Research Article

Retrospective analysis of breast lumps in a given population: an institutional study

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ABSTRACT

Background: A lump in the breast is a common complaint presenting in the surgical outpatient department of all major hospitals, with anxiety regarding a possible malignancy being extremely common. Early presentation and prompt diagnosis is essential to relieve anxiety of non-neoplastic conditions, and in case of carcinoma, it can save the patient from metastases. This retrospective study aims to audit the clinic pathologic features of patients with breast lump at teaching hospital in northern India.

Methods: A total of 138 patients were included for the present study. The data on all patients who presented with history of breast lump to the surgical outpatient department at a teaching hospital, Maharaja Agrasen Medical College, Agroha from 1st January 2013 to 31st December 2015 were retrospectively analyzed. Information on age at presentation, parity, duration of symptom before presentation, previous breast disease, side and quadrant of breast affected, maximum diameter of breast lump, clinical diagnosis made by the senior registrar or unit consultant, type of biopsy done and histology diagnosis for patients who returned with histology report were extracted from the case files. All the results were analyzed by Statistical Package for Social Sciences (SPSS) software. Chi-square test was used to measure the level of significance.

Results: in our present study, out of all the patients, 7 were males and rests were females. Out of 131 females, 3 (2.1%) were premenstrual and 35 (25.4%) were postmenopausal. 39 (28.3%) female patients were nulliparous. Lump was painless in 75 (54.3%) patients. Duration from discovery of lump to presentation was < 1 months in 24 (17.4%), 1-3 months 10 (7.2%), 3-6 months 18 (13.0%), 6-12 months 20 (14.5%), > 12 months in 56 (40.6%) and ranges from 2 days to 19 years. The duration was not documented in 10 (7.2%) patients. Left breast was more affected i.e. 65 (47.1%) cases than right sided. Bilateral involvement in around 12 cases (8.7%). Breast lump was presenting complaint in 138 patients in 3 years. The mean age of patients presenting with breast lump was 36.8 years (Range 15-70 years).

Conclusions: Breast lump was the most common presenting complaint with most patients not presenting within one month.

Keywords: Benign, Breast lump, Malignant

INTRODUCTION

Breast cancer is the leading malignancies in the world and accounts for 15.4% of all malignancies and appears to be increasing with time. Breast lump is the most common reason for presenting to surgery department.

Various types of lesion from inflammation to carcinoma can affect breast. Some lesions are common in young females while others in elderly age group. Early presentation and prompt diagnosis is essential to relieve anxiety of non-neoplastic conditions, and in case of carcinoma, it can save the patient from metastases.

The majority of patients referred to a surgery department is said to have benign disease.[1,2,3] Fibroadenoma is the most common of the benign breast diseases.[4,5] This study aims to audit the clinicopathologic features of patients with breast lump at teaching hospital in northern India.

METHODS

A total of 138 patients were included for the present study. The data on all patients who presented with history of breast lump to the surgical outpatient department at a teaching hospital, Maharaja Agrasen Medical College, Agroha from 1st January 2013 to 31st December 2015 were retrospectively analyzed. Information on age at presentation, parity, duration of symptom before presentation, previous breast disease, side and quadrant of breast affected, maximum diameter of breast lump, clinical diagnosis made by the senior registrar or unit consultant, type of biopsy done and histology diagnosis for patients who returned with histology report were extracted from the case files.

Inclusion criteria

- Symptomatic or asymptomatic patients complaining of lump in the breast with or without nodularity in the breast.
- Presence of lump in the breast and nipple discharge.
- Non lactating breast abscess.

Exclusion criteria

- Acute lactating breast abscess
- Male patients with lump in breast.

All the results were analysed by Statistical Package for Social Sciences (SPSS) software. Chi-square test was used to measure the level of significance.

RESULTS

Table 1: Age distribution.

Age (in years)	Number of patients
<20	32 (23.2%)
21-30	29 (21.0%)
31-40	26 (18.8%)
41-50	27 (19.6%)
51-60	15 (10.9%)
61-70	9 (6.5%)

Out of 138 patients included in study, 7 were males and rest were females. Out of 131 females, 3 (2.1%) were premenstrual and 35 (25.4%) were postmenopausal. 39 (28.3%) female patients were nulliparous. Lump was painless in 75 (54.3%) patients. Duration from discovery of lump to presentation was < 1 months in 24 (17.4%), 1-3 months 10 (7.2%), 3-6 months 18 (13.0%), 6-12 months 20 (14.5%), > 12 months in 56 (40.6%) and

ranges from 2 days to 19 years. The duration was not documented in 10 (7.2%) patients. Left breast was more affected i.e. 65 (47.1%) cases than right sided. Bilateral involvement in around 12 cases (8.7%). Breast lump was presenting complaint in 138 patients in 3 years.

Table 2: Sex distribution.

Sex	Number of patients
Male	7 (5.1%)
Female	131 (94.9%)

Table 3: Quadrant-wise distribution.

Quadrant involved	Number of patients
Upper outer	48 (34.9%)
Upper inner	22 (15.9%)
Lower outer	18 (13.0%)
Central	16 (11.6%)
Whole breast	15 (10.9%)
Multiple	13 (9.4%)
Lower inner	6 (4.3%)

Table 4: Clinical diagnosis of patients.

