



A CLINICAL STUDY OF BENIGN BREAST DISEASES IN A TERTIARY CARE HOSPITAL

General Surgery

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ABSTRACT

To study the distribution of benign breast disease with respect to demographic factors and to correlate relation if any, between the type of benign breast disease and quadrants. To correlate between clinical diagnosis and FNAC to Histopathological Examination (HPE) regarding the accuracy of diagnosis. To do at least 1 year follow up, to evaluate the outcome of the treatment

KEYWORDS

Benign breast disease, Triple assessment.

INTRODUCTION:

It has been noted that noncancerous pathology of the breast has always been neglected, compared to breast cancer in spite of the fact that benign conditions account for 90% of the clinical presentation related to the breast.

About 5-55% of all women suffer from breast disorders in their life time. Benign disorders of the breast is usually seen in the reproductive period of life, is thought to be largely hormone induced and there is a dramatic fall in the incidence, after menopause due to cessation of clinical ovarian stimulation. Benign breast disease is 4-5 times more common than breast cancer.

The concept of ANDI-Aberrations of Normal Development and Involution is gaining acceptance. Benign proliferations of the breast are often considered as aberrations of normal development and involution. The cyclical changes due to variations in estrogens and progesterone result in increased mitosis around days 22-24 of the menstrual cycle but apoptosis restores the balance across the cycle.

ANDI, first proposed by Hughes is now universally accepted. This concept allows conditions of the breast to be mapped between normality, through benign disorders to benign breast disease.

The clinician should clearly differentiate between benign and malignant conditions of the breast, and reassure the patients after serious pathology is excluded, as it has a major psychological effect on them.

METHODS:

The source of the material for the study is from the patients attending surgical out patient department and inpatients of the surgical wards at a Tertiary Hospital between July 2014 and July 2016, 100 cases were studied.

Inclusion Criteria:

Patients with complaints of pain in the breast associated with lump or nodularity in the breast.
Presence of lump in the breast
Nipple discharge

Exclusion Criteria :

Acute lactating breast abscess.
Biopsy proven malignancy of the breast lump.

Mode of Selection of Cases:

Screening of cases by clinical examination in OPD and by advising appropriate investigations.

Patients were studied and **analyzed in detail**, with regard to;
History
Clinical Examination
FNAC
Ultrasound/Mammogram (in certain cases only)

Based on the provisional diagnosis, patients were subjected to surgery which was usually excision or incision and drainage as the case required. Preoperative preparation was done by giving prophylactic single dose of antibiotic in non-infected cases.

Cases were again analyzed based on :

Operative findings
Histopathological findings

Post operative course and outcome. Patients were followed up for a maximum period of 1 year to detect any recurrence.

RESULTS:

In present study the youngest patient was 13 years old and the oldest patient was 65 years old. Most of the patients are in the age group of 16-30 years. Of the 100 patients, the benign lesions of the breast presenting in the second and third decade of life was 58%, and was 31 % in the third and fourth decade of life, and less than 10 % below 15 years of age and above 45 years of age. Of 100 cases in present study 8 were men (8%) while 92 were women (92%).

The ratio of male: female was 1:11.5. All 100 patients of the study were analyzed based on symptoms they presented, of these almost 73% presented with Lump in the breast, 25% presented with a painful lump, only 2% presented with Nipple discharge.

Of the 100 patients in this study, 60% of patients presented within 6 months, and 15% of patients presented between 6 months to one year, Younger patients presented earlier than older patients.

In our study, the data analyzed to determine which breast was more involved in benign breast disease. Incidence of disease is more common in the Left breast (48%) when compared to right breast (43%), the p value of the study is <0.013, which is statistically significant.

Based on the quadrant of breast which is most commonly involved the data is obtained as below .

The Upper Outer Quadrant of breast is most commonly involved (50%). P value <0.005, statistically significant..

The diameter of the lumps ranged from less than 2 cm² to 5 cm² or greater than 5 cm². The smallest lesion was 1 cm² where as the largest diagnosed was 10 cm².

In our study,

fibroadenoma was the commonest lesion – 68%
fibrocystic disease was next more common(12%)
followed by gynaecomastia 8%, breast abscess is around 3%
all other benign diseases are less than 10%.

The diagnosis is compared based on the FNAC and HPE report.

Comparison of Clinical Diagnosis with FNAC of Fibroadenoma - The sensitivity of the study is 97.0%.

Comparison of FNAC with HPE of Fibroadenoma – The Sensitivity of the study is 93.9%.

Comparison of Clinical Diagnosis with FNAC of Fibrocystic Disease – 12 cases with lesions of fibrocystic disease, examined clinically were subjected to FNAC and were proved as fibrocystic disease. Sensitivity of clinical diagnosis is 91.6%.

Comparison of FNAC with HPE of Fibrocystic Disease – Showed sensitivity of 84.7 %.

