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Original research article

Clinico-pathological assessment of breast lumps

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Abstract
Background: Breast is a glandular organ influenced by hormones in females with various structures giving rise to different types of lesion and lumps. The present study was conducted with the aim of clinico- pathological assessment of breast lump.
Materials & Methods: The present study was conducted in the department of pathology, at Sri Siddhartha Medical College, Tumkur. It comprised of 120 breast specimens obtained from surgery department.
Results: Maximum patients were seen in age group 20-40 years (70) followed by 40-60 years (30) and >60 years (20). The difference was significant (P< 0.05). Histological diagnosis was fibroadenoma in 43, fibrocystic disease in 38, chronic abscess in 7, duct ectasia in 5, fat necrosis in 3, granulomatous in 3, lactating adenoma in 1, lipoma in 1, benign phyllodes in 2, DCIS in 3, ductal carcinoma in 12 and invasive lobular carcinoma in 2 cases.
Conclusion: We found that most common age of occurrence of breast lumps was in third decade. The most common breast lump lesion was fibroadenoma followed by fibrocystic disease. Carcinoma was seen in 14 cases suggesting that a histopathological evaluation is essential to rule out malignancy.

Keywords: Breast, Lump, Histopathology

Introduction
Breast is a glandular organ influenced by hormones in females with various structures giving rise to different types of lesion and lumps. [1] Benign lesions of breast are the most common lesions which account for 90% of the clinical presentation related to breast. Of all breast disorders, palpable breast lump is second most common presentation, the pain being the first. [2]

Breast cancer is the most commonly diagnosed cancer in women throughout the world. Benign breast disease is far more common than breast cancer. [3] Even if the incidence is lower in developing countries; a significant rise has been noted in Asia and Africa over the last few years. Consequently, there has been rising awareness among women regarding this major health issue. Benign breast disease has a prevalence and impact on women's quality of life. 50% of women will develop some form of benign breast disease during their lifetime. However, 1 in 9 of those presenting with a breast lump will be diagnosed as breast cancer. Since it is not as yet preventable, its early detection gives the patient the best chance of a cure. [4]

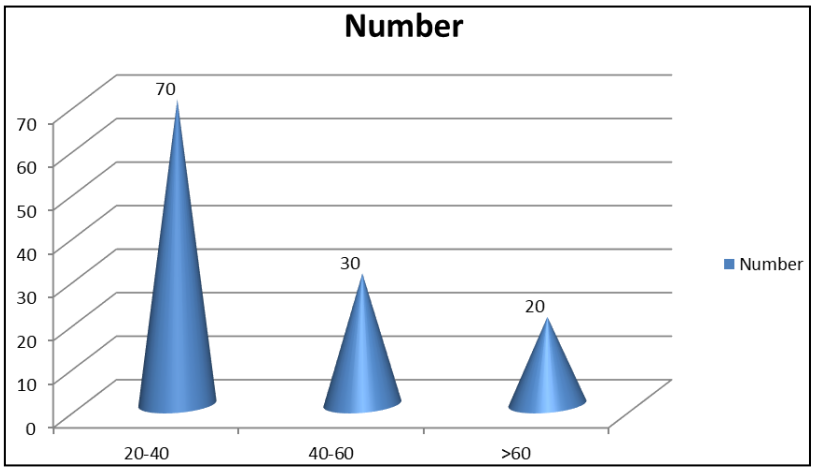
Breast screening programs have been implemented in many parts of the world. Many patients end up having unnecessary biopsies. Breast self-examination raises breast awareness but does not reduce breast cancer mortality. [5] the most effective approach to screening is yet to be defined. The present study was conducted with the aim of clinico-pathological assessment of breast lump.

Materials & Methods
The present study was conducted in the department of pathology at Sri Siddhartha Medical College, Tumkur, over a period of one year from 2016 to 2017. It comprised of 120 breast specimens obtained from surgery department with patients presenting with breast lump. Ethical approval was obtained from institute prior to the study.
General information such as name and age was recorded. Biopsy was done in the department. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

Results

Table 1: Distribution of patients

Age groups (Years)	Number	P value
20-40	70	0.01
40-60	30	
>60	20	

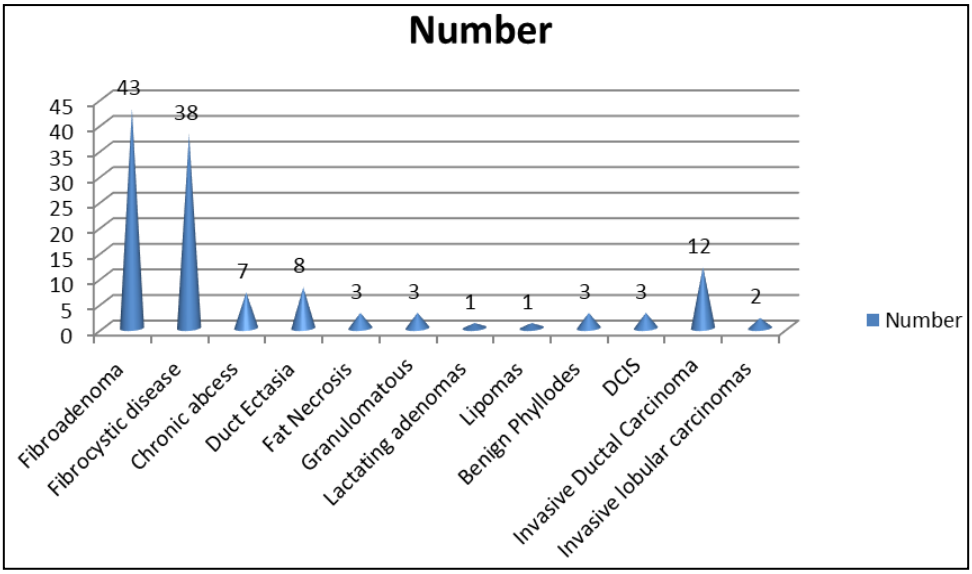


Graph 1: Distribution of patients

Table 1and graph 1 shows that maximum patients were seen in age group 20-40 years (70) followed by 40-60 years (30) and >60 years (20). The difference was significant (*P*< 0.05).

