



## Surgery

## UNUSUAL PRESENTATION OF A BENIGN BREAST MASS: EXTENSIVE SKIN NECROSIS IN THE SETTING OF TUMOUR: A DIAGNOSTIC DILEMMA.

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**ABSTRACT** **Background:** Phylloids tumours of the breast are fibroepithelial neoplasm and they are notorious for local recurrence in about 19% of patients. The presence of a breast lump is the cause of great anxiety in the patient and source of a great concern to a surgeon because, a significant number can turn out malignant on evaluation. The usual management protocol is based on the assumption that mass is cancerous until proven otherwise. Isolated necrotizing fasciitis or skin necrosis of breast is rare in surgical practice more so in absence of any co-morbidity. Very large tumours can have skin necrosis at pressure points.

**Case report:** We are reporting a case of a 40 years lady presented with a rapidly increasing mass, occupying almost whole of her right breast and extensive ulceration over the breast mimicking inflammatory carcinoma of breast which has very grave prognosis.

**Conclusion:** The emphasis on reporting this case is to discuss the management of benign breast lump in setting of not so familiar clinical presentation and reporting two relatively lesser known entities necrotizing fasciitis and phylloid tumour altogether. The Indian society is deeply rooted in myths and illogical beliefs to such an extent especially for treatment of breast lump that it becomes the major cause behind late presentation of benign as well as malignant breast lump. So it is the attending surgeon's responsibility to make prompt diagnosis and offer optimal treatment. Comprehensive clinical history, thorough clinical examination, thoughtful use of radiological and pathological tools, knowledge of gross picture of phylloids tumours and wide local excision of these tumours without leaving doubtful tissue in the vicinity of breast and meticulous follow-up regimen are key to achieve success in cure from phylloids tumours of breast.

**KEYWORDS :** Inflammatory breast carcinoma, necrotizing fasciitis, Phylloids Tumour, Simple Mastectomy.

### INTRODUCTION

Phylloids tumour of breast are uncommon tumour, accounting for <1% of all tumours of breast. Phylloids is a Greek word meaning "leaf like" owing to the fact that tumour cells grow in a leaf like pattern. Although most phylloids tumours are benign, some are malignant and some are borderline. These tumours are notorious to grow quickly and they require surgery to reduce the risk of local recurrence. (1,2) These are more common in women in 30s and 40s(2,3). As phylloids tumours are prone to local recurrence, they are removed by taking 1 cm margin of normal breast tissue around tumour(3,5). Malignant phylloids tumours are treated by removing them along with a wider area of normal tissue or by mastectomy. Malignant phylloids tumour are different from more common types of breast cancer as they do not respond to hormone therapy and lesser response to radion therapy or chemotherapy(4,5).

To improve the preoperative diagnosis Poddington clinicopathological suspicion score can be beneficial. It incorporates clinical features, imaging FNAC findings in account.

### Clinical features

- 1) Sudden increase in size in a long standing lesion.
- 2) Apparent fibroadenoma >3 cm diameter or in patient >35 years of age

### Imaging

- 1) Rounded borders/lobulated appearance on a mammography.
- 2) Attenuation or cystic areas within solid mass on USG.

### FNAC

- 1) Presence of hypercellular stromal fragments.
- 2) Indeterminate features.

Presence of any of the two features mandates core biopsy (6).

In their study Jacob et al found that 4 stromal features in core biopsy specimen viz, Cellularity, nuclear atypia, mitosis and amount of stroma relative to epithelium differed significantly between cases that were fibroadenoma at excision compared with those that were phylloides(7).

Phylloids tumours have a variable clinical course with the ability to metastasize and a propensity to recur locally (8). The mainstay of treatment for phylloids tumours remains excision with safe surgical

margin taking advantage of breast conservation surgery, when amenable (9). Mastectomy is indicated only when free margins cannot be achieved without it. Involvement of axillary lymph nodes is not seen and clearance of axilla is not required (10). The prerequisite for phylloids surgery is complete excision with free margins fearing local recurrence. After excision if breast lump turned out to be a benign or borderline phylloids with <1 cm margins, it is not clear whether patient needs to be subjected to redo surgery to achieve pathologically negative margins (11).

A very less has been written about breast reconstruction after mastectomy for phylloids tumour (12). There is a report by Orenstein of immediate reconstruction of breast with silicone implants after excision of cystosarcoma phylloides in a teenage girl (13).

