



A CLINICAL STUDY OF BENIGN BREAST DISEASE IN A PRIMARY HEALTH CARE CENTRE

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ABSTRACT

Background

Benign breast diseases (BBD) encompass a wide spectrum of non-malignant conditions of the breast. Accurate clinicopathological evaluation is crucial for differentiating BBD from malignant lesions, guiding appropriate management, and reducing patient anxiety. Triple assessment, which includes clinical examination, imaging and histopathological examination is now considered as a gold standard approach to diagnosis of breast lump. This study aims to evaluate the clinical presentations, incidence of benign breast disease and its different types.

Method

A cross-sectional, observational study of 184 female patients who attended primary health care center, with various forms of breast disease during the period from January 2015 to December 2018, was conducted. A detailed history was taken from every patient, followed by clinical examination, imaging and cytological or histological examination (FNAC or core biopsy) in all the patients. All female patients aged 18 years and above presenting with breast complaints and diagnosed with BBD were included.

Results

In this study, fibroadenoma (55.3 %) was the commonest lesion seen in the age group of 21 -30 yrs., followed by fibro adenosis (26.8 %). The commonest presentation was breast lump (82 %) followed by breast pain and nipple discharge. Breast pain or mastalgia was cyclical in majority of case.

Conclusion BBD is a heterogeneous group of disease seen predominantly in female patients in the age group of 21- 30 yrs. Triple assessment remains the key in evaluation of breast lumps. Fibroadenoma is the most common BBD seen. Appropriate counselling and treatment can go a long way in reducing patient's anxiety associated with benign breast disease.

Key words: benign breast disease, fibroadenoma, triple assessment, breast pain or mastalgia, fibro adenosis .

INTRODUCTION

Breast lesions constitute a heterogeneous group of diseases, with etiologies ranging from normal to aberration to disease, to malignancies. Benign breast Diseases (BBD) is defined as any non-malignant breast condition and encompasses a wide range of clinical and pathologic disorders. [1]

BBD are very common and one third of women are suffering from this disorder at some point of their life. Triple assessment, which includes clinical examination, imaging and histopathological examination is now considered a gold standard approach to the diagnosis of breast lump. [2,3]

The incidence of benign breast lesions begins to rise during the second decades of life and peaks in the fourth and fifth decades, as opposed to malignant diseases, for which the incidence continues to increase after menopause, although at a less rapid pace. [4-11] Benign Breast diseases are more common than breast cancer in hospital clinics. [12] Currently malignant to benign ratios of 1:10 are seen in breast clinics. [8]

In this study, we aimed to evaluate the clinical presentations and identify the incidence of benign breast disease and the relative frequency of different types of BBD.

MATERIALS AND METHODS

A cross- sectional, observational study of 184 female patients who attended primary health care centres, with various complaints of breast disease during the period from January 2015 to December 2018, was conducted. Informed consent was taken. A detailed history was taken from every patient, followed by clinical examination. Imaging and cytological or histological examination (FNAC or core biopsy) was done in all patients.

Study population

All female patients aged 18 years and above presenting with breast complaints and diagnosed with BBD were included. The initial sample size consisted of 184 cases, of which 34 were diagnosed as malignant on histopathological examination and were hence excluded from the study. The final sample size consisted of 150 cases.

RESULTS

A total of 184 patients were screened for the study. Of these 34 patients (18.5 %) were diagnosed with malignancy and 150 patients (81.5 %) as benign breast disease (BBD) based on the histopathological examination. Hence a total of 150 patients with benign breast disease were included in the study. The age of patients ranged between 22 yrs. and 53 yrs. with a mean age of presentation of 32.8 yrs. Benign breast disease was found to be most common in the age group of 21- 30 yrs. (n=78 patients, 52 %) followed by 31- 40 yrs. (n=43 patients, 28.7%) and 41 – 50yrs. (n=28 patients, 18.6%) and 51 – 60 yrs. (n=1 patient, 0.6 %). The commonest presentation seen was breast lump in 123 patients (82%) followed by breast pain or mastalgia in 24 patients (18 %). Nipple discharge was seen in 10 patients (6.6 %), of these 7 cases had associated complaints of breast pain and lump.

Among the 123 patients who had presented with breast lump, 3 cases had associated nipple discharge. Fibroadenoma accounted for 55.3 % of all the cases (n= 68 patients), phyllodes 10.6% (n=13 patients), fibro adenosis 26.8% (n=33 patients) and breast abscess 7.3 % (n=9). The histopathological architecture of fibroadenoma, peri canalicular pattern was most commonly observed in 51 cases followed by intracanalicular pattern in 14 cases and juvenile fibroadenoma was seen in 3 cases.

Fibrocystic changes or fibroadenosis was the next most common benign breast disease in this study. Among the 13 patients who presented with phyllodes, histopathology showed benign fibroepithelial lesion in majority of case. Borderline phyllodes was observed in 2 cases. Breast abscess was seen in 7.3 % of patients in this study, with peak incidence in the 3rd decade of life. In the present study, majority of the patients with breast abscess were lactating women.

Among the 24 patients, who had presented with breast pain, 4 patients had associated nipple discharge. 20 patients (13.3 %) had complained of only breast pain or mastalgia, where treated with conservative approach. Majority of the patients (14 patients) had pain in both breasts. Mastalgia was identified as cyclical in 15 patients and non-cyclical in 9 patients.

Nipple discharge was reported in 10 patients (6.7 %). Among them, 3 patients had bilateral nipple discharge only without any obvious lump or pain. The nipple discharge was serosanguinous fluid in 6 cases and blood stained discharge was seen in 2 cases and 2 cases had yellow discharge. 4 patients

were diagnosed with intraductal papilloma and for the remaining 6 patients, diagnosis was duct ectasia.

Age group	No of patients	Percentage
21 – 30 yrs.	78	52 %
31 – 40 yrs.	43	28.7%
41 – 50 yrs.	28	18.6 %
>51 yrs.	1	0.6 %
Total	150	100 %

Table 1: Age Distribution

Presentation	No of patients	Percentage
Breast lump only	120	80 %
Breast pain only	20	13.3 %
Nipple discharge only	3	2 %
Breast lump + nipple discharge	3	2 %
Breast pain + nipple discharge	4	2.6 %
Total	150	100 %

Table 2: distribution of symptoms of benign breast disease

Diagnosis	No of cases	Percentage
Fibroadenoma	68	55.3 %
Breast abscess	9	7.3
Fibroadenosis	33	26.8
Intraductal papilloma	4	
Duct ectasia	6	
Phyllodes	13	10.6

Table 3: distribution of benign breast disease on histopathology

These findings highlight the prevalence of benign breast disease in the studied population, with fibroadenoma being the most common diagnosis and majority of patients presenting in the younger age group (21 – 30 yrs.).

DISCUSSION

Benign breast disease is most seen in female patients and includes a heterogenous group of conditions ranging from normal to aberrations in the physiology, to inflammatory, benign and malignant disease. BBD clinically presents with either of the symptoms or a combination of these – breast lump, breast pain and nipple discharge. A study by Koorapati and Kishan reported 250 cases of benign breast lesions, of which 247 (98.8%) were females and 3 (1.2%) were males. [13]

In the present study, 184 were initially considered of which 150 (81.5 %) patients had benign breast disease. This correlates to other studies where majority of cases were benign breast disease. [14,15] In this study, majority of cases were found in the age group 21-30 yrs. (52%) followed by those aged 31- 40 yrs. (28 %). The incidence of BBDs begins to rise in the second decade of life and peaks in the fourth or fifth decades, whereas the incidence of malignant lesions continues to rise after menopause. [16]

In the present study, majority of cases presented with painless breast lump. This finding was observed in the studies by Jabbo et al and Boral et al. [15,16] The corresponding figure for our study was 100 %. Most of the studies have shown that breast lump is the most common presenting symptom in females suffering from benign breast disease, followed by breast pain and nipple discharge. These findings were observed in this study also. A study by Krishnaswamy, however, observed breast pain as the most common presenting symptom followed by breast lump. [18]

Fibroadenoma was the most common BBD observed in this study accounting for 55.3 %. Similar findings were seen in majority of the studies. [13-16] Fibrocystic changes or fibroadenosis (26.8%) was the next most common benign breast disease in this study. The study by Selvakumaran et al comprised of 168 patients with benign breast disease, fibroadenoma was the most common 55.9% followed by fibroadenosis 20.8%. [19] Phyllodes was observed in 10.6 % cases, majority of cases were benign fibroepithelial lesion and 2 cases showed borderline phyllodes. Breast abscess was seen in 7.3 % of patients in this study, with peak incidence in the third decade of life. In the present study, majority of the patients were lactating women.

Mastalgia or breast pain (18%) was the next most common clinical presentation. In this study 62.5 % cases had cyclical mastalgia. Nipple discharge was observed in 6.6 % case, intraductal papilloma was diagnosed on histopathological examination in 4 cases and duct ectasia in remaining 6 cases.

CONCLUSION

BBD is a heterogenous group of disease seen predominantly in female patients in the age group of 21- 30 yrs. BBD usually presents with either breast lump, breast pain or nipple discharge. All patients with a discrete breast lump should undergo triple assessment, which is a combination of clinical examination, breast imaging, and histopathological examination, for early and accurate diagnosis. Fibroadenoma is the most common BBD seen. Triple assessment remains the key in evaluation of breast lumps. Appropriate counselling and treatment can go a long way in reducing patient's anxiety associated with benign breast disease.

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