

Original Article

The Frequency of Various Causes of Breast Lumps in Females Presenting to Surgical OPD in A Tertiary Care Hospital

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Objective: To determine the frequency of various types of breast lumps in females presenting to a tertiary care hospital.

Study design: Descriptive case series

Place and Duration: Department of General Surgery, Pakistan Institute of Medical Sciences (PIMS) Islamabad during the period from April 26, 2010 to September 26, 2010.

Materials and Methods: Female patients above 14yrs of age presenting for the first time with a breast lump to Surgical OPD of PIMS, Islamabad were included in the study. FNAC was carried out in all of these patients and they were called for follow up till histopathology report. The data was subjected to statistical analysis i.e., non- probability sampling was applied.

Results: A total of 127 patients were included in the study according to sample size. The mean age of presentation was 33.41 ± 15.86 years. The left side was involved in the majority of patients i.e. 73 patients (57.5%) and 42 patients (54.5%) had lump in the right breast. Out of 127 patients 69 patients (54.3%) were married and 58 patients (45.7%) were unmarried. In these patients breast lump was located in the upper outer quadrant in 67 patients (52.8%). 24 patients (18.9%) presented with lump in the lower outer quadrant, 17 patients (13.4%) with lump in the upper inner quadrant, 13 patients (10.2%) with lump involving the central area and 6 patients (4.7%) with lump in the inner lower quadrant. The commonest lesion on FNAC report was fibroadenoma breast which was present in 59 patients (46.5%) and 44 patients (34.6%) reported to have breast cancer. 13 patients (10.2%) had breast abscess and 7 patients (5.5%) had fibrocystic disease based on FNAC reports. Only 4 patients (3.1%) that presented to our OPD had phyllodes tumor of the breast.

Conclusion: Majority of breast lumps are benign. Breast cancer is the second most common lump in our study which is more frequent as compared to studies conducted elsewhere in Pakistan and abroad.

Key words: Breast lump, Fibroadenoma, Breast cancer, FNAC.

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Introduction

Majority of females visit the clinic with the common presentation of breast lump.¹ A breast lump may be malignant or non malignant. Although majority of breast lumps are benign², diagnosis of benign from malignant lesions is important as breast cancer is the worst fear of a female presenting with a lump in the breast. Any female who presents with a breast lump has to be thoroughly examined and investigated using the triple test. The sensitivity and specificity of clinical breast examination is estimated to be 54% and 94%

respectively depending upon the technique of the examiner.³

Internationally, there is growing awareness about the significant morbidity and mortality of breast lumps, particularly breast cancer. The incidence is different in different parts of the world. In the U.S.A, one out of every eight women is diagnosed with breast cancer during her life time, infiltrating ductal carcinoma is the most common variety.^{4,5}

On national level we need mass awareness regarding detection of early breast cancer and to foster knowledge about the medical and socio economic implications of

this common public health issue. This goal can be achieved only if we have epidemiological data of our own. Thus, we conducted our study in order to know the changing pattern of presentation of breast lumps in females who presented to the surgical O.P.D and compare it with studies conducted elsewhere.

Materials and Methods

This descriptive study was carried out in the department of General Surgery, Pakistan Institute of Medical Sciences (PIMS) Islamabad during the period from April 26, 2010 to September 26, 2010. PIMS is a tertiary care hospital which is situated in the capital city of Pakistan. It has approximately 1000 bedded building and serves as a busy referral centre for all kinds of cases from the twin cities, Azad Jammu Kashmir and upper Punjab. The department of General Surgery has a separate OPD for females and approximately 800 patients per day are seen in the surgical OPD. It was noticed that majority of the females presenting to the Surgical OPD present with complaint of a lump in the breast. 127 female patients were included in the study through Consecutive sampling (Non probability sampling). All female patients with complaints of breast lump over 14 years of age presenting for the first time to the outpatient department of General Surgery were included in the study.

Follow up was carried out till the report of FNAC. All the data were subjected to statistical analysis to measure the objectives. SPSS version 10 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

A total of 127 patients were included in the study according to sample size. The mean age of presentation was 33.41 ± 15.86 years. Out of 127 patients, 69 patients (54.3%) were married and 58 patients (45.7%) were unmarried. The left side was involved in the majority of patients, 73 patients (57.5%) and 42 patients (54.5%) had lesion in the right breast. In these patients breast lump was located in the upper outer quadrant in 67 patients (52.8%), 24 patients (18.9%) presented with lump in the lower outer quadrant, 17 patients (13.4%) with lump in the upper inner quadrant, 13 patients (10.2%) with lump involving the central area and 6 patients (4.7%) with lump in the inner lower quadrant. Table I shows that the most common lesion on FNAC report was fibroadenoma breast which was present in 59 patients (46.5%) and 44 patients (34.6%) reported to have malignant lesion i.e. carcinoma breast. 13 patients (10.2%) had breast abscess and 7 patients (5.5%) had fibrocystic disease based on FNAC reports.

Only 4 patients (3.1%) that presented to our OPD had phyllodes tumor of the breast.

