MEDICAL CHANNEL

Original Article

PHYLLOIDES TUMOUR BREAST OUR EXPERIENCE AT CMCH LARKANA

1. **AKLIMA ASAD ABRO**
   FCPS
2. **NADIA BHATTI**
   FCPS
3. **SHAHID HUSSAIN SOOMRO**
   FCPS
4. **RAJA SEELRO**
   FCPS

1. ***Assistant Professor***
   Chandka Medical College Hospital, Larkana.
2. ***Woman Medical Officer***
   Chandka Medical College Hospital, Larkana.
3. ***Assistant Professor***
   Chandka Medical College Hospital, Larkana.
4. ***Senior Medical Officer***
   Chandka Medical College Hospital, Larkana.

Correspondence Address:
DR. AKLIMA ASAD ABRO
Assistant Professor of Surgery
Chandka Medical College Hospital, Larkana.

ABSTRACT:

Objective: To determine the effective diagnostic and management modalities for phylloides breast tumor.

Methodology: This is a descriptive study, conducted at department of Surgery, Chandka Medical College Hospital Larkana from 01-09-2001 to 30-07-2012, consist of 15 cases. Sampling technique was non probability purposive. All patients with benign and malignant Phylloides tumour were included. Exclusion Criteria included: Breast lump other than Phylloides tumour, Patients not consented for study, Patients not operated due to any reason and Patients not visited for follow up.

Data Collection: Informed consent was taken from the patients who met inclusion criteria. Parameters were noted in especially designed proforma. All patients were followed for three years to observe recurrence rate.

Data Analysis: Data was entered and analyzed by SPSS version 16. Mean +/- SD was calculated for age of the patients. Frequency and percentage was calculated for age group, clinical features, investigations, surgical procedures and final outcome of the patients.

Results: 15 patients were diagnosed as a case of Phylloides tumour breast. Age ranged from 20-52 years with mean and standard deviation of 41.20 years+/-8.51. Majority of patients were in 4^{th} and 5^{th} decade. All patients presented with painless breast lump. Mammography suggested benign Phylloides in 9 patients (60%) while malignant in 2(13.33%). FNAC revealed benign Phylloides tumour in 12(80%) while malignancy in 3(20%) patients. Trucut biopsy suggested benign lesion in 11(73.33%) and malignancy in 4(26.66%) patients.

All patients were operated. 6(40%) underwent lumpectomy, in 5(33.33%) patients wide local excision was performed while mastectomy was performed in 4(26.66%) patients. 8 patients had uneventful recovery, Seroma was observed in 4 patients and infection in 3 patients. Recurrence was observed in 4 patients during 3 years of followup.

Conclusion: Phylloides is a less common form of breast tumor having unpredictable behavior diagnosed on clinical grounds and confirmed on Trucut biopsy.

Depending on the ratio of breast and tumor size, wide local excision can be effective and breast conserving procedure.

Follow up is necessary to observe recurrence rate.

Key words: Phylloides, Painless mass, Trucut biopsy, breast conservative surgery.

INTRODUCTION:

Phylloides tumor was described by Johannes Muller in 1838, classically the name Cystosaroma Phylloides was given because of its fleshy and macroscopically cystic appearance. Phylloides tumor is currently an accepted term according to the World Health Organization.[1]

Phylloides tumours are unusual neoplasms, accounting for less than 0.5% of breast

tumours and about 2.5% of fibro-epithelial tumours.[2] These tumours have diverse range of biological behavior. In their least aggressive form, they behave like fibro adenoma while on other end of spectrum, tumours have malignant potential that metastasize distantly. Data indicates that tumor grade increase with age at the time of diagnosis. Some case reports describe these tumours in men are usually in association with gynaecomastia. [3]

Phylloides tumour usually occur in women over the age of 40 years and present as a large tumours with an unevenly bosselated surface. Occasionally, ulceration of overlying skin occurs because of pressure necrosis. Regardless of the size, they remain mobile on the chest wall.[4]

