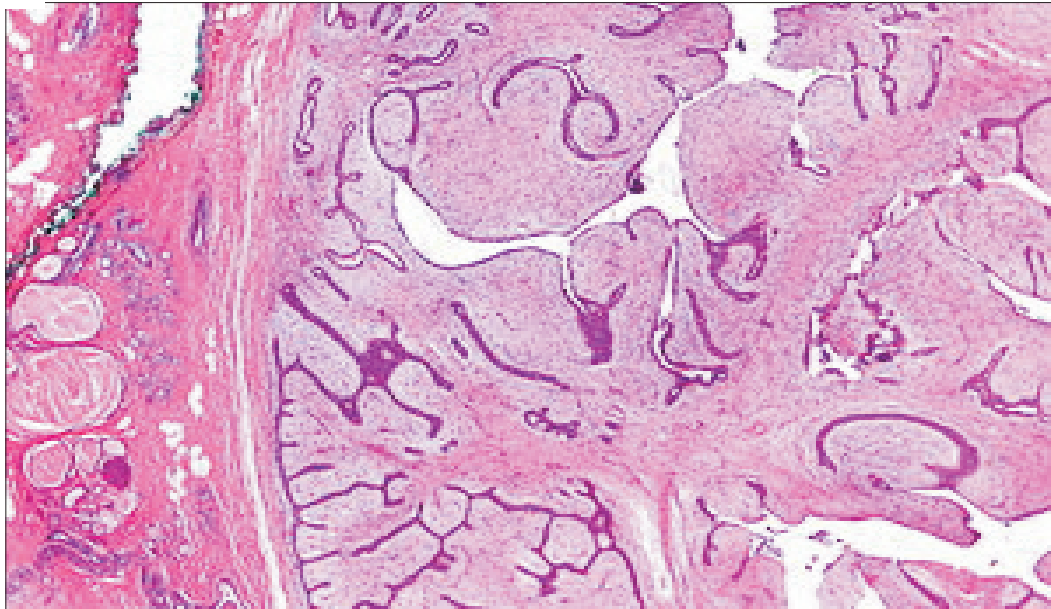




PHYLLODESTUMOR OF THE BREAST: CASE REPORT WITH BRIEF REVIEW OF LITERATURE.



Thamilselvam P^{1*}, Khairuzi S², Reddy SC³, Pandurangan T⁴ and SarmukhS⁵

¹Department of Surgery ,Hospital Sultanah Nora Ismail BatuPahat ,Malaysia.

* Department of Surgery, Faculty of Medicine and Defence Health, National Defence University of Malaysia, Kuala Lumpur, Malaysia.

² Department of Surgery , Hospital Sultanah Nora Ismail, BatuPahat , Malaysia.

³ Faculty of Medicine and Defence Health, National Defence University of Malaysia, Kuala Lumpur, Malaysia.

⁴ Department of Surgery, AIMST University, Semeling, Malaysia.

⁵ Department of Surgery ,Hospital University Sains Malaysia, Kubangkerian, Malaysia.

ABSTRACT:

Phyllodes tumors (PT), previously called as cystosarcomaphyllodes, are fibroepithelial tumors of the breast, representing 2-3% of all fibroepithelial tumors, and less than 1% of all breast tumors [1]. They are sometimes difficult to diagnose preoperatively and have unpredictable clinical outcome. These tumors must be suspected in patients with rapid-growing breast nodules, to avoid inappropriate management.

KEY WORDS: Phyllodes tumor, Breast, Simple mastectomy.

INTRODUCTION:

This is a rare biphasic fibroepithelial neoplasm that accounts for less than 1% of primary breast neoplasms [2]. It usually presents as a rapidly growing and clinically benign breast lump in females in the fourth or fifth decade of life [3,4]. It typically exhibits an enhanced intracanalicular growth pattern with leaf-like projections into dilated lumens. Malignant PTs are more readily characterized by stromal pleomorphism and overgrowth, frequent mitoses and infiltrative borders [5]. Literature search showed only one case report of phyllodes tumor of breast weighing more than 5 kg from Malaysia [6]. In view of its unusual size, we present a case of phyllodes tumors in a 50 year old lady, with review of literature and its management.

