



CYSTOSARCOMA PHYLLOIDES IN ADOLESCENT AGE GROUP

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ABSTRACT Cystosarcoma phylloides, generally known as phylloid tumor, is a rare fibro epithelial tumor presents as 1% of total breast neoplasm. WHO termed it as “PHYLLOID TUMOR” and classified it into benign, borderline and malignant categories. Usually, it occurs in ages from 35 to 50years but adolescent and elderly women are also affected very rarely. We report 11 cases of histologically proved Cystosarcoma phylloides cases in young girls aging between 10 to 18yrs. in period from January '15 to August'17.

MATERIAL AND METHOD – 11 Cases of Cystosarcoma phylloides (proved on histology) were treated in our hospital, age ranging from 10.5yrs to 17 years. Duration of symptoms on an average was 1 and a half years. Size of tumor ranged from 10cm X 8cm at maximum points, all lump except one were neither fixed to skin nor to pectoral fascia. Onlu one case was fixed to skin and had excoriated it.

Result – Histology - All lumps removed were sent for histopathological examination and all except one were benign in nature, one had increased mitotic activity.

Treatment - Surgical management is the mainstay of treatment. We did wide excision of the tumor, considering the age of patients. Breast was preserved. Malignant tumor case underwent mastectomy.

Discussion - Histologically Cystosarcoma phylloides is a biphasic tumor, resembling fibro adenoma, but hyper cellular intralobular mesenchymal component causes distortion of ductal epithelial structures. The exact cytology of Cystosarcoma phylloides and its relationship with fibro adenoma is not clear so far. Affects women of 35-50 yrs of age.

CONCLUSION – The pre-operative diagnosis and early surgery are crucial in these young patients because, very often they report late. Local excision rather than sacrifice of breast is advocated. Early excision of fibro adenoma may further decrease the incidence of these tumors.

KEYWORDS :

INTRODUCTION

Phylloides Tumours (Greek-Phyllon-Leaf), are also named as cystosarcoma phylloides. Phylloides Tumours are fast growing large tumours of the breast and account for less than 1% of breast neoplasm. Tumour was first described as giant fibroadenoma .. Chelius (11) in 1827 described this tumour and in 1838 Mueller(7) was the person to use the term Cystosarcoma Phylloides. It was believed to be benign until 1948. In 1981 WHO adopted the term Phylloides Tumour, and classified as benign, borderline and malignant.(13)

These tumours generally occur in age group around 40 to 55yrs and average being 45yrs although rare in children, but cases have been reported in teenagers. Phylloides tumours are fibro-epithelial tumours having epithelial and stromal components, further classification depends on histological features including stromal cellularity, infiltration at edge and mitotic activity . Large series of Anderson Cancer Centre, (5) report incidence of each as benign (58%), borderline (12%) and malignant (30%), last behave like sarcomas and develop and through blood, common sites for metastasis being Lung, bone, and Abdominal viscera.

We in our hospital, in a prospective study on breast lumps in teenagers, encountered 11 of breast lumps as Cystosarcoma phylloides in teenagers. Patient's age ranging from 11 to 18yrs, in a period from Jan 2015 To August 2017, out of 256 patient registered as breast lump, 11 were later diagnosed as Phylloides tumours on histological examination.

MATERIAL AND METHODS

This study was conducted in the department of surgery of Teerthanker Mahaveer Medical College Moradabad. 256 patients of breast lumps in teenagers were registered. 11 of these were with abnormally enlarged breast, giving h/o very rapid growth of one of breast with in a period of 6 to 18 months, age range was 11 to 17.5 yrs. Clinical features have been shown in the table.

Skin of the affected breast was out stretched, thin and shiny except in one case where it had ulcerated. No lymph node involvement was found except one case.

All these patients report late because of hesitancy at this age group and

it being a belief that it is normal development of breast along with other secondary sexual characters. Notice of lump was taken only when it had grown enormously and was compared to other breast.

Wide lump excision was done and breast was preserved in all cases except one where it involved skin and areola and on cytological examination, there was increased mitotic activity.

All lumps sent for histological examination, were benign except one which was histologically proved malignant.

