

TYPES OF BREAST LUMPS IN A TERTIARY CARE HOSPITAL

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ABSTRACT

Objective: To evaluate the frequency of breast lumps both clinically and pathologically.

Material and Methods: This descriptive prospective study was carried out in Surgical "D" Ward, Khyber Teaching Hospital, Peshawar. The study was carried out for one year from December 2014 to November 2015 in which all those patients between 16-60 years of age with breast lumps who presented to surgical OPD were included. But all those who presented with breast symptoms but no lumps and patients younger than 16 years and older than 60 years were excluded. They were interviewed and examined in detail for breast symptoms, investigated using breast ultrasonography and if indicated mammography were performed. Later on underwent fine needle aspiration cytology or biopsies. All these information were noted on a predesigned proforma. Data were analyzed using SPSS version 16 and results were compared with other studies.

Results: Breast lump was the presenting complaint in 84 female patients. The commonest lesions observed were benign in 58(69%) patients out of 84 total patients and 26(30.9%) patients were having malignant lesions. Among benign lesions Fibroadenoma were on the top in 32(38%) patients followed by fibrocystic changes in 15(17.9%) patients, breast abscess in 9(10.7%) and phylloides tumors in only 2(2.4%) patients. Out of 26 malignant cases 22(26.2%) were invasive ductal carcinoma, 3(3.6%) invasive lobular carcinoma and 1(1.1%) were medullary carcinoma.

Conclusion: Breast lump is the commonest presentation in patients with breast diseases. Majority of the breast lumps are benign followed by carcinoma breast according to our study.

Key Words: Breast, lump, Fibroadenoma, Cancer, Fine needle aspiration cytology.

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INTRODUCTION

In females breast lump is one of the commonest symptoms for visiting a surgical department. Finding a breast lump can cause a lot of anxiety. It is always feared with the increase in prevalence in breast cancer. This lasts until they receive specialist assessment, required investigations and eventually reassurance. It is not necessary that all breast lumps are malignant but rather benign breast lumps are more prevalent than malignant^{1,2}. Among benign breast diseases Fibroadenoma is the most common⁵. Management of breast lumps varies according to the presentation of the patient. In Pakistan breast cancer is the most prevalent malignant tumor in females³. So it is important to get hold of the disease in its earliest stages in order to avoid high mortality from carcinoma breast⁴.

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Any female patient who presents with breast lump should be thoroughly examined and investigated using triple assessment. The sensitivity and specificity of clinical examination is 54% and 84% respectively⁵. Age of the patient, clinical data along with histological examination give valuable information about the nature of the lump.

MATERIAL AND METHODS

This descriptive prospective study was carried out in surgical "D" ward Khyber Teaching Hospital, Peshawar from December 2014 to November 2015. A total 87 female patients between 16-60 years of age, who presented with complaints of breast lump to the surgical outpatient department were included through consecutive sampling (Non probability sampling). While those with breast symptoms but no palpable lumps and younger than 16 years and older than 60 years were excluded.

A proforma was designed containing information pertinent to patient symptoms, clinical examination, sonographic and if indicated mammographic findings were recorded on each proforma which was filled for all patients. All patients were followed up till the report of FNAC or histological diagnosis and final diagnosis was

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recorded. Breast diseases were classified into benign (inflammatory conditions, fibrocystic disease, Fibroadenoma) and malignant. Data were subjected to statistical analysis and SPSS version 16 was used for analysis. The numerical data such as age was expressed as mean and standard deviation while the categorical data such as gender, site involved were expressed as frequency and percentages.

RESULTS

This study was carried out in surgical "D" unit of Khyber Teaching Hospital, Peshawar for one year from December 2014 to November 2015, in which all those patients between 16-60 years of age with breast lumps who presented to surgical OPD were enrolled. A total of 84 consecutive patients were included in this study. The mean age of the patients presenting with complaints of breast lump was 37.5 ± 5.46 years. Out of 84 patients, 61 patients (72.6%) were married and 23 patients (27.4%) were unmarried. Lumps in the breast were discovered by self examination in 78(92.85) patients while in only 6(7.1%) patients they were accidentally discovered by an examining doctor for some other symptoms.

Of all the cases, the left breast was more affected with 43(51.2%) cases than the right breast with 40(47.6%) cases and bilaterally 1(1.2%) respectively. Site wise, the upper outer quadrant was the commonest site at 42(50%) cases followed by lower outer quadrant 15(17.8%) cases, upper inner quadrant at 13(15.5%) cases, central 7(8.3%) cases, lower inner quadrant 4(4.8%) cases, multiple quadrants 3(3.6%) cases and whole breast 1(1.2%) respectively.