CASE REPORT

A 50-year-old female patient presented with unusual enlargement of her left breast with a mass for the past 6 months. She gave history of a small painless mass in her left breast for the past 8 years which increased slowly. There was no personal or family history of breast cancer. Physical examination of the breasts: there was an obvious swelling of the left breast (Figure 1), which was 15cmx15cm size. It was little warm, not tender, hard in consistency with a smooth surface and moving over the chest wall. The skin overlying the lump and breast was discolored in some area and dilated veins were noted (Figure 2). The right breast was normal. There were no axillary lymph nodes palpable on both sides. Her vital signs were stable.



Figure 1 showing the left breast with a mass.



Figure 2 Close view of the breast showing dilated veins and skin discolouration.

A diagnostic core biopsy performed as outpatient procedure showed typical histological features of mesenchymal tumour – benign phylloid tumour. The patient was admitted and routine investigations were done for fitness of surgery under general anaesthesia. Simple left mastectomy without axillary dissection was performed (Figure 3) and the specimen was sent for histopathology.

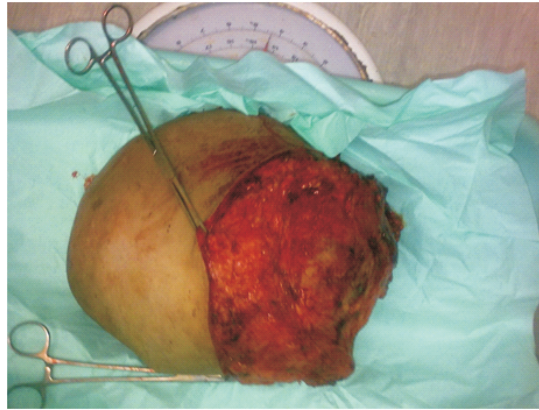


Figure 3 showing the mass within the breast.

Post operative period was uneventful and patient was discharged after one week. The histopathological report confirmed the diagnosis. She was under follow up in oncology clinic for a period of 3 years and there was no recurrence of tumour.

DISCUSSION

Phylloid tumour was originally described by Johannes Müller in 1838. It is an unusual fibroepithelial tumour of the breast constituting only 0.3% to 0.5% of all breast lesions.[7]. It is defined as mixed epithelial and stromal mesenchymal proliferation of breast tissue characterized by increased stromal cellularity and broad leaflike papillae inserted into cleftlike spaces. It usually occurs in middle-aged women but occasionally occurs at a younger age and in men. The mean age of patients presenting with PT of the breast is about 41 years.

These tumours are rare lesions with an incidence of less than 1% of all breast tumors[8]. Its incidence is greater in white women 35-55 years of age[9]. Clinically, PT are more commonly present as a rounded nodule, mobile, usually painless and with rapid growth. Histologically, these tumors are biphasic lesions consisting of a stromal and epithelial components, arranged in an undulating configuration with many slit-like spaces and crevices surrounded by an increased growth of mesenchymal cells. Its stromal part protrudes into the ductal lumen with a foliaceous aspect[10]. The 2003 WHO tumor classification proposed the classification of PT into three categories (benign, borderline and malignant) based on the degree of cellular atypia, mitotic activity, characteristics of the tumor margins and the presence of stromal growth[11].

Standard treatment for all PT requires a minimum of a 1cm clear margin [12]. Because malignant PT rarely metastasize to regional lymph nodes [13], sentinel node

biopsy is not indicated. The routine use of adjuvant chemotherapy and/or radiation therapy is not recommended for malignant PT since neither modality has shown an improvement in overall survival.

The use of systemic therapy for metastatic disease of PT is based on the guidelines for treating sarcomas, not breast carcinoma. Since only the stromal component metastasizes, the metastatic

deposits resemble sarcomas [14]. The malignant PT represent less than 1% of all breast malignancies and commonly have an indolent clinical course with a propensity for local recurrence. Adequate histologic sampling of the stromal tissue is necessary for diagnosis of malignant PT. Rarely, malignant PT can behave very aggressively once hematogenous dissemination to the brain has been diagnosed. There was an unusual case of malignant PT with pulmonary and brain metastases treated with palliative mastectomy, chemotherapy, and radiosurgery to the brain [15]. The incidence of metastases from malignant PT ranges from 6.2% to 25% [16,17].