Table I. FNAC of patients presenting to SOPD

FNAC report	Percentage of patient%(n=127)
Fibroadenoma	46.5
Carcinoma breast	34.6
Breast abscess	10.2
Fibrocystic disease	5.5
Phyllodes tumor	3.1

Discussion

Although benign breast lumps are more common than malignant ones, females who present to the OPD with complaints of breast lumps suffer anxiety due to the fear of it turning out to be a malignant lesion. Thus, it is important to investigate these patients according to standard protocols to relieve their stress.⁶

We had included 127 females in our study. The mean age of presentation of patients with breast lumps was 33.4 ± 15.8 yrs in which minimum age at presentation was 18 yrs and maximum age was 85 yrs. Similar values have also been reported by Isaac and colleagues elsewhere in Pakistan.⁷⁻⁹

The left breast was involved in the majority of patients i.e. 73 patients (57.5%) versus 54 patients (42.5%) in which the right breast was involved. This finding was also noted by Isaac U and colleagues.⁷ Talpur A et al also noted in their study that lump in the breast was more common on the left side in 53.33% of their patients than on the right i.e. 44.66%.⁸

Moreover, breast lump was located in the upper outer quadrant in 67 patients (52.8%). 24 patients (18.9%) presented with lump in the lower outer quadrant, 17 patients (13.4%) with lump in the upper inner quadrant, 13 patients (10.2%) with lump involving the central area and 6 patients (4.7%) with lump in the inner lower quadrant. This finding has been supported by literature and by Isaac et al in Pakistan.^{7,10}

FNAC was performed in all our patients and called for follow up in the OPD till the FNAC report. As shown in Table II, the most common breast lesion in our study was fibroadenoma which was present in 59 patients (46.5%). In Karachi, Talpur and colleagues also reported that fibroadenoma was the most common benign breast lump among their patients i.e. 30.66%.⁸ Rashid et al showed that 42.1% patients had fibroadenoma breast in their study which was conducted in PIMS in 2005.¹¹ Internationally, 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 females.¹² In Nepal, fibroadenoma was the least common lesion, present in 21.6% of the female patients.¹³

Talpur et al have reported 35.33% of patients with breast lumps to have a malignant lesion on investigation.⁸ Chaudhry and colleagues reported 24.2% of breast lumps in their patients to be malignant.¹⁴ This is in accordance to our findings in which 44 patients (34.6%) were reported to have malignant lesion of the

conducted elsewhere in Pakistan.^{17,18} Whereas, the mean age of carcinoma breast in the UK and USA is more than our region clearly showing differences in our social customs, religious influences and demographic variables.^{19,20}

Table II. Pattern of different types of breast lump in Pakistan and elsewhere

	Inflammatory condts	Fibrocystic disease	Fibroadenoma	Carcinoma breast
Khan Z.	10.20%	5.5%	46.5%	34.60%
Chaudhry I.	14.90%	33.80%	27.10%	24.20%
Issac U.	25%	20%	24%	30%
Talpur		15.33%	30.66%	35.33%
Kumar R.(NEPAL)	22.60%	41.20%	21.60%	7.4%
Jamal A.(SAUDIA ARABIA)	11%	22%	47%	32.30%

breast and was the second commonest lesion. Similar findings have been reported by colleagues elsewhere in Pakistan and outside.^{12,13,15} However, malignancy was not the second commonest among their patients. Moreover, Khalid et al reported to have 31.3 % of female patients to have malignant lesions in their study which was more common than benign lesions.¹⁶

Moreover, 13 patients (10.2%) had breast abscess and 7 patients (5.5%) had fibrocystic disease based on FNAC reports. Only 4 patients (3.1%) that presented to our OPD had phyllodes tumor of the breast. In our study breast abscess is the third most common presentation followed by fibrocystic disease. As shown in **Table II**, Isaac and colleagues had also reported inflammatory lesions to be common in their study i.e. 25%.⁷ Whereas, Khalid et al reported fibrocystic disease to be more common in their study. Kumar reported 22.6% patients had inflammation of the breast and 41.2% had fibrocystic changes.¹³ These differences might be attributed to the geographical, socioeconomic, cultural and religious variations.

The mean age of presentation of patients with fibroadenoma was 24.36 ± 8.6 yrs, breast abscess was 32.08 ± 13.31 yrs, fibrocystic disease 31.14 ± 8.59 yrs and breast cancer was 47 ± 15.84 yrs. In **Table III**, it is noteworthy that females are presenting at an early age with breast cancer in our set up and also in studies

Table III. Mean age of presentation of carcinoma breast

STUDY	Mean Age(yrs)
Khan Z	47 $\pm$ 15.84
Naeem M ¹⁸	40-59
Mamoon ¹⁷	48 $\pm$ 12
Jamal A(Saudia Arabia) ¹²	48.49
Kumar S(Nepal) ¹³	Above 40
UK ¹⁹	50-69
SEER, 2011(USA) ²⁰	61

Conclusion

Although benign breast lesions are more common in females than malignant ones but the frequency of breast cancer is increasing in different parts of our country. Moreover, the mean age of presentation of females with breast lump that turns out to be malignant after investigations is much less as compared to other countries, thus, it is important to screen females at a younger age to detect early breast cancer and reassure females who present with benign breast lumps.

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