not fluctuating , no fixity to skin , intrinsic mobility present; no retraction of nipple.

Presence of lymph node 2cm x 2cm tender, mobile LN palpable in the central group of left side. 0.5cm X 0.5cm lymph node palpable at the brachial group.

Investigations

USG of left breast : well defined, irregular, heterogeneously ,hypoechoic, lesion of size 47 X 21mm noted in 12'O clock position of left breast with femicrocalcifications noted. Enlarged lymph nodes noted in left cervical region, largest measuring 2.3 X 2.7 cm in size. Few lymph nodes noted in right axilla largest measuring 2.1 X 1.9mm with preserved fatty hilum Imp: BIRADS III with bilateral lymphadenopathy. Cytology: FNAC from lump in left breast. Gross appearance: aspirated blood mixed grey white material. Microscopic Appearance: Smear studied is highly cellular and show monolayeredsheets, clusters and stromal fragments with few base oval nuclei in the background. Biopsy report: Trucut from lump left breast sent for HPE. Gross appearance: Received multiple (8) grey white tissue bits each measuring 1cm in length. Microscopic Appearance: Section studied show multiple tissue cores showing stromal proliferation withmyxoid change and occasional ducts lined by single layer of cuboidal and with hyperchromatic nuclei. There is no necrosis/atypical mitotic activity. The features suggestives of "phyllodes tumor".

Treatment

Wide local incision of the tumor with axillary lymph node dissection with frozen section. Primary tumor positive for phyllodes. Lymph node negative. Management of phyllodes tumor needs an approach involving a inter professional team that consists of a surgical oncologist, an oncologist, a pathologist, and a radiologist to deliver the best clinical results

Follow Up

Patient's wound healed and was discharge.

Conclusion

The 52-year-old female patient presented with a recurrent phyllodes tumor in the left breast, confirmed through diagnostic imaging and biopsy. She underwent wide local excision and axillary lymph node dissection, with pathology showing a positive phyllodes tumor but no lymph node involvement. The clinical pharmacist can support the patient's recovery by optimizing post-surgical pain management, ensuring appropriate antibiotic prophylaxis to prevent infections, and providing education on wound care. Additionally, the pharmacist should encourage adherence to follow-up appointments to monitor for recurrence and counsel the patient on lifestyle modifications, including nutrition and stress management, to support overall health. Regular coordination with the interprofessional team will help ensure comprehensive care and improve patient outcomes.

References

1. Hasdemir S, Tolunay Ş, Özşen M, Gökgöz MŞ. Phyllodes tumor of the breast: a clinicopathological evaluation of 55 cases. European Journal of Breast Health. 2020 Jan;16(1):32.
2. Damaskos C, Garmpis N, Kyriakopoulou A, Nikolettos K, Garmpi A, Dimitroulis D, Tsikouras P, Nikolettos N, Effraimidou EI, Vrettou K, Psilopatis I. Rapid-Growing Phyllodes Tumor after an Accidental Bump on the Breast: A Case Report. Case Reports in Oncology. 2024 Jun 18;17(1):935-41.
3. Mishra SP, Tiwary SK, Mishra M, Khanna AK. [Retracted] Phyllodes Tumor of Breast: A Review Article. International Scholarly Research Notices. 2013;2013(1):361469.
4. Esperança-Martins M, Melo-Alvim C, Dâmaso S, Lopes-Brás R, Peniche T, Nogueira-Costa G, Abreu C, Luna Pais H, de Sousa RT, Torres S, Gallego-Paez LM. Breast Sarcomas, Phyllodes Tumors, and Desmoid Tumors: Turning the Magnifying Glass on Rare and Aggressive Entities. Cancers. 2023 Aug 2;15(15):3933.
5. Lissidini G, Mulè A, Santoro A, Papa G, Nicosia L, Cassano E, Ashoor AA, Veronesi P, Pantanowitz L, Hornick JL, Rossi ED. Malignant phyllodes tumor of the breast: a systematic review. Pathologica. 2022 Apr;114(2):111.