ORIGINAL RESEARCH PAPER
Volume - 10 | Issue - 04 | April - 2021 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

CLINICAL STUDY OF BENIGN BREAST DISEASES IN FEMALES OF REPRODUCTIVE AGE GROUP

General Surgery

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ABSTRACT

Introduction: Benign breast diseases (BBDs) are the group of non-cancerous condition which include a variety of diseases. The patient commonly presents with pain, lump or nipple discharge. The aim of this study is to study the patterns of BBDs and to correlate the clinical diagnosis with radiological and pathological findings.

Material And Methods: Hundred patients were included in the study who attended the OPD of General Surgery Department at Sanjay Gandhi Memorial Hospital, Rewa from June 2019 to May 2020. Detailed clinical history and physical examination was done for all patients fulfilling the inclusion criteria and clinical investigation like complete blood count, renal function test, liver function test, USG, FNAC was done.

Result: Out of 100 patients, most of the females (32%) with benign breast diseases were in 21-25 years of age group and most common mode of presentation was only pain (41%) and 2nd most common was pain with lump (37%). Unilateral breast lesions were present in 90% patients with right side of breast were more commonly involved (55% patients). Commonly involved quadrant of breast was upper outer in 41% patients followed by lower outer quadrant in 24% patients. Fibroadenoma was most common benign breast disease present in 46% patients.

Conclusion: Benign breast diseases are common in reproductive age group of female patients and fibroadenoma is the commonest of them all. In any patient presents with lump or other symptoms, the diagnosis can be made by triple assessment. It helps to rule out malignancy and provide patient's assurance regarding benign nature of disease

KEYWORDS

Benign Breast Diseases (BBDs), Fine Needle Aspiration Cytology, (FNAC), Fibroadenoma, Breast Lump, Breast Pain, Nipple Discharge

INTRODUCTION

The mammary glands are distinguishing feature of mammals. Among women, at least 30% require treatment for their breast related complaints sometime during their lifetime. Benign conditions of the breast account for maximum number of clinical presentations related to breast diseases. Benign breast conditions[1] (also known as benign breast diseases) are noncancerous disorders of breast and constitute a heterogenous group of lesions including developmental abnormalities, inflammatory lesions, epithelial and stromal proliferations and benign neoplasms [1]. The ANDI (aberration of normal development and involution) classification provides an overall framework of benign condition[2]. Most benign breast diseases are relatively minor aberrations of normal development process of the breast and related to cyclical hormonal changes during the entire reproductive cycle and during pregnancy and lactation.[3]There is a dramatic fall in incidence of benign breast diseases after menopause due to cessation of hormones released during the ovarian cycle.

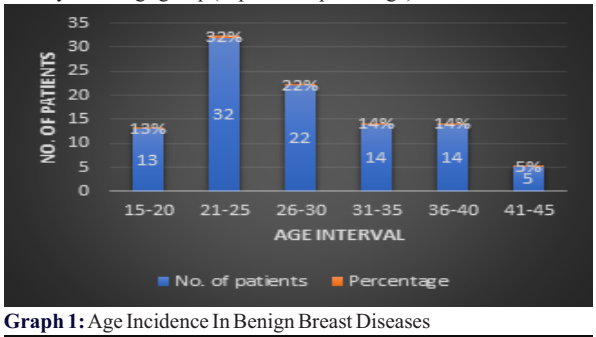
There is a range of clinical presentation in benign breast diseases and a variety of symptoms and signs. The most common symptoms presented are: Pain (47%) and Lump (37%) in breast. Other symptoms include nodularity, nipple discharge and nipple inversion. Increasing number of women are seeking medical opinion for breast pain and nodularity now a days, the main reason for which is the fear of malignancy. Thus, the benign nature of disease has to be explained to patient and patient should be reassured. Among all the patients presented to the breast clinic, 30% patient require treatment. The main aim of management is relief of symptoms, exclusion of malignancy, assurance to the patient and surgical intervention if indicated. This study is done with the object to study the spectrum of Benign Breast Diseases in reproductive age of female patients.

MATERIAL AND METHOD

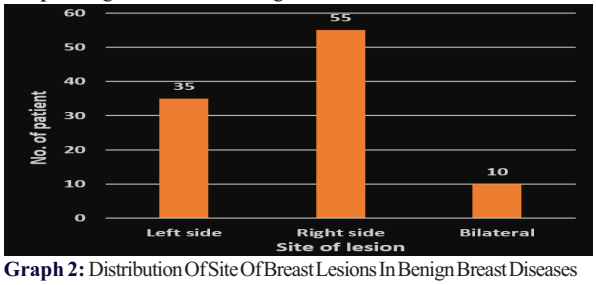
This study was carried out on females of reproductive age group (15-45 years) attending OPD of General Surgery in Sanjay Gandhi Memorial Hospital associated with Shyam Shah Medical College, Rewa (M.P.) during the period of 1st June to 31st May 2020. Patients diagnosed as benign breast disease at the time of presentation on clinical basis or after investigation like USG, FNAC to rule out malignancy. 100 cases were included in the study. A detailed history had been taken and clinical examination of the entire breast, chest wall and on areas involving the patient's symptoms was done. In any patient presents with lump or other symptoms, the diagnosis was made by triple assessment. This is a combination of clinical assessment of breast, radiological imaging and a tissue sampling for cytological or histological analysis with positive predictive value (PPV) more than 99.99%.