RESULTS

Follow up these patients was done regularly for 6 to 12 months, no recurrence was reported, and but most of them did not attend hospital even after 6 months.

S. No	Age	R/L	SKIN	Lymph node	Duration	Fixity
1	11	R	Not	Not palpable	1yr	Nil
2	11	R	Not	Not palpable	1yr	Nil
3	13	R	Not	Not palpable	8mon	Nil
4	14	L	Not	Not palpable	1.4yrs	Nil
5	17	L	Not	Not palpable	6mon	Nil
6	16	R	Not	Not palpable	1yr	Nil
7	18	L	Not	Not palpable	1yr	Nil
8	11	L	Not	Not palpable	9mon	Nil
9	13	R	Not	Not palpable	1yr	Nil
10	12	L	Not	Not palpable	1yr	Nil
11	17	R	Stretched	Palpable	1yr	Ulcerated

DISCUSSION

Phylloides Tumours are also called as Cystosarcoma Phylloides, are typically large epithelial tumours. In past, the term “Giant Fibroadenoma” was synonymous with benign cyst sarcoma phylloides (1,7,15). They make upto a total 1% of breast tumours (-1) in age group of 45-50yrs but rarely found in teenagers and elderly. In our study on 256 patients reporting to the hospital, 11(4.1%) patients were found to suffering from massive breast enlargement and were of age group of 11 to 17 yrs and later were diagnosed as cystosarcoma phylloides histologically, rest were fibroadenomas. Almost similar reports have been reported in American literature in four large studies (5%) (4.5.7.8).

All cases were found to be benign except one, with increased mitotic activity on histopathological studies. Size of tumour ranged from 10Cm- 18Cm in our series also. In recent reports on 40 cases of cystosarcoma from Japan, 30% patients were around 19yrs of age. This probably reflects an increasing incidence of this tumour in adolescent age group (3%). The reason for late presentation includes the fact that lesions are painless, patient's expectation that it might disappear in time or is a developmental body change along with secondary sexual characters and it was not surprising for same reason that 17 years aged girl presented so late that tumour had ulcerated and had increased mitotic activity in our study.

Grossly Cystosarcoma Phylloides vary in size, consistency and shape, cystic changes are very frequent. The surface may have cauliflower or bosselated appearance, suggesting lobulation or it may be entirely smooth outlined. Many contain firm and fibrous areas. Benign lesions are found to be frequently cystic(6,13).

Assessment by clinical, radiological, and cytological/histological examination form the fundamental basis for evaluation of breast lumps (13,14,15). Histologically cystosarcoma phylloides are composed of epithelial elements and increased stromal cellularity when compared with fibroadenoma. The degree of increased stromal cellularity along with cellular atypia, and mitotic activity have distinguished Benign and Malignant lesion. Norris and Taylor varies pattern to relate histological features of the tumour to its ultimate behaviour (6).

In a study on 45 pts of phylloides tumour in adolescent aged (10 to 24yrs) it was concluded that both breasts are equally affected and that phylloides tumours in adolescent girls and young women are not so aggressive as in older population Rajan et.al.(16)

The surgery for phylloides tumour in teenage varies from simple excision to radical mastectomy. Local recurrences are reported to be four times more frequent following Local excision however; deaths from metastatic tumour in adult group were twice as common in patients, initially treated by Mastectomy (17).

Axillary lymph node involvement has been rarely reported (7,12). Wulsin(4) advises to hesitate to sacrifice breast in adolescent female for this lesion. Cystosarcoma occurring in this age may not behave like lesions in older age group, these grow rapidly to a large size in a short period and this growth is probably related to hormonal stimulus of puberty. (1,2,11)

Total of eight patients of Cystosarcoma Phylloides were reported by Anderson in 10 years and only one turned to be malignant.(5)

Mastectomy for cystosarcoma of adolescent should be avoided as far as possible, and in large lesions curved incision on lateral and inferior border can be given.(17)

CONCLUSION

The early preoperative diagnosis and conservative surgery, are the crucial aims of treatment at this age. Wide excision was mandatory because of late reporting. Local excision rather than sacrifice of the breast is advocated. All fibroadenomas need early excision, as it may decrease the incidence.

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