

Epidemiological and pathological features of phyllodes tumor of the breast at the university hospital of Casablanca-Morocco.

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Highpoints

- Phyllodes tumors or cystosarcoma phyllodes are a rare form of breast tumor common in males than females
- Determination of gender based phyllodes tumor types at the university hospital of Casablanca-Morocco
- Breast-conserving surgery is the main treatment and best diagnosed histologically.

Abstract

Background: Phyllodes tumors are rare lesions of the breast, it occurs exclusively in females. Their management continues to be questioned.

Objective: The objective of our study is to determine the various epidemiological characteristics, of Phyllodes tumors of the breast at the university hospital of Casablanca-Morocco

Materials and Methods: We retrospectively reviewed 10 patients who had histologically confirmed phyllode tumors; collected in 6 years.

Results: All cases occurred in women, histological examination showed 7 cases of benign, 2 of borderline, and 1 of malignant (sarcoma), the mean age at diagnosis was 47,7 years [range 19–75], the mean tumoral size was 15,3 cm [range 8,5–27], 70% of patients presented with right-sided lesions and 1 case of bilateral location, 10% of patients developed metastasis in axillary lymph nodes, the Median delay between the appearance of the tumor and a medical examination was 17,6 months, surgical treatment consisted of an enlarged mastectomy for 60% of the patients. 10% of our cases had adjuvant radiotherapy. The evolution was marked by a local tumor recurrence in one patient during the first 12 months and no death was noticed.

Conclusion: Literature data and our study showed that diagnosis of phyllode tumor is histological, the treatment is exclusively surgical, the distinctive features in our series were: long delay before consulting (17,6 months) which aggravate the prognosis, important tumor size, predominant benign and borderline histological types, it seems urgent to improve health's education.

Keywords: Phyllodes tumor, Breast cancer, Morocco.

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Introduction

The phyllode tumor, a lesion limited to mammary tissue, is rare that account for less than 1% of all breast neoplasms, it is often misdiagnosed as fibroadenomas while imaging test (ultrasound or mammogram), The diagnosis can often be made with a core needle biopsy (Figure A and B), fibroadenomas grow up to 2-3 cm and then stop growing but phyllodes tumors grow continually and sometimes are to 40 cm big,

phyllode tumor was first described by Muller in 1838 and its cause remains unclear.

Fibroadenoma versus benign phyllodes, (Figure A and B (1) is a disease almost exclusively of women and occurs most often in the third and fourth decades of life, although there are reports of occurrences in adolescents. Rarely, phyllodes tumors develop in males, usually in those with a condition called gynecomastia.

Epidemiological data suggest that the incidence of phyllodes tumors may be higher in whites in general and in Latina whites and the East (Asians) in particular [2][3].

At present time, the exact etiology of phyllodes tumor and its relationship with fibroadenoma are unclear.

Evaluation of any new breast lump includes clinical examination, breast imaging, and needle biopsy, it is often difficult to distinguish benign phyllodes tumor from cellular fibroadenomas, it is frequently necessary to complete excise the lump to get a definitive diagnosis. Wide local excision, with an adequate margin of normal breast tissue, is the preferred initial therapy for phyllodes tumor of the breast [4][5].

Some authors separate phyllodes tumors into two subgroups, benign vs malignant [6][7], or low vs high-grade [8], others classify phyllodes tumors into three categories, benign, borderline, and malignant [9] [10][11]. From 2003, WHO proposed a classification of three categories: benign, borderline, malignant [9].

Objectives

The purpose of this study is to determine the various epidemiological characteristics of phyllodes tumors at the university hospital of Casablanca-Morocco.

Material and Methods

We retrospectively reviewed the record of 10 patients treated in the Oncology Center of the university hospital in Casablanca from January 2012 to December 2018; all

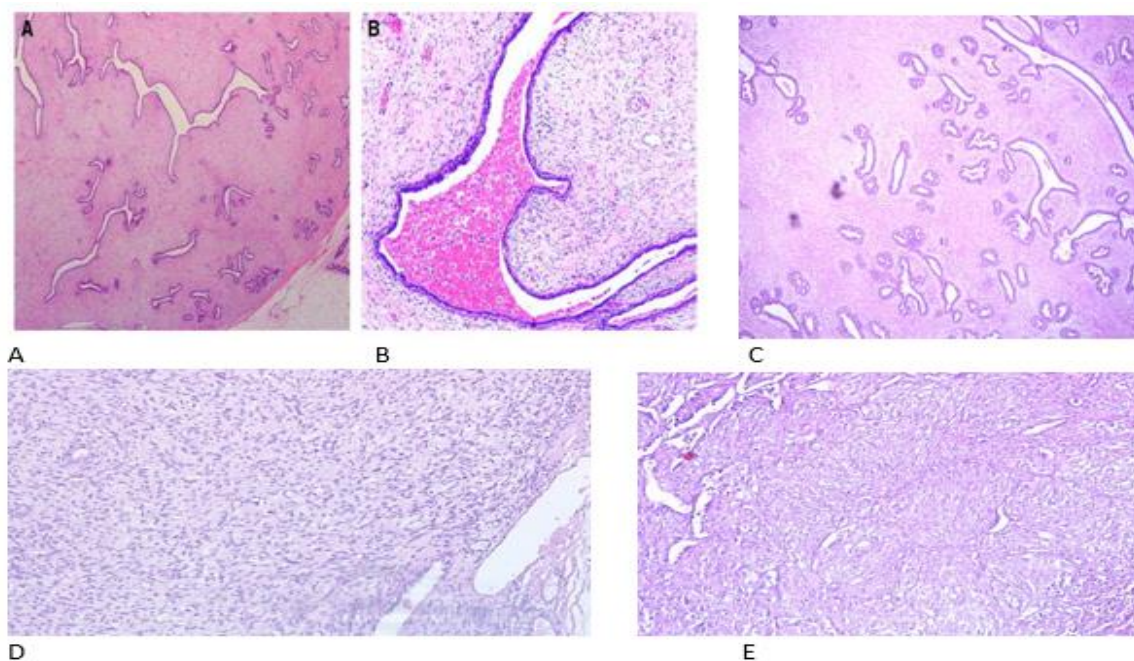
the files of patients with histological certainty of phyllodes tumor. Clinical data analyzed included: age, hormonal status, family history of cancer, the circumstance of discovery, diagnosis delay, Tumor size, location, histological classification, lymph nodes metastasis, evolution, treatment, it has been ruled out any file where the histological diagnosis was suspected, an operating sheet was used to collect epidemiological and histological data, and data analysis was performed using SPSS (21).