Overall sensitivity of Clinical diagnosis against FNAC is 91.3%.

Overall Sensitivity of FNAC against HPE is 87.22%

CONCLUSION:

The present study of benign breast disease in this teaching hospital revealed that they are more frequent than generally expected. They were most frequent in the reproductive age group and in the upper outer quadrant with fibroadenoma being the most frequent problem. There was positive correlation between clinical diagnosis, FNAC to HPE with respect to fibroadenoma and fibrocystic disease. Surgical treatment and medical line of management respectively for these cases were successful with resolution of pre-operative symptoms.

The present trend of conservative management of most benign breast disorders has reduced number of surgical procedures for these conditions. However in view of the anxiety regarding symptoms, distance to be traveled, poor socioeconomic conditions leading to difficulty in follow up, quite few patients opt for an early surgical method of treatment for the resolution of symptoms.

DISCUSSION:

From the above data in this study it is evident that 2 groups of benign breast disease i.e., Fibroadenoma and Fibrocystic disease constitutes 80% of all benign breast diseases.

In a study by David M Dent²⁵, 63 young women were diagnosed to have fibroadenoma. 31% resolved and a further 12% became smaller over 13-24 months. Single fibroadenomas had a higher tendency for regression.

The total number of fibroadenomas in the present study are the highest number constituting 68.

Out of these 68 cases, 60 cases (87.5%) were single fibroadenoma confined to one breast only. There were 3 cases (4.6%) of multiple fibroadenoma. There were 5 cases (7.8%) of bilateral fibroadenoma. In this series, the upper outer quadrant was involved in 50%. In our study it was found that right breast in fibroadenoma was involved in 43% and Left breast in 48% cases and 9% cases-bilateral, where as in Oluwale (New York), right breast involved in 45%, left breast 42%. Bilateral involvement in 14% of cases.

Robet Mc Divitt M.D & Judy A. Steven's study concluded that Women with BBD without hyperplasia had an odds ratio of 1.5, women with hyperplasia without atypia had an odds ratio of 1.8, and women with hyperplasia and atypia had an odds ratio of 2.6.

Fibroadenoma was an independent risk factor for breast cancer. These findings suggest that women with BBD with epithelial hyperplasia either with or without atypia and women with fibroadenoma should be monitored carefully because of their elevated risk for breast cancer

In this series, it was found that the fibrocystic disease constituted 12 cases i.e., 12%. This was comparable to the study of Oluwale who had 20% fibrocystic disease in his series.

Fibrocystic disease was more frequent in this series between 16-25 years. The upper outer quadrant was commonly (50%) involved.

Most of the lesions of fibrocystic disease were between 2-4 cm in diameter and surface was nodular. Out of 12 cases of fibrocystic disease, 7 cases were treated conservatively and 5 cases were treated

with excision. Conservative treatment with capsule of Evening Primrose Oil or Tab. Danazol for all cases for 3 months. Both responded well. .

This study encountered 3 cases (3%) of non-lactating breast abscess cases. The earliest case presentation was 2 months since the onset of symptoms, and other two cases presented with 6 months and 8 months history. Average time of presentation was 3-6 months.

All three patients were treated by incision and drainage, under the cover of antibiotics. One case came with recurrence for which repeat I&D done. HPE revealed chronic granulomatous mastitis and started on Antituberculous treatment with which good response was observed. The overall incidence of gynecomastia was between 16-30 years at 62% and 37% in the older age groups.

Nontal in his study of 306 men showed that an incidence of 11% in youths in their late tens, gradually increased to 51% over 50 years. Bilateral involvement was present in 63% of 94 patients in a separate study

This series had a total of 8 patients (8%) the duration of symptoms varied from 2 months to 1 year, most patients in the age group of 20 years and 25 years.

They were treated by subcutaneous mastectomy. Moore and Associates postulated that the cause was peripheral conversion of adrenal androgens to oestrone and oestadiol. It seems that secondary gynecomastia is also due to hormonal imbalance. Only about 10% of cases are true unilateral.

This study encountered 3 cases (3%) of phyllodes tumor (Benign variety) Two patients underwent simple mastectomy and another one underwent wide excision. Not all phyllodes tumors grow to large sizes, 1 out of 84 cases in Haagensen series⁵⁶ were 1-3 cm in diameter Geschicker found 2.3% patients had dilated ducts in a series of 3107 women with benign disease of the breast. Two thirds of these women were over 40 years and the oldest was 72 years

In this series there was 1 case (1%) of duct ectasia which presented in 3rd decade. One case presented with -lump, pain and serous discharge.

FNAC, and ductogram was also done.

Microdochectomy was done. HPE reported as duct ectasia.

In this series there was 1 case of Duct Papilloma which presented in 5th decade. case presented with lump and nipple discharge and clinically diagnosed as Fibrocystic disease. FNAC revealed as Duct Papilloma. Microdochectomy was done. HPE also reported as Duct Papilloma.

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