Table 2: Histological diagnosis of breast lump

Diagnosis	Number
Fibroadenoma	43
Fibrocystic Disease	38
Chronic Abscess	7
Duct Ectasia	5
Fat Necrosis	3
Granulomatous	3
Lipoma	1
Lactating adenoma	1
Benign phyllodes	2
DCIS	3
Invasive Ductal Carcinoma	12
Invasive lobular carcinoma	2



Graph 2: Histological diagnosis of breast lump

Table 2 and graph 2 shows that histological diagnosis was fibroadenoma in 43, fibrocystic disease in 38, chronic abscess in 7, duct ectasia in 5, fat necrosis in 3, granulomatous in 3, lactating adenoma in 1, lipoma in 1, benign phyllodes in 2, DCIS in 3, ductal carcinoma in 12 and invasive lobular carcinoma in 2 cases.

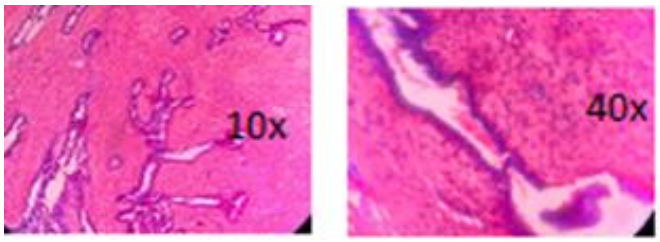


Fig 1: Showing H & E stained section of Fibroadenoma

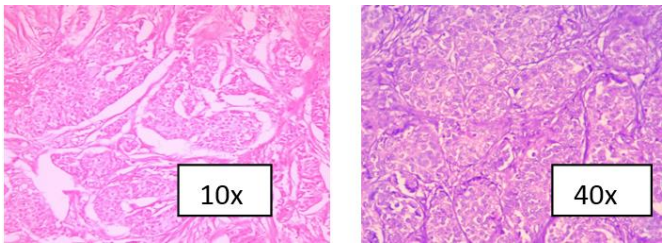


Fig 2: Showing H&E stained section of invasive ductal carcinoma

Discussion

Breast lumps present a heavy workload that the surgical department has to deal with, in a context of limited resources. The implementation of the triple diagnostic test to all breast lumps is not practicable as it would result in a delay in treatment. [6] The present study was conducted with the aim of clinico- pathological assessment of breast lump.

In present study, maximum patients were seen in age group 20-40 years (70) followed by 40-60 years (30) and >60 years (20). Vissa Shanthi *et al* [7] studied 100 breast lesions and found 28% malignant pathology on cytological grounds, on further study out of 28 cases, 23 cases were diagnosed as ductal cell carcinoma, 2 as lobular carcinoma, 1 as medullary carcinoma, 1 as malignant Phyllodes and 1 case was found to be mucinous carcinoma respectively.

We found that histological diagnosis was fibroadenoma in 43, fibrocystic disease in 38, chronic abscess in 7, duct ectasia in 5, fat necrosis in 3, granulomatous in 3, lactating adenoma in 1, lipoma in 1, benign phyllodes in 2, DCIS in 3, ductal carcinoma in 12 and invasive lobular carcinoma in 2 cases.

Fibroadenoma of the breast is a common cause of a benign breast lump in premenopausal women. Fibrocystic disease is a histological term that refers clinically to a large group of syndrome presented as lump or lumpiness.

Malik *et al* [8] in their study showed, of the 120 specimens received, 116 specimens belonged to female patients (97%). The peak age of the occurrence of breast masses was in the 3rd decade (32% occurrence). Both malignant and non-malignant lesions were present in the specimens. Among the 98 benign lesions, 45 cases were of fibroadenoma (46%), 23 cases were of fibroadenosis (23%). Among the 22 malignant lesions, 17 cases were of infiltrative duct cell carcinoma (77%).

Kelsay *et al* [9] reported that breast cancer is 100 times more common in women than in men. The incidence of breast cancer increases with age, more common in urban population and in women of higher socio- economic group. They also suggested that apart from genetic causes, change in life style is responsible for increase in incidence of malignant breast lesions. Reason for such findings is possibly that, these are tertiary referral hospital data and breast malignant cases are referred to medical college hospital from large surrounding rural, suburban and urban population.

Kulkarni *et al* [10] found that most of the patients presented with a lump. Only 23 of them had pain in the breast. 3 patients also had nipple discharge; including one with bloody discharge (One had cancer & the other two were cases of mastitis). There was no association between breast pain and breast cancer.

Conclusion

We found that most common age of occurrence of breast lumps was in third decade. The most common breast lump lesion was fibroadenoma followed by fibrocystic disease. Carcinoma was seen in 14 cases suggesting that a histopathological evaluation is essential to rule out malignancy.

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