CASE SERIES ON PHYLLODES TUMOUR OF THE BREAST

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ABSTRACT: BACKGROUND: Phyllodes tumor of breast is one of the rare neoplasms comprising less than 1% of all breast tumours.aim of the study is to evaluate the clinical charecteristics, treatment regimens and complications of phyllodes tumor in our institution.

PATIENTS AND METHODS: We have retrospectively reviewed the medical records of 2 years from 2013 to 2015 of patients who presented to our department, government general hospital, Kakinada.

RESULTS: 342 patients presented with breast tumors of which 126 are malignant and 216 are benign. Phyllodes tumor constituted 8 cases of the total breastlump cases presented in our institution from 2013 to 2015. 3 out of 8 cases are recurrent.

CONCLUSION: In benign cases wide local excision with clear margins is sufficient to prevent recurrence. In recurrent and malignant cases simple mastectomy has to be done.

KEYWORDS: Phyllodes tumour, recurrent phyllodes , simple mastectomy.

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INTRODUCTION: Phyllodes tumors are rare fibroepithelial neoplasms accounting for less than 1% of all breast tumors.[1]Phyllodes tumors occur almost exclusively in females, although rare case reports have been described in males.The tumors can develop in people of any age; however, the median age is the fifth decade of life. trucut biopsy and histopathology are useful in diagnosis of phyllodes tumour.

PATHOLOGY: Based on infiltrative margin, stromal overgrowth, stromal atypia and cellularity, and mitotic activity they are classified into.[2]

- Benign (common).
- Borderline.
- Malignant.

CLINICAL PRESENTATION: Most of the tumor arises in women aged between 35 and 55 years (approximately 20 years later than fibroadenoma),[3] Few cases have been reported in men and these have invariably been associated with the presence of gynaecomastia. It usually presents as a rapidly growing but clinically benign breast lump. In some patients a lesion may have been apparent for several years, with clinical presentation precipitated by a sudden increase in size.

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1. The skin over large tumors may have dilated veins and a blue discoloration but nipple retraction is rare.[4]
2. Fixation to skin and pectoralis muscles has been reported, but ulceration is uncommon.
3. More commonly found in upper outer quadrant with an equal propensity to occur in either breast.
4. Rarely presentation may be bilateral.
5. The median size of phyllodes tumors is around 4 cm. 20% of tumors grow larger than 10 cm (giant phyllodes tumor). These tumors can reach sizes up to 40 cm in diameter.[5]
6. A significant proportion of patients have history of fibroadenoma and in a minority these have been multiple. [6]
7. Palpable axillary lymphadenopathy can be identified in up to 10–15% of patients but <1% had pathological positive nodes.[7]

TREATMENT: If diagnosed preoperatively, tumor should be resected with at least 1 cm margins particularly in the borderline and malignant phyllodes tumors. This can be accomplished by either lumpectomy or mastectomy, depending upon the size of the tumor relative to the breast. For benign phyllodes tumors diagnosed after local excision of what appeared to be a fibroadenoma, a "watch and wait" policy does appear to be safe. [8]With such an approach, local recurrence and five year survival rates of 4% and 96% respectively have been reported for benign phyllodes tumors.[9] Whether patients with benign phyllodes tumors who have undergone local excision and have histologically positive specimen margins should undergo

further surgery or be entered in a surveillance program is controversial. Reexcision of borderline and malignant phyllodes tumors identified after local excision should be considered.[10]

We have conducted the study to evaluate clinical charecteristics, pathophysiology, treatment regimes and complications of phyllodes tumour.

PATIENTS AND METHODS: The protocol is approved by ethics comittee and written informed consent is obtained from each patient. 342 patients had the diagnosis of breast tumor(benign and malignant). In our centre from 2013 to 2015. phyllodes tumour constituted 8 cases of the above, these are retrospectively evaluated in this study. All cases had a palpable mass in effected breast but no palpable axillary/ supraclavicular/ cervical lymphadenopathy. Ultra sonography, FNAC and chest radiography were performed for all the cases.Chest and abdominal CT scans were performed only for borderline and malignant lesions to rule out metastatic disease either preoperatively or post op. Trucut biopsy was done in all the cases.For lesions less than 5cms wide local excision with atleast 1cm margin was performed. Simple Mastectomy is performed for borderline and malignant or large benign lesions to obtain adequate margins. Lymphnode dissection is not performed in any case. Malignant cases with or without metastasis are subjected to chemotherapy. Chemotherapy is by doxorubicin or dacarbazine with combination of cisplatin or iphosphamide.

