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A Clinico-Pathological Study of Painless Breast Lump in Premenopausal Women

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Abstract

Background: Painless breast lump is the most common symptom found in maximum number of patients with carcinoma breast. It is also the most common presenting sumptom in many benign diseases of the breast. *Aims:* To study painless breast lump by clinical examination, imaging and histo-pathological examination and to know the frequency of benign and malignant breast diseases in premenopausal patients in our society. *Settings:* Dept of General Surgery, GMC, Omandurar Estate and ISO KGH, Chennai. *Design:* Prospective study. *Methods and Materials:* One hundred and five female patients with painless breast lump presented to the Dept of General surgery at GMC, Omandurar Estate and ISO KGH, Chennai during the period of April 2017 and July 2017 were studied. Diagnosis was made by a combination of clinical examination, imaging and histo-pathological examination. *Results:* Painless breast lump in premenopausal women was commonly benign (68%) followed by malignant conditions (32%). The commonest diagnosis was fibroadenoma followed by carcinoma of the breast. The common age group of fibroadenomas was between 16-35yrs and carcinoma breast was between 46-55yrs. *Conclusion:* The results of this study showed that though painless breast lump in premenopausal women was commonly fibroadenomas (46%) they also account for a significant number of cases of carcinoma breast (32%).

Keywords: Painless lump; Premenopausal women; Mammogram; Fibroadenoma; Carcinoma breast.

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Introduction

Breast is an apocrine gland - a modified sweat gland derived from ectoderm, acts as a secondary sexual organ in females. It is rudimentary in males. It acts as mammary glands in females which produces and secretes milk to feed infants [1].

Breast cancer is one of the most commonly diagnosed cancer in women throughout the world [2]. Benign breast disease is still more common than breast cancer. A significant rise in the incidence of breast diseases has been noted in developing countries over the recent years [3]. Consequently there has been increasing awareness among women regarding this major health issue.

Benign breast disease has a significant impact on women's quality of life. 50% of women will develop some form of benign breast disease during their lifetime [2]. However, 1 in 9 of those presenting with a breast lump will be diagnosed as breast cancer [2]. Since it is not as yet preventable, its early detection gives the patient the best chance for a cure.

The risk factors for breast cancer are numerous and can essentially be divided into hormonal, non hormonal and genetic risk factors [4]. Patients with a benign lump having a family history of breast cancer also have an associated increased relative risk for cancer. 50% of breast cancer patients do not have any specific risk factors [4]. Hence, breast screening programmes have been implemented in many parts of the world.

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. In developing countries, women have the option to get a clinical breast examination done by community physicians. Any breast abnormality detected is referred

to the surgical department of the nearest hospital for evaluation. These breast lumps has given a heavy workload that the surgical department has to deal with, in a context of limited resources.

The implementation of the triple assessment to all breast lumps may not be practicable as it would result in a delay in treatment. Hence, there is a definitive need for immediate and systematic assessment to carry out early pathological examination in these patients with breast lump.

Painless breast lump is a common presenting complaint in the surgical out-patient department and though many of these patients are diagnosed of having a benign breast disease a significant proportion of these patients are found to have a malignant disease of the breast. Also Painless breast lump was found to be the most common presenting symptom in 62% of patients of carcinoma breast [7].

Moreover due to the painless nature many patients tend to ignore the symptom and present at a later stage. Hence painless breast lump should not be overlooked and this study hopes to find out the proportion of benign and malignant breast diseases associated with painless breast lump and the also the age-wise distribution of benign and malignant breast diseases presenting with painless breast lump in premenopausal women.

Methods

This study was conducted in Government Medical college, Omandurar estate and ISO KGH for W&C & GH, Chennai from april 2017 to july 2017 and included premenopausal women presenting with painless breast lump. A detailed history taking and clinical examination were carried out and all the patients were subjected to USG/Mammogram and Fine Needle Aspiration Cytology/Trucut biopsy/excision biopsy.