RESULTS

Benign breast diseases are commonly present in females of reproductive age group. In present study most of the females (32%) with benign breast diseases were in 21-25 years of age group and 2nd most common (22%) in 26-30 years of age group and very few (5%) in 41-45 years of age group (in perimenopausal age).

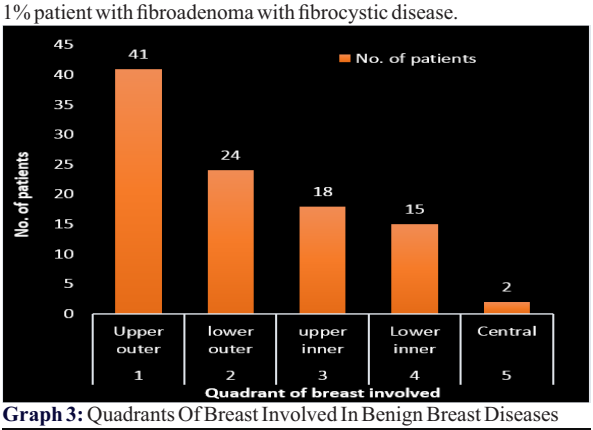


Graph 1: Age Incidence In Benign Breast Diseases

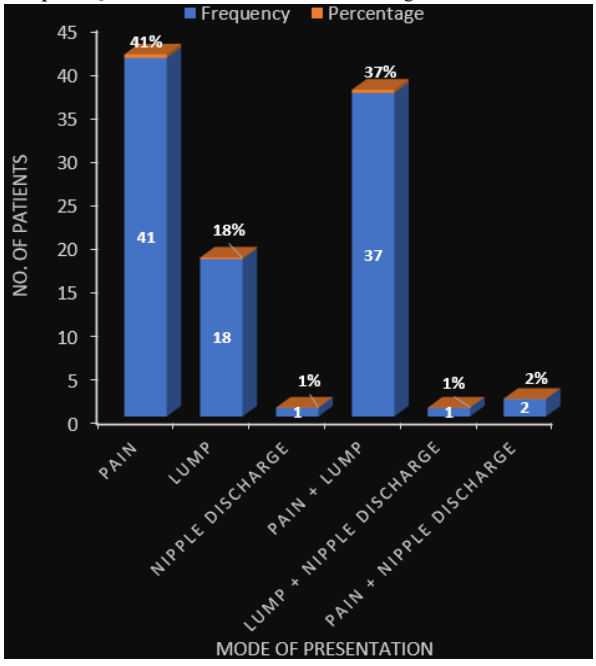


Graph 2: Distribution Of Site Of Breast Lesions In Benign Breast Diseases

In present study most common mode of presentation of females with benign breast diseases was only pain (41%) and 2nd most common was pain with lump (37%) and other modes of presentation were only lump (18%), pain with nipple discharge, pain with nipple discharge and nipple discharge only. In present study unilateral breast lesions were present in 90% patients while bilateral breast lesions were present only in 10% patients. In unilateral lesions, right side of breast were more commonly involved (55% patients) than left side of breast (35% patients). In present study most commonly involved quadrant of breast was upper outer in 41% patients followed by lower outer quadrant in 24% patients and upper inner quadrant in 18% patients. Least commonly involved quadrant was lower inner quadrant in 15% patients only. Central part of breast involved only in 2% of patients. In present study out of 100 female patients of benign breast diseases which were diagnosed on the basis of clinical examination, FNAC and USG findings, fibroadenoma was most common benign breast disease present in 46% patients. Other benign breast diseases were fibrocystic disease in 27% patients followed by fibroadenosis in 26% patients and 1% patient with fibroadenoma with fibrocystic disease.



Graph 3: Quadrants Of Breast Involved In Benign Breast Diseases



Graph 4: Mode Of Presentation In Benign Breast Diseases

Table1. Distribution Of Benign Breast Diseases Diagnosed By Clinical Examination, FNAC And USG

S. No.	Diagnosis	No. of patients	Percentage
1	Fibroadenoma	46	46%
2	Fibroadenosis	26	26%
3	Fibrocystic disease	27	27%
4	Fibroadenoma + fibrocystic disease	01	01%
5	Total (No.)	100	100%

DISCUSSION:

The present study100 cases of benign breast lesions were included in whom the clinical findings were correlated with cytological, histopathological and radiological findings.

The majority of cases (32%) in this study were encountered in the age group of 21-25 years and 2nd most common (22%) in 26-30 years of age. The least number of patients (5%) were above 40 years of age. In present study only 13% cases were in the 15-20 years of age. Findings of present study were similar to other studies done on benign breast diseases.