During clinical examination lumps were either diagnosed as benign or malignant according to the local findings. Diagnosis of breast abscesses and mostly Fibroadenoma were made clinically which confirmed later on histopathologically. Fibrocystic changes and phylloides tumors were diagnosed on histological examination. Although malignant lumps were mostly diagnosed clinically but histopathology further divided them into invasive ductal, lobular carcinomas and medullary carcinoma. Table 1 shows frequency of the lesions

Table 1: Frequency of breast lumps

S. No.	Disease	No. of cases & percentages
1.	Fibroadenoma	32 (38%)
2.	Fibrocystic changes	15 (17.9%)
3.	Abscess	9 (10.7%)
4.	Phylloides tumor	2 (2.4%)
5.	Invasive Ductal Carcinoma	22 (26.2%)
6.	Invasive Lobular Carcinoma	3 (3.6%)
7.	Medullary Carcinoma	1 (1.1%)
8.	Total	84(100%)

observed in our study. Mean age for Fibroadenoma was 23.2 years with a range of 18-29 while for breast cancer mean age was 46.3 years with a range of 26-78 years.

DISCUSSION

The discovery of a breast lump and associated fear that such a lump might be cancerous is the most important reason patients present to the hospital⁵. Among patients finding of a breast lump is the most common presenting complaint in up to 82.8% cases⁶. Background knowledge of general features is needed for the correct diagnosis of breast disease. Majority of studies have shown that such patients presenting to the surgical department have benign breast disease¹.

In developing countries breast disease presentation is late due to unawareness, illiteracy and social problems resulting in diagnosis in both benign and malignant cases. Triple assessment comprises of history, clinical examination, breast imaging and pathological examination has been shown to be accurate for the pre-operative diagnosis of breast lumps. Breast self examination is recommended for all females to discover their breast lumps at an early stage of their disease but unfortunately only 14.3% of patients discover their breast lumps by self examination while in majority 53.4% it is an accidental finding⁶. Jebbin et. al; observed that 20% of females perform breast self examination on monthly basis⁷. Benign breast diseases have been commonly observed in age range of 11-30 years^{8,13,16}. Khan Zainab observed that the mean age of presentation of patients with Fibroadenoma was 24.36 ± 8.6 years, fibrocystic disease 31.14 ± 8.59 years and breast abscess 32.08 ± 13.31 years⁵. While the mean age observed for carcinoma breast in studies conducted in different regions of Pakistan was 47 ± 15.84 years.

In majority of the studies it has been observed that left sided breast involvement is more than the right side^{4,8}. Raju et al conducted a study which included 1051 patients over a period of six years also found that the left side involvement is more than the right side⁹. While a study conducted by M. Kumar has shown that right side is more affected than the left one¹⁰. Moreover upper outer quadrant is more affected than any other quadrants^{4,11}. After biopsies of breast lumps, histo-pathological analysis revealed that benign breast lesions are more frequent as reported by Akhator¹², Okobia et al.¹³, Yusuf et al¹⁴ and Ochicha et al¹⁵ as 72.6%, 90%, 71.3% and 73% respectively. While in some studies carcinoma breast are slightly commoner (54.8%) than benign lesions (45.2%)⁶.

Among the benign lesions Fibroadenoma is considered the most frequent histopathological diagnosis (42.5%) in our country than UK (7.7%) and USA (18.5%)¹⁶. This increased frequency of Fibroadenoma in Pakistan is unclear. Jamal A also reported that Fibroadenoma was the most common breast lesion in their population in Jeddah, Saudi Arabia where it was present in 47% of the females¹⁷. Many other research workers have also reported in their studies that Fibroadenoma is

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the commonest benign lesion^{18,19,20}. Fibrocystic disease is the second most common benign lesion followed by carcinoma or alternatively²¹.

20-30% of female patients presenting with breast lumps are malignant^{4,17}. It has been observed in different studies conducted in different regions of Pakistan that in Pakistani population, females with carcinoma breast are mostly premenopausal and younger age group with mean age of 46 years⁶. While in studies conducted in Japan and United States where majority of carcinomas are seen in post menopausal females and the mean age is 54 years¹⁷. Among malignant lesions invasive ductal carcinomas are more prevalent¹⁷.

CONCLUSION

Breast lump is one of the commonest presentations in females. Benign breast conditions are more prevalent than malignant lesions. Among benign lesions Fibroadenoma is the most frequent lesion. But it is more alarming that carcinoma breast is more frequent in Pakistani females at their younger age.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

- Khan A:** Operating surgeon and data analysis.
Jan H: Operating surgeon and data analysis.
Rafiq MS: Data collection, bibliography.
Waheed R: Follow up and bibliography
Wahid A: Data collection.
Hamid T: Statistics.
Khan MM: Critical review and final approval.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.