Mammography and FNAC provide the base for the diagnosis of phylloides tumour. Core Needle Biopsy of Phylloides allows the surgeon for preoperative planning of surgery in order to reduce the need for reoperation.[5] Other than surgery there is no curative treatment for Phylloides and wide local excision is the common form of treatment. The risk of developing local recurrence/ mets is related to the histological grade and tumour free margin of specimen.[6] Optimal management continues to be a challenge because breast conservative surgery even with clear margins does not further decrease local recurrence.[7] Mastectomy may be recommended for massive tumours, recurrent and malignant variants.[8]

METHODOLOGY:

Study Design: Descriptive Study.
Setting: Department of surgery, Chandka Medical College Hospital Larkana
Study Period: 01-09-2001 to 30-07-2012
Sample Size: 15 cases
Sampling Technique: Non probability purposive
Inclusion criteria: All patients with benign and malignant Phylloides were included in study.
Exclusion criteria:

- Breast lump other than Phylloides
- Patients not consented for study
- Patients not operated due to any reason
- Patients not visited for follow up

DATA COLLECTION

All patients who met inclusion criteria were included in this study. Purpose and procedure of the study was explained to the patients in local language and informed consent was taken from the patients or their first degree relatives. Parameters were noted on especially designed proforma, including bio-data of the patient, clinical features, investigations, treatment and complications. All patients were followed for a period of 3 years for recurrence.

DATA ANALYSIS

Data was entered and analyzed by SPSS version 16. Mean +/-SD was calculated for age of the patient.

Frequency and percentage were calculated for age group, clinical features, investigations, post operative complications and recurrence.

RESULTS

Total number of 15 patients with Phylloides tumour breast were included in our study. Age ranged from 20-52 years, mean age of 41.20+/-8.51. Majority of the patients were between 31-50 years of age. (Table 1)

All patients presented with painless lump. Other features were palpable lymphnodes, nipple retraction and skin fixity. (Table 2) Most of the patients underwent Mammography which suggested benign Phylloides in 9 patients (60%). This procedure was not performed in 4 patients (26.66%) which were below 40 years. FNAC was performed in all patients which showed benign Phylloides in 12(80%) patients while trucut biopsy suggested benign lesion in 11(73.33%). (Table 3)

All patients were operated. 6(40%) underwent lumpectomy, in 5(33.33%) patients wide local excision was performed while mastectomy was performed in 4(26.66%) patients.

Out of 15 patients, 8(53.33%) had uneventful recovery, Seroma was observed in 4(26.66%) patients and infection in 3(20%) patients. Recurrence was seen in 4(26.66%) patients during 3 years of follow up.

TABLE-1:
AGE OF THE PATIENTS

Age	No. of patients	Percentage
20-30	2	13.33
31-40	5	33.3
41-50	7	46.66
>50	1	6.6

TABLE-2:
CLINICAL FEATURES

Features	No. of patients	Percentage
Painless lump	15	100
Palpable lymphnodes	2	13.33
Nipple retraction	2	13.33
Skin fixity	2	13.33

TABLE-3:
RESULT OF INVESTIGATIONS

Mammography		
Diagnosis	**No. of patients**	**Percentage**
Benign	09	60
Suspicious of malignancy	02	13.33
Not performed	04	26.66
FNAC		
Benign	12	80
Malignant	03	20
Trucut biopsy		
Benign	11	73.33
Malignant	04	26.66

DISCUSSION

Phylloides tumour of breast is a less common form of breast lump supported by literature[9], account for 0.3% to 0.5% of all breast

tumours. In this study, age ranged from 25-55 years and majority of the patients were seen during 4th and 5th decade. Mean age was 41.20+/-8.51, this is comparable with one study in which the age range was 20-64 years.[10] This is contrast to another study in which median age was 37.2 years.[11] All patients presented with painless breast lump. Diagnostic and therapeutic procedures are still debated. Preoperative diagnosis based on clinical examination, FNAC, Mammography and Core needle Biopsy.

