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Clinico-Pathological Study on Benign Breast Diseases in Gurugram NCR

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Abstract
Background: *Aim ofthe study is to see the patterns of benign breast disease in females and males and to co-relate with the various pathological findings. Benign breast diseases constitute a heterogeneous group of disease including developmental abnormality, epithelial and stromal proliferation, inflammatory lesions and neoplasms. Benign breast lesions deserve attention because of their increased prevalence and impact on patient's life and progression to cancer in some breast lesions.*
Methods:*Two hundred patients with breast lesions who attended the Surgery Outpatients Department inSGT FMHS, UNIVERSITY, Budhera,Gurugramwith various forms of benign breast diseases during the period from July 2014 to July 2017, were studied. Early diagnoses by doing a triple assessment like a clinical history and examination, FNAC and imaging methods like ultrasonography or mammography were made. The clinical diagnoses were compared with the cytological or histological findings wherever possible and were evaluated for their accuracy.*
Results:*Out of 200 benign lesions, 184(92%)were found in females and 16 (8%) were found in males. Commonest benign breast lesion was fibroadenomafollowed by fibrocystic disease, mastitis ,breast abscess , fat necrosis, epithelial hyperplasia,and atypical ductal hyperplasia in females and gynaecomastia in males. Out of the 200patients , 160 patients who presented with breast lumps followed by vague nodularity with pain (31) followed by discharge(9). We detected 7 cases of atypical ductal hyperplasia and 4 cases with florid epithelial hyperplasia, which had high risk for developing invasive carcinomabreast . Theseall cases were treated in our hospital andadvised for follow up.*
Conclusion:*Benign breast diseases are common in female patients and fibroadenoma is the commonest lesion followed by fibrocystic disease. Age distribution pattern reveals most of the cases of benign breast lesions were found in 3rd decade followed by 4th decade. Triple assessment provided a quick diagnosis and patient was treated accordingly and advised for follow up.*
Keywords: *Benign Breast Disease, Fibroadenoma , Triple Assessment*

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I. Introduction

Benign breast disease is the most common cause of breast problems in females and it is more frequent than the malignant ones [1-6]. Benignbreast disease are heterogenous group of disorders comprising of inflammatory disorders, benign and malignant neoplasms and it is a common problem in the developing countries [7]. It is the most common cause of breast problems in females and it is 10 times more common than breast cancer in the western world[1]. Benign breast lesions deserve attention because of their high prevalence, their impact on patient's life and due to cancerous potential of some high risk breast lesions .Fibroadenoma ofthe breast is a common cause of a benign breast lump in premenopausal women[8,9].Fibrocystic disease is a histological term that refers clinically to a large group of syndrome presented as lump or lumpiness.Incidence of benign conditions of breast is significantly higher than malignant conditions. M. Kumar *et al* (2010) assertedthat in Indian rural population the benign breast diseases are 5 to 10 times morecommon than breast cancers[10].There is a wide spectrum of benign breast disorders in India but its reporting has beenovershadowed by that of breast cancer. Benign breast disorders have an incidence of 1.5/1000 oftotal hospital admissions, 6.4/1000 of surgical admissions and 8.1 /1000 of adult femaleadmissions[11]. A recent pathological review shows fibroadenoma as the most common lesionfollowed by fibrocystic diseases of breast. Hence awareness and terminologies of benign breast diseases should be there amongst general population and clinicians. Early

diagnosis will help in better management of the case, reduce undue anxiety of the patient in benign cases and reduce morbidity and mortality.

II. Material And Methods

The present prospective study was done in department of Pathology,SGT FMHS UNIVERSITY,BUDHERA, GURUGRAM . A total of 200patients were attended with breast symptomatology i.e., breast lump, vague nodularity with pain and discharge over a period of months during July 2014 to July 2017. These patients were sent to us by surgery outpatient department for fine needle aspiration cytology and thencases were studied.Wherever we were not sure of the diagnoses,advised for histopathological examination.lumpectomy specimens received were examined grossly for their size, shape, colour. Cut surfaces were noted for colour, consistency, and secondary changes such as necrosis, cystic degeneration, haemorrhage. Sections were taken from appropriate areas , processed and stained with routine haematoxylin and eosin stain and studied. Benign breast tumors and inflammatory lesions were included in this study while malignant tumors were excluded.

III. Results

The present study included a total of 200 patients with breast lumps, out of which 184 were females and 16were male. The diagnoses were made after clinical examination and subsequent Fine Needle Aspiration Cytology and in suspicious cases confirmed by histopathological examination.Out of the 200 patients who were studied, 160 patients who presented with breast lumps followed by vague nodularity with pain (31) followed by discharge(9). We detected 7 cases of atypical ductal hyperplasia and 4 cases with florid epithelial hyperplasia, which