### CASE REPORT

We are reporting a case of 40 years married postmenopausal lady with four live issues youngest being 10 years old who presented to surgery OPD with complaints of lump in her right breast for past six months. To start with the lump was small in size and rapidly progressed to involve the whole of the breast within three months. Patient gave history of itching over the lump and after scratching once a next day morning she was surprised to see the redness, ulceration over the right breast and later on ulceration went haywire and involved whole of the breast with in four days. According to patient the lesions were painful without any episode of fever. Patient thought all this was the result of her wrongdoings so she did not consult anyone. Patient came to us only after five weeks of this. Patient did not give any history of diabetes mellitus or skin disease. There was no history of trauma to the breast. On examination right breast was enlarged as compared to left. There was a large eschar and multiple ulcers over the breast leaving few islands of normal skin. The local temperature was raised and we could palpate a large firm to hard mass of 12x8 cm. Right axilla was free of any mass. Examination of left breast and axilla was essentially normal. Systemic examination was unremarkable. On investigations her Hb was 10g/dl, TLC was 8000/cumm, Fasting blood sugar was 98mg/dl and HbA1C levels was 5.5%. USG right breast was suggestive of ACR-BIRADS 4, however mammography could not be done due to extensive skin lesions FNAC and True cut were tried from the normal area but that was inconclusive Swab for culture and sensitivity was sent which showed staph aureus sensitive to Amoxicillin and clavulanic acid and patient was given oral antibiotic tablets. After a week Incisional biopsy was taken from one of the ulcer area indicated towards possibility of phylloid tumour but definite nature was not told.

Considering rapid increase in size, extensive non-healing ulceration or inconclusive histopathological examination and with strong clinical suspicion of malignant phylloid patient underwent simple mastectomy on 27/7 2017. There was a single lymph node in the axillary tail area which was also sent for histopathological examination along with specimen. The final histopathology report confirmed it to be a benign phylloids tumour. The lymph node showed reactive changes.

## DISCUSSION

In our case utmost priority was to differentiate the lesion from inflammatory breast carcinoma as duration of lump was for six months only and sudden onset erythema, itching and involvement of almost entire breast within short span of time and later on extensive ulceration all favoured but there was no peau d'orange. After inconclusive FNAC incisional biopsy was of great help to clear the diagnostic dilemma. Automated breast ultrasound and MRI can be of great help in this situation. The diagnosis of inflammatory breast carcinoma is based on the presence of all of the following clinical criteria: rapid onset of breast erythema, edema and/or peau d'orange, and/or warm breast duration of history of no more than 6 months, erythema occupying at least one third breast and pathological confirmation of invasive carcinoma (14).

Differentiation between benign and malignant phylloids tumours is difficult clinically as well as histopathologically. No etiologic or predisposing factors have been associated with phylloids tumours apart from Li Fraumeni syndrome, a rare autosomal dominant condition that is associated with development of multiple tumours (15). The average size of phylloids tumours is 4cm but 20% are giant phylloids tumours with diameter reaching up to 10 cm or more (6). Large complicated benign phylloids tumours masquerading malignant tumours should be treated with total mastectomy.

The necrosis may result either from intramural bleeding or compression of blood supply. The compression is caused by the size of the tumour and not by the direct extension into skin, as seen in carcinomas. When the tumour is superficial the compression may cause the skin to necrotize and ulcerate. In tumours situated at depth they eventually liquefy resulting in a cyst formation (15). In phylloids tumours rapid growth does not necessarily indicate malignancy. The skin overlying tumour becomes shiny, stretched out and thin as the tumour pushes against the skin and in neglected cases skin ulceration can develop due to ischemia secondary to stretching and pressure in all types of phylloids tumours.

Phylloids tumours are classified into three types according to criteria of Azzopardi and Salvadori, benign borderline and malignant constituting around 35-60%, 10-15% and 20-25% respectively (6). Many studies have reported unusual behaviour of phylloids tumours in form of rapid growth or necrosis in setting of low grade malignancy otherwise which is a feature of malignancy. Skin lesions can be seen in all three types and not necessarily hinting towards metastatic potential of these tumours. The nipple may be affected but invasion or retraction is uncommon (16).

There have been reports of breast gangrene following MRM, BCS, Lumpectomy implants and reduction mammoplasty more commonly in immune-compromised patients. Skin necrosis and infections sometimes accompanies breast lump benign as well as malignant, predominantly in malignant. (17,18)

In our case the tumour grown rapidly with involving whole of the breast overlying skin ulceration post erythema for past five to six weeks and with high index of suspicion for malignancy. For phylloids tumours it is recommended to take at least 1 cm margin of normal tissue all around to halt the local recurrence, but that was not possible with breast conservation in our patient. So keeping in mind the future course of the aetiology patient was exposed to simple mastectomy.

To experience occasional discrepancies between clinical behaviour and under the microscope findings of phylloids tumours is not uncommon and considering unpredictable outcome surgical option with >1 cm margin is the only therapeutic option. Surgeons should be familiar with the gross appearance of a phylloids tumours so that tumour can be recognized during surgical procedure. The gross specimen of phylloids tumour lacks capsule, lobulated fleshy appearance of tumour. Phylloids tumours are usually single. Bilateral synchronous or metachronous phylloids tumours are rare. In cases of high index of suspicion of malignancy an expert opinion from

pathologist can be sought in form of frozen section. A close follow up with frequent breast examination and imaging tests is mandatory after treatment every 6 months for 2 years.

## ESSENCE

- Unusual presentation of large breast masses poses diagnostic problem.
- Automated breast ultrasound and MRI can be used as screening option for women with dense breast.

Simple mastectomy can be considered in doubtful masses where >1 cm tumour free margin is not possible as discrepancies between clinical behaviour and under the microscope finding of Phylloid tumour is not uncommon.



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