RESULTS: (Table 1)

- Median age at diagnosis was 48 yrs (30 to 60 yrs).3 out of the 8 cases are benign, 4 are borderline and 1 is malignant. The median tumor size was 13.25cms (4 to 30cms). All patients presented with a breast lump, mastodynia is noted in 3 cases.
- 3 out of these 8 cases have given history of recurrence.One case had undergone mastectomy 1yr ago for the diagnosis of malignant phyllodes tumor, whose resected posterior margins are not free from tumor infiltration. Tumor recurred again, CT chest revealed lung metastasis. She was treated with simple mastectomy and was given adjuvant chemotherapy.
- Other 2 cases had recurrence twice, one was after wide local excision, where postoperative histopathology found one case to be benign and other case as borderline malignant. (figure 1 and 2)
- Both of these patients had first recurrence within 2years of previous surgery for which simple mastectomy was done. Second recurrence occurred due to inadequate margins, for which lumpectomy was done.
- Simple mastectomy is performed in malignant phyllodes tumour.
- All patients were disease free at a median follow up period of 20 months. (3to 20 months)

DISCUSSION: Phyllodes tumor is a rare fibroepithelial breast neoplasm with unpredictable clinical course, which resembles fibroadenoma; it accounts for 0.3% to 1% of all primary breast tumors and 2.5% of fibroepithelial breast lesions. Fibroadenomas account for almost all of the remaining fibroepithelial tumors. This tumor has very variable but usually benign course, and it has a propensity to locally recur and the ability to metastasize.

The median age group in which these tumors occur (45 years) is about 15 years older than the age group for fibroadenomas. PTs often present as palpable masses, most commonly located in the upper outer quadrant of the breast. PTs usually grow slowly and are often painless. Nipple retraction and bloody nipple discharge may occur when the tumor involves the areolar region. PTs vary greatly in size with a mean size of 4-5 cm, larger tumors are more likely to be malignant.

Mammography and ultrasound appearances are non-specific and the pre-operative diagnosis of PT is difficult since rapid growth and/or large size of apparent fibroadenomas may be the only imaging findings suggesting PT. PTs appear on mammography as lobulated round or oval masses with well-circumscribed borders and rarely contain calcification. On sonography, PTs are usually well-defined, solid masses with heterogeneous internal echoes, without posterior acoustic attenuation. A diagnosis of PT should be considered if sonography reveals fluid-filled, elongated spaces or clefts in a solid mass. It is often difficult to differentiate PT from fibroadenoma on sonography or mammography, and it is not possible to distinguish between benign and malignant PTs on the basis of sonographic or mammographic findings. Magnetic Resonance Imaging may be used to delineate the full tumor extent and potential satellite lesions before surgical excision. PTs can occur synchronously with fibroadenoma with an incidence higher than the percentage seen in the general population. The percentage of concurrent fibroadenomas varies from 4.2% to nearly one third of women with PTs.

Treatment includes wide surgical excision with a margin of more than 1 cm even when pathologic features suggest benignity. Mastectomy is necessary only when tumor cannot be removed with adequate clearance. Most of the studies in the literature have found that a positive margin status is the most consistent indicator of local recurrence. Preoperative diagnosis is then important for good local control. Wide reexcision should be considered when the margins are involved microscopically. Metastasis in PT usually spread hematogenously to the lungs, pleura, or bone and axillary lymph node dissection is not indicated. Patients with locally recurrent disease should undergo wide excision of the recurrence.

CONCLUSION:

- Most common age of presentation of phyllodes tumour is 4^{th} and 5^{th} decade.
- Usually tends to occur left side.
- Most common presentation is breast lump.

- Fnac frequently fails to distinguish fibroadenoma from low grade phyllodes tumour diagnosis of suspected phyllodes tumour should be by incisional biopsy to know grade of tumour and decide on type of procedure.
- Eventhough benign pathology is described as commonest, we had an equal incidence of benign and borderline cases.
- For benign cases wide local excision with adequate margins is sufficient to prevent recurrence except for few exceptions where 1cm safe margins from palpable lump is inadequate.
- In borderline and malignant cases simple mastectomy followed by chemotherapy has to be performed to prevent recurrence.
- Surgical margins, tumour size and tumour grade significantly increase the local recurrence.

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Sl. No	Age	Localization	Size	Classification	Local recurrence	Metastasis	Chemotherapyh	Disease recurrence after treatment
1	60	R	25	Malignant	no	yes	yes	no
2	60	L	6	Borderline	no	no	no	no
3	42	L	5	Benign	no	no	no	no
4	59	R	20	Borderline	yes	no	no	no
5	50	L	8	Borderline	no	no	no	no
6	30	L	4	Benign	no	no	no	no
7	40	L	8	Borderline	yes	no	no	no
8	45	R	30	Benign	yes	no	no	No

Table 1

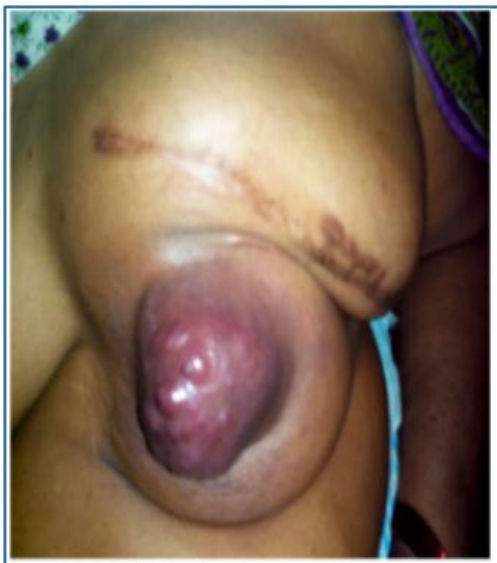

Fig. 1: This picture shows case of recurrence after simple mastectomy

Fig. 2: Intraoperative photograph