Result

All 10 patients were female, with a mean age of 47,7 years [range: 19-75]. 60 % of patients were in their periods, 60% of patients were nulliparous, 3 patients had a family cancer history, cancer was discovered through self-examination in 60%, median delay between the appearance of the tumor and a medical examination was 17,6 months [range:2-60].

Tumor size for the series ranged from 8,5 cm to 27 cm, the mean size was 15,3 cm. The majority of tumors were found on the right side (70%) and 1 case had a bilateral tumor. The pathologic diagnosis included 7 benign (figure C), 2 borderline (figure D), and 1 malignant lesion (sarcoma) (figure E). (Table 1)

10% of patients developed regional lymph node metastasis in axillary lymph nodes. The evolution was marked by a local tumor recurrence in one patient during the first 12 months, without any death. Surgical treatment consisted of an enlarged mastectomy for 60% of the patients and adjuvant radiotherapy for 50% of cases.



Figures A to E

Table 1: Clinico-pathological characteristics (N=10)

| Characteristics | | Mean (%) |
|---|------------|------------|
| Age | Age | 47,7 |
| Nulliparity | | (60%) |
| Family cancer history | | (30%) |
| Delay between appearance And medical examination | | 17,6 month |
| Tumor size | | 15,3 cm |
| Breast 's side | Left | (29%) |
| | Right | (70%) |
| | Bilateral | (1%) |
| Pathological diagnosis | Benign | (70%) |
| | Borderline | (20%) |
| | malignant | (10%) |

Discussion

Phyllode tumors are rare breast pathology, according to the literature, the average age ranges between 45 and 60 years [2-3], this matches with our results, the average age in our series was 47.7 years.

The phyllode tumor can occur at any stage of genital life. It often reaches the woman in perimenopause[12][13], In our series, the majority of patients

(60%) were in their period. The diagnosis delay in our series was 17,6 months, which matches with the previous studies [14].

Palpable axillary lymphadenopathy can be identified in up to 20% of patients, but metastatic involvement of axillary lymph nodes is rare [12][16]. In our series; lymph nodes were affected in 10% of cases.

Typically, the phyllode tumor is a nodule of varying volume ranging from 1 to 45 cm [16,17,18], phyllodes tumors can reach enormous proportions; tumors greater than 20 cm have been reported in multiple series [19][20][4][21]. In our study, the tumor measured on average 15,3 cm, it was located on the right side in 70% of cases. Phyllode tumour is bilateral in 32% of cases [15]. In our series, only 2 cases of bilaterality were observed.

Metastases occur most often through blood-borne and are always fatal [22], they most often sit in the lung and the bones, this matches with our results; one case had lung metastasis.

Local recurrence occurs in approximately 15% of patients with phyllodes tumors and is more frequent after inadequate excision [23]. In our series; 10% of cases had a local recurrence without noticing any death.

The treatment is essentially surgical but it poses the problem of wide exeresis, this must take into account the age of the patient, the size of the tumour compared to the breast, and the histopronostic grade, Cabaret, and al insist on the contribution of the extemporaneous examination to surgical treatment and the need for a wide exeresis [24].

despite discordant results on the effectiveness of adjuvant radiotherapy seen in several studies [25][26]. It seems wise to offer it to tumors larger than 5 cm, radiotherapy is indicated in case of a safety margin less than 10 mm during local recurrence or mastectomy [27], in our series 60% of patients have benefited from an extended mastectomy because of the large tumor size, associated to adjuvant radiotherapy in 10% of cases.

Conclusion

Phyllodes tumors of the breast are rare tumors that present as rapidly growing breast masses and are often misdiagnosed as fibroadenomas. The bears specific clinical characteristics and can be considered as a differential diagnosis for the breast lumps.

The preoperative diagnosis and correct management are crucial in phyllodes tumor because they tend to recur and malignant potential in some of these tumors.

According to our results, efforts should be made to reduce the delay between the appearance of the tumor and medical examination.

Abbreviations:

WHO: - World Health Organization

Conflict of interest:

The authors declare no conflicts of interest.

Ethical issues:

Informed consent was obtained from all participants after a detailed explanation of the study.

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Authors' contributions:

Conception and study design: Majdouline El fouhi and Abdelhalim Mesfioui and Bouchra Haddou Rahou. Data collection: Majdouline El fouhi . Data analysis and interpretation: Majdouline El fouhi and Bouchra Haddou Rahou . Manuscript drafting: Majdouline El fouhi and Bouchra Haddou Rahou . Manuscript revision: Abdelhalim Mesfioui and Bouchra Haddou Rahou and Abdellatif Benider . All authors approved final version of the manuscript

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