Inclusion Criteria

All premenopausal patients with painless breast lump

Exclusion Criteria

Patients presenting with superficial skin lesions such as sebaceous cyst and skin papilloma.

Pre pubertal females with breast lump.

All postmenopausal females with breast lump.

Results

This study included a total of one hundred and five patients that were studied prospectively in the department of surgery of GMCH, omandurar Estate and KGH, Chennai.

All the patients with painless breast lump underwent a thorough clinical examination and were investigated with USG/mammography and later subjected to FNAC/Trucut biopsy/Excision biopsy.

Fibroadenoma was the commonest diagnosis and accounted for 48 cases followed by carcinoma breast (34 cases). Breast cysts were also a common diagnosis with about 13 cases.

In our study of a total of 105 patients with painless breast lump about 68% patients were diagnosed to have a benign disease (71 cases) and 32% had malignant disease. It was found that the younger patients (16-45yrs) presenting with painless breast lump mostly had a benign disease (69 out of 72 cases were benign-96%) and older premenopausal women (46-55yrs) presenting with painless lump were found to have a malignant disease mostly (94%). (Table 1, 2 and Figure 1).

Table 1: Incidence of Different types of breast diseases in painless breast lump

Diagnosis	Age16-25	Age26-35	Age36-45	Age46-55	Total
Fibroadenoma	31	15	2	0	48
Ca Breast	0	0	3	31	34
Breast cyst	2	9	1	1	13
Galactocele	1	4	0	0	5
Lipoma of Breast	0	1	2	0	3
Antibioma	0	0	1	0	1
Benign Phylloides	0	0	0	1	1
	34	29	9	33	105

Table 2: Incidence of benign and malignant lesions in painless breast lump

Diagnosis	No of pts	Percentage
Benign	71	68%
Malignant	34	32%
Total	105	100%

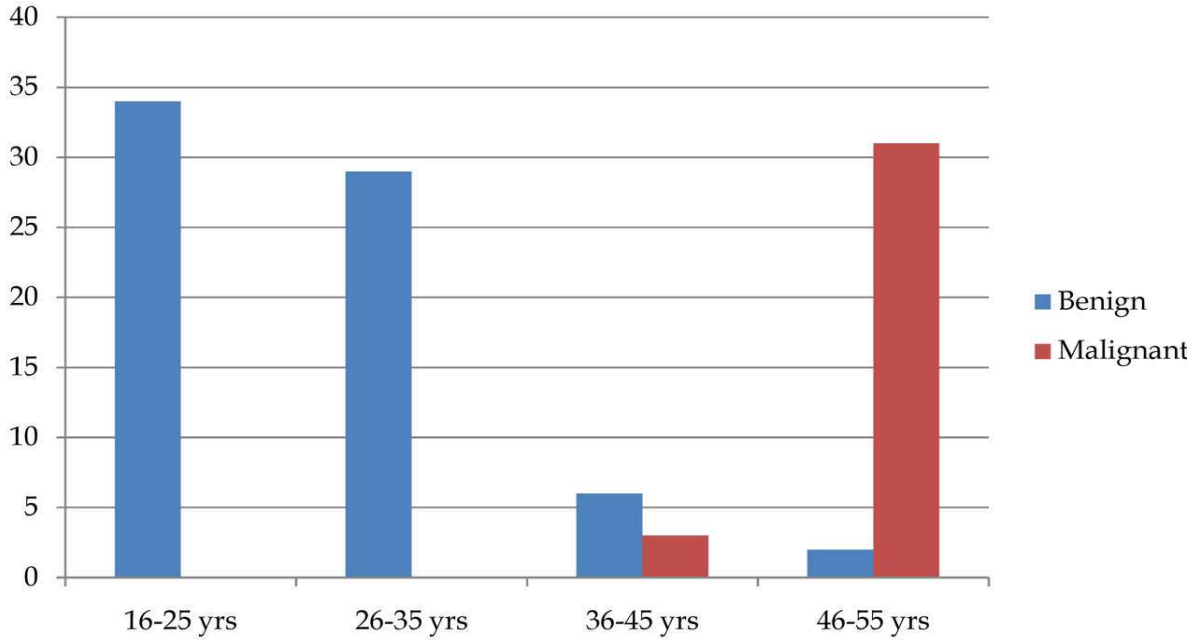

Fig. 1: Age wise incidence of benign and malignant breast diseases in painless breast lump

Ultrasonogram was done in patients less than 35 years and in those patients more than 35 years were subjected to mammogram of the breasts. In the 16-35 yrs group among 63 total cases 45 cases were given as fibroadenomas out of which one alone was found to have lipoma of the breast on FNAC. Two cases which were doubtful in USG were subjected to excision and were found to be fibroadenomas. (Figure 2).

In the 36-55 years group among the 42 cases who were subjected to mammogram 8 cases fell under BIRADS I/II/III and among those 7 were found to be benign following histo-pathological examination and one case turned out to be malignant. 34 cases fell under BIRADS IV/V and among those 33 were malignant and one case was benign. (Figure 3).

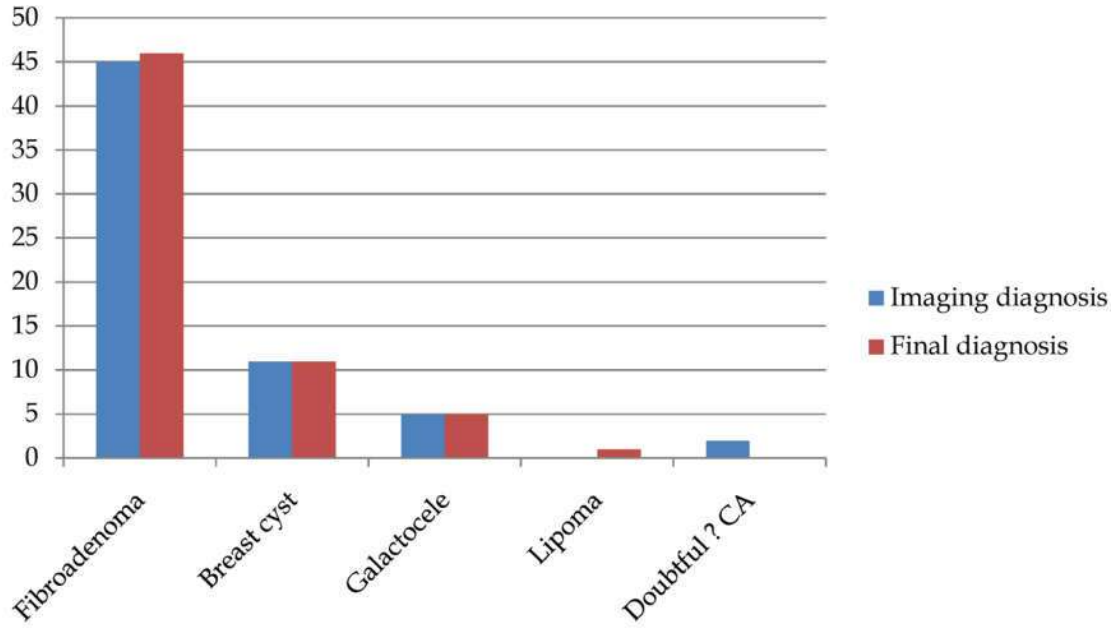

Fig. 2: USG Diagnosis and final diagnosis after Histo-pathological examination

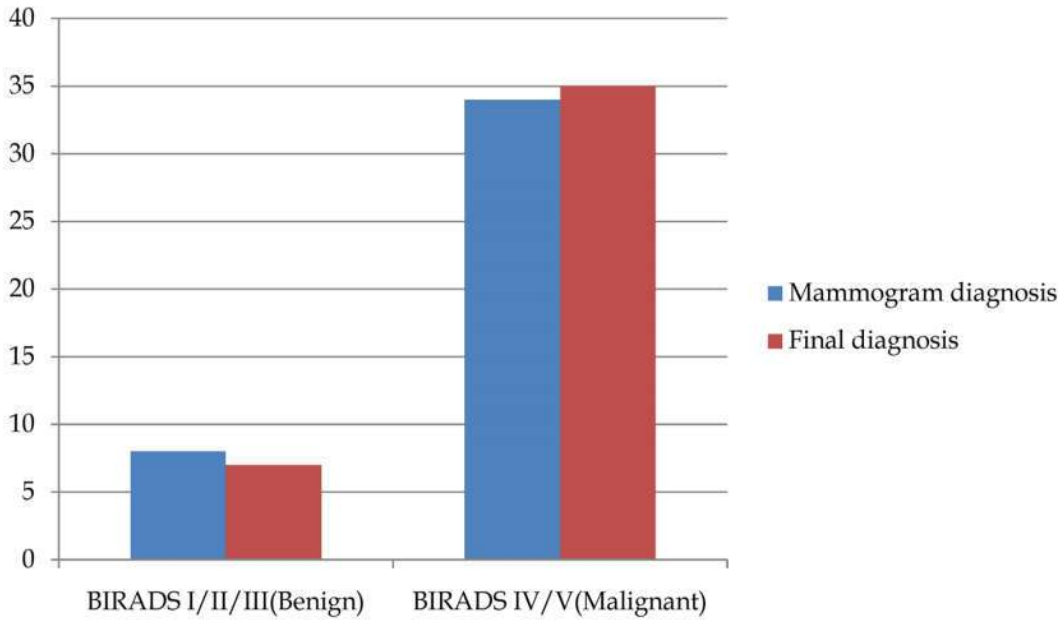

Fig. 3: Mammogram diagnosis and final diagnosis after HPE

Table 3: Histopathological diagnosis modes

Diagnosis	By FNAC	By Trucut biopsy	By Excision Biopsy
Fibroadenoma	45	0	3
Ca Breast	18	15	1
Breast cyst	13	0	0
Lipoma of Breast	3	0	0
Antibioma	0	1	0
Benign Phylloides	0	1	0

Most of the diagnosis were achieved through Fine Needle Aspiration Cytology in case of fibroadenomas (45 identified with FNAC, 3 by Excision biopsy). Carcinoma of the breast that were doubtful in FNAC were diagnosed through trucut biopsy. One patient who had a small lump and was diagnosed as fibroadenosis in FNAC was eventually diagnosed as carcinoma of breast on excision biopsy (Table 3).

Discussion

Painless breast lump is a common complaint in the outpatient department and may range from benign conditions like fibroadenoma to carcinoma of the breast. In most of the cases the painless breast lump is picked up incidentally during self examination. So all patients with painless breast lump should undergo triple assessment to make an early diagnosis.

Benign conditions account for 68% of cases in our study of painless breast lump in pre menopausal women. Of which fibroadenoma was the most common diagnosis accounting for 48 cases (46%). Peak age of incidence of fibroadenomas were between 16-25(31 cases). FNAC alone was able to pick up fibroadenomas in about 45 cases (94%). Our finding was in agreement with most of the available literature on benign breast diseases, where the frequency of fibroadenoma ranged from 46.6-55.6% [6].

Malignant conditions acounted for 32% of cases in our study. About 34 cases of carcinoma breast were diagnosed. Among these 18 cases (53%) were diagnosed by FNAC, 15 cases (44%) by Trucut biopsy and one case (3%) by Excision biopsy.

Conclusion

Painless breast lump is a common presentation in surgical OPD. These painless lump turns out to be malignant in 32% of cases, Hence painless breast lumps should be thoroughly evaluated by clinical examination followed by imaging and histopathological examination. The results of this study show that fibroadenoma is the most common diagnosis in painless breast lumps (46%), which is followed by carcinoma of the breast (32%). Hence breast lumps without pain should be handled in a systematic way to arrive at a early diagnosis and treated appropriately.

Conflict of Interest

The author acknowledges that there is no conflict of interest with regards to this article.

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