CONCLUSION:

PT is an uncommon breast tumour which is predominantly treated with surgical excision-simple mastectomy. Although survival with these tumours is better compared to breast cancers, involvement of axillary nodes and borderline or malignant histopathology confers an increased risk of recurrence in these patients. Regular screenings would catch the patients early to undergo proper treatment and prevent them from the poor quality of life.

REFERENCES

1. Donegan WL. Sarcomas of the breast. In: Donegan WL, Spratt JS, editors. *Cancer of the Breast*. St. Louis, MO: Elsevier Science, Inc., 2002: 918-25
2. ElKhouli RH, Louie A. Case of the season: a giant fibroadenoma in the guise of a phyllodes tumor; characterization role of MRI. *Semin Roentgenol* 2009; 44:64-66.
3. Chaney AW, Pollack A, McNeese MD, Zagars GK, Pisters PW. Primary treatment of cystosarcomaphyllodes of the breast. *Cancer*, 2000; 89:1502-1511.
4. Korpanty G, Power DG, Murphy C, Kell M, McCaffery J. Phyllodes tumor of the breast. *Med Oncol*; 2010:12032-010.9695.9
5. Lee, A.H., Recent developments in the histological diagnosis of spindle cell carcinoma, fibromatosis and phyllodes tumour of the breast. *Histopathology*, 2008; 52:45-57.
6. Khajotia R, Poovaneswaran S, Thamilselvam P, Sabaratnam S, Khairan H. An unusually large breast tumour in a middle-aged woman. *Canadian Family Physician*, Feb – 2014; 60: 142-146.
7. Fiks A. Cystosarcomaphyllodes of the mammary gland—Müller's tumor. For the 180th birthday of Johannes Müller. *Virchows Arch A Pathol Anat Histol*. 1981; 392(1):1–6.
8. Reinfuss M, Mitus J, Duda K, Stelmach A, Ryś J, Smolak K. The treatment and prognosis of patients with phylloides tumour of the breast: an analysis of 170 cases. *Cancer*, 1996; 77:910-6.
9. Liang MI, Ramaswamy B, Patterson CC, McKelvey MT, Gordillo G, Nuovo GJ. Giant breast tumors: surgical management of phyllodes tumors, potential for reconstructive surgery and a review of literature. *World J Surg Oncol*, 2008; 6:117.
10. Kim JH, Choi YD, Lee JS, Lee JH, Nam JH, Choi C. Borderline and malignant phyllodes tumors display similar promoter methylation profiles. *Virchows Arch*, 2009; 455:469-75.
11. Bellocq JP, Magro G. Fibroepithelial tumors. In: Tavassoli FA, Devilee P. *World health organization classification of tumors: tumors of the breast and female genital organs*. Lyon: IARC; 2003:99-103.
12. Grabowski J, Salzsrein SL, Sadler GR, Blair SL. Malignant phyllodes tumors: a review of 752 cases. *Am Surg* 2007; 73:967-9.
13. Mangi AA, Smith BL, Gadd MA, Tanabe KK, Ott MJ, Souba WW. Surgical management of phyllodes tumors. *Arch Surg* 1999; 134: 487-92.
14. Gullett NP, Rizzo M, Johnstone PA. National surgical patterns of care for primary surgery and axillary

staging of phyllodes tumors. *Breast J* 2009; 15: 41-4.

15. Hawkins RE, Schofield JB, Fisher C, Wiltshaw E, McKinna JA. The clinical and histologic criteria that predict metastases from cystosarcomaphyllodes. *Cancer* 1992; 69: 141-7.

16. Zoubaidi MA, Qiu S, Bonnen M, Joyner M, Roehl K, Silva C, Chao C. Malignant Phyllodes Tumor of the Breast: A Case Report. *The Open Breast Cancer Journal*, 2011, 3, 45-48

17. Hawkins RE, Schofield JB, Fisher C, Wiltshaw E, McKinna JA. The clinical and histologic criteria that predict metastases from cystosarcomaphyllodes. *Cancer* 1992; 69: 141-7.

18. Oberman HA. Cystosarcomaphyllodes; a clinicopathologic study of hypercellular periductal stromal neoplasms of breast. *Cancer* 1965; 18: 697-710.