Clinical diagnosis	Number of patients
Breast carcinoma	48 (34.9%)
Fibroadenoma	46 (33.4%)
Duct ectasia	12 (8.7%)
Mastitis	11 (7.9%)
Fibrocystic diseases	9 (6.6%)
Abscess	6 (4.3%)
Galactocoel	3 (2.1%)
Phyllodestumour	2 (1.4%)
Normal	1 (0.7%)

The mean age of patients presenting with breast lump was 36.8 years [Range 15-70 years]. The lumps were increasing in size in 67 (48.5%), decreasing in 6 (4.3%), stationary in 57 (41.4%), fluctuating in 8 (5.8%). In around 16 (11.6%) patients there was previous history of benign breast disorders. Biopsy was done on 117 (84.7%) patients, 12(8.7%) refused biopsy, and 9(6.6%) patients did not require biopsy. The types of biopsies done were excision biopsy, incision biopsy, core-cut biopsy, and FNAC. Histopathology report was available in all patients, with 54 (46.2%) and 42 (35.9%) patients diagnosed respectively as having fibroadenoma, and invasive cancer. The mean age for breast cancer was 46.3 years, median 45 years, range 26-70 years with a peak of 50 years. For fibroadenoma, mean age was 23.2 years, median 22years, range 15-48 years with a peak age of 21.

DISCUSSION

A patients usually reports to the clinician or hospital with the fear that a breast lump might be cancerous.

Lumps in the breast are the most common presentation of breast diseases in both males and females. Malignant transformation of breast lump has severe psychological and physical impacts in both males and females. Though most breast lumps are benign, the true nature of a lump cannot be made from its clinical features alone. There are features that strongly suggest a lump may be benign, but a definite diagnosis is made with absolute certainty only on tissue biopsy and histology. Many patients in Northern Nigeria as in other parts of the country present with neglected breast lumps that are ulcerated, have multiple matted axillary lymphadenopathy, destroyed nipples and other features of advanced malignancy, mainly out of ignorance and poverty. Early detection and treatment of breast cancer reduces mortality and saves patients from the more expensive treatment of advanced stages.[6] A lump in the breast is a common complaint presenting in the surgical outpatient department of all major hospitals, with anxiety regarding a possible malignancy being extremely common. Hence a quick diagnosis of lump in the breast is essential.[1,2,3] Fortunately, studies have shown that majority of patients presenting to a surgery department have benign disease.

Table 5: Histopathological diagnosis.

Histopathological diagnosis		Number of patients
Fibroadenoma		54 (46.2%)
Breast cancer	Ductal carcinoma	41 (35.1%)
	Lobular carcinoma	1 (0.8%)
Gynaecomastia		6 (5.2%)
Ductal ectasia		5 (4.4%)
Inflammatory breast disorders		2 (1.7%)
Benign phyllodestumour		2 (1.7%)
Normal changes		2 (1.7%)
Galactocoel		1 (0.8%)
Antibioma		1 (0.8%)
Fibrocystic diseases		1 (0.8%)
Tuberculous mastitis		1 (0.8%)

Most of these patients still present late to the hospital with 82.6% presenting after a month of noticing the lump. Okobiaet al noted that 78% of their patients reported after 3 months of symptoms. Following breast biopsies, histopathology revealed that fibroadenoma (46.2%) is slightly commoner than breast cancer (35.9%).[7] The percentage of benign cases in our series is lower than 72.6%, 90%, 71.3% and 73% reported respectively in Eku, and Zaria.[8-10] Other researchers like Mayun, Khan, Pradhan, Siddique etc have noted fibroadenoma to be the most common cause of breast lump followed by fibrocystic disease, than breast cancer or breast cancer than fibrocystic disease.[11-14] The age range of patients with breast lump in our study was 15-70 years. The mean age for breast cancer in our environment had been noted to be 46.3 years. Our study noted that fibro adenoma was in 15-48 years age range with a mean

of 23.2 years. Of the minor breast lesions, this study found 6 cases of gynaecomastia, 2 cases of phyllodestumour, 1 case of antibioma and 1 case of tuberculous mastitis.

Nuhu et al reviewed the demographics, pattern and management of breast lumps excised at University of Maiduguri Teaching Hospital (UMTH) over a 6 year period. They retrospectively analyzed the patients with breast lumps at UMTH was carried out between January 2005 and December 2010 and concluded that Though benign diseases are still more common, a high percentage of breast lumps in Maiduguri are due to malignant disease and this is frequent in younger women.[6]

Prajapati et al analyzed the clinico-pathologic review of breast lump as a presenting complaint. They conducted a 5-year retrospective analysis of 550 patients presenting with a complaint of breast lump to the surgery department of a Teaching Hospital in Western India from January 2008 December 2012. They concluded that Breast lump was the most common presenting complaint with most patients not presenting early.[15]

CONCLUSION

According to our study, breast lump was the most common presenting complaint with most patients not presenting within one month. The finding that fibroadenoma was slightly more common than malignant breast lesions is consistent with previous studies.

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