Mammography was performed in 11 patients which suggested benign lump in 9, while suspicious of carcinoma in 2 patients. Mammography was not performed in 4 patients below 30 years because of dense breast. In our study FNAC was performed as one of the diagnostic tool which suggested benign lesion in twelve patients while suspicious of carcinoma in three patients. Role of FNAC was supported by several studies, Chaiwunet al[12] concluded in his study that in experienced hands FNAC of breast masses is reliable for diagnosis of Phylloides. In another study[13] author has supported the role of FNAC in the diagnosis of breast masses.

Tissue diagnosis is very important to achieve definite final diagnosis. In this study trucut biopsy was performed in 15 patients, out of those 11 suggested benign lesion while malignant lump in 4 patients. Several studies has recommended Core needle biopsy for definite diagnosis. Jacobs TW[14] described that the assessment of Stromal cellularity, mitosis and proliferation indices might help to determine the probability of Phylloides tumour which help in management of these patients.

Phylloides tumour especially its malignant variant is an unpredictable disease entity that remains enigmatic due to its relative rarity.[15] Out of 15 patients included in our study, lumpectomy was commonly performed procedure in 6 patients (40%) followed by wide local excision in 5 patients (33.33%) and mastectomy was performed in 2 patients (13.33%) having malignant Phylloides and recurrent giant Phylloides. Several studies have been conducted to describe surgical options for Phylloides. Sharma JB et al in his study[16] operated a case of big Phylloides with pregnancy followed by simple mastectomy in puerperium. In another study Barth et al[17] described that radiotherapy after BCS with negative margins significantly reduces the local recurrence rate for border line/ malignant tumours. In contrast to our study, one study has suggested that mastectomy is more effective than BCS.[18]

Lumpectomy/ BCS in benign Phylloides was also preferred in one study[13] without re-surgery before recurrence. In comparison to our study Finochhiet al[2] conducted a case report of cystosarcoma Phylloides procedure performed was BCS with little role of radio / chemotherapy. In our study, 6(40%) patients out of 15 had uneventful recovery, recurrence was observed in 4(26.6%) patients, seroma in 3(20%) patients and infection in 2(13.3%) patients. Several studies are conducted on recurrence following surgery. All 15 patients were followed for 3 years to know recurrence rate. It was observed in stump positive patients in tissues near to scar. Bouhafa T et al[11] observed recurrence of phylloide in 18.86% of patients. In another study supported our study that recurrence varies from 8-46%.[19,20,21]

CONCLUSION:

Phylloides tumour is a rare breast tumour showing unpredictable behavior, diagnosed on Tru-cut biopsy. Breast conservative surgery can be effective in selected cases. Meticulous follow up is mandatory in order to manage possible recurrence of neoplasm and re-operation.

REFERENCES:

1. Liang MI, Ramaswamy B, Patterson CC, Mckelvey MT, Gorillo G, Nuovo G J et al. Giant breast tumours: Surgical management of Phylloides tumors, potential for reconstructive surgery and a review of literature. World J of SurgOnco 2008;6:117.
2. Finocchi L, Covarelli P, Rulli A, Servoli A, NoyaG.Bilateral Phylloides cystosarcoma of the breast: a case report and review of literature. Chirital. 2008;60 (6):867-872.
3. Hossouna JB, Damak T, Gamoudi A, Chargui R, Khomsi F, Mahjoub S et al. Phylloides tumours of the breast: a case series of 106 patients. Am J Surg. 2006;192(2):141-7
4. Russell RCG, William NS, Blustrode CJK. The breast. In: Baily and Love's, Short practice of surgery; 25th edition: London, Arnold 2008;827-848.
5. Komenaka IK,EL-Tamer M, Pile-Spellman E, HisbshooshH.Core needle biopsy as a diagnostic tool to differentiate Phylloides tumor from fibroadenoma. Arch Surge. 2003;138(9):897-19.
6. Guillot, E, Conunturadu B, ReyalF,CurnierA,Ravinet J, Lae M et al. "Management of Phylloides breast tumors:. The breast journal 2001;17(2):129-137.
7. Cheng Sp, Chang YC, Liu Tp, LeeJJ, Tzen CY, Liu CL. Phylloides tumor of the breast: the challenge persists. World J Surg. 2006;30(8):1414-21.
8. Cuschieri SA, Steele RJC, Moossa AR. Disorders of the breast. In: Essential Surgical Practice;4th edition: Arnold 2002;61-93.
9. ShabirJ,O'Sullivan JB, MahmoodS,ByrnesG.Phylloides tumor of breast. JCPSP 2003;13(3):170-1.
10. Haberer S, LaA CM, SeegersV,Pierga JY, Salmon R, Kirova YM, et all. Management of malignant Phylloides tumors of the breast: the experiences of the institut Curie. CancerRadiother. 2009;13(4):305-12.
11. Bouhafa T, Masbah O, Bekkouch I, Afqir S, Mellas N, Ismaili N et all. Phylloides tumor of the breast: Analysis of 53 patients. Cancer Radiother.2009;(2):85-91.
12. Chaiwun B, Settakorn J, Ya-In C, Wisedomongkol W, Rangdaeng S, Thorner P. Effectiveness of fine-needle aspiration cytology of breast: analysis of 2,375 case from northern Thailand. DiagnCytopathol. 2002; 26 (3):201-5.
13. Taira N, Takabatake D, Aogi K, Ohsumi S, Takashima S, Nishimura R et al. Phylloides tumor of the breast: Stromal overgrowth and Histological Classification are useful Prognosis-predictive factors for Local Recurrence in Patients with a Positive surgicalMargin. Am J ClinOncol 2007;37(10):730-736.
14. Jacobs TW, Chen YY, Guinee DG Jr, Holden JA, Cha I, Bauermeister DE et all. Fibroepithelial Lesions with cellular stoma on breast core needle biopsy: Are there predictors of outcome on surgical excision? Am J Clin Pathol.2005 Sep;124(3):342-54.
15. Macdonald OK, Lee CM, Tward JD, ChappelCD,Gaffney Dk. Malignant Phylloides tumor of the female breast: Association of Primary Therapy with cause –Specific Survival from the Surveillance, epidemiology, and End Results (SEER) Program. Cancer 2006;107(9);2127-33.
16. Sharma JB, Wadhwa L, Malhotra M, Arora R, Singh S. A case of huge enlargement of cystosarcoma Phylloides of breast in pregnancy. Eur J obstetGynecolReprod Bio.2004;10;(2): 237-9.
17. Barth RJ , Wells WA, Mitchell SE, Cole BF."A prospective, Multi-Institutional study of Adjuvant radiotherapy after resection of malignant Phylloides tumors". Ann SurgOncol. 2009;16(8):2288-94.
18. Belkacemi Y, Bousquet G, Marsiglia H, et al. "Phylloides tumor of the breast". Int J RadiatOncolBiolPhys2007;70 (2):492.
19. Chen Wh, Cheng Sp, Tzen Cy, Yang TL, Jeng KS, Liu Cl, et al. Surgical treatment of Phylloides tumors of the breast: retrospective review of 172 cases. J SurgOncol 2005;91:185-94.
20. Chaney AW, Poolack A, McNeese MD, Zagars GK, Pisters PW, Pollock RE, et al. Primary treatment of cysosarcoma Phylloides of the breast. Cancer 2000;8(9):1502-11.
21. Ben Hassouna J, Damak T, Gamoudi A, Chargui R, Khomsi F, Mahjoub S, et al. Phylloides tumors of the breast: a case series of 106 patients. Am J Surg 2006;192:141-7.