Koorapati Ramesh et al[4] (n=250) have also observed in their study that 60% of cases belonged to 21-30 years of age whereas only 8% cases were in the 11-20 years age.
Similarily Ilaiah et al[5], (n=60 cases) have also observed in their study that 58.3% of their cases of benign breast lesions were in the 21-30 years age group.

Mallikarjuna et al[6], reported higher values of 23.3% and 40% for this age group respectively.

Chalya et al[7], also in their study on benign breast lesions (n=346 cases), with a patient age range from 14 to 72 years observed a median age of 26 years and 69.9% of their cases fell in the 21-30 years age group.

In study done by Sangma et al[8], ages of the patients with BBDs ranged from 8 years to 68 years. The mean age at presentation was 28.4 years. 45 patients were in the age group of 21-30 years and youngest was a 6 years old girl.

In present study most of patients of benign breast diseases were presented with only pain (41%) and painful lump (37%) while other modes of presentation were lump in 18% cases and only nipple discharge in1% cases.

In study by Koorapati Ramesh et al[4], 68% breast lumps were mobile and painless, 24% breast lumps were associated with pain, 6% presented with painful breast lump and in addition had nipple discharge also and only 2% cases presented exclusively with nipple discharge.

In the study by Chalya et al[7], breast lump was the most frequent presentation in 67.6% of their patients[11]. The breast lumps associated with other symptoms such as pain and/or nipple disccarge was reported in 12.4% patients.

In study by Sangma et al[8] the commonest presentation was breast lump presented in 87 (87%) cases, out of which 27 (27%) had other associated complaints like breast pain and nipple discharge. More than one symptom was present in same patient. Among 33 (33%) patients with breast pain, 9 (9%) patients complained of breast pain (mastalgia) only and among the 8 cases with nipple discharges, only one case presented with nipple discharge only.

In the study by Ilaiah et al[5], most common presentation was of painless lump (58.3% cases) followed by painful lump. The breast lumps associated with other symptoms such as pain and/or nipple discharge was reported in 12.4% patients. Only one case presented with bilateral nipple discharge and was diagnosed to have duct ectasia.

In present study pain was the most common symptoms at the time of presentation while in other similar study lump was the most common mode of presentation. This is because of low socioeconomic status, low literacy rate and unawareness regarding role of breast self-examination in early detection of breast diseases in study population. Pain is a subjective finding and as patients presented with complain of breast pain this was included in history and there was absence of tenderness in breast during examination.

In present study right breast lesions were more common present in 55% cases than left breast lesion (35%) and bilateral breast lesions were present only in 10% cases. In this study most common quadrant of breast that was involved is upper outer quadrant (41%) followed by lower outer quadrant in 24% cases, upper inner quadrant in 18% cases and least common involved quadrant was lower inner in 15% cases. In this study most common benign breast disease was fibroadenoma in 46% cases followed by fibrocystic disease in 27% cases and fibroadenosis in 26% cases. These findings were similar to other previous studies.Chalya et al[7], also reported right breast involvement

in 53.8% cases and left breast involvement in 42.8% cases.11 Bilateral breast lesions were found in 3.4% patients in their study. In their study majority of cases of breast lumps (63.5%) were in the outer upper quadrant and least (6.8%) in upper inner quadrant area.

In a study conducted by Mallikarjuna et al[6] the most common quadrant of breast that was involved was Upper outer quadrant followed by lower outer quadrant, upper inner quadrant and least commonly involved was the lower inner quadrant.

Sangma et al[8], in their study reported that right breast lesions were present in 48% cases and left breast involvement in 40% cases. Bilateral involvement was seen in 12% cases. Fibroadenomas found in 52.74% cases of the benign breast lumps in this study and peak incidence of fibroadenoma were in the 2nd-3rd decade of life. 2nd common condition was fibrocystic changes and most of these patients belonged to the 3rd-4th decades of life.

In study done by Brajesh Kumar et al[9], most commonly involved quadrant was upper outer quadrant in 39% cases followed by lower outer in 25% cases, upper inner in 19% cases and least commonly involved was lower inner quadrant. Most common benign breast disease was fibroadenoma in 42% cases followed by Fibro adenosis in 16% cases.

Upper outer quadrant lesions were more common in present study and similar results were also present in other studies. As more glandular tissue is present in upper outer quadrant of breast so this is the reason for more frequent involvement of upper outer quadrant in breast diseases.

CONCLUSION:

Benign breast diseases are one of the most prevalent group of conditions presented and treated at Surgery outpatient Department. With increasing awareness regarding health, education and due to fear of malignancy most of women are now seeking medical opinion for their breast related problems.

Benign breast diseases are more common in 21-25 years of age group and most commonly encountered benign breast disease was fibroadenoma breast in 46% cases followed by fibrocystic disease in 27% cases and fibroadenosis in 26% cases.

In patients of benign breast diseases, the mainstay of management is to rule out malignancy, patient's assurance regarding benign nature of disease and relief of symptoms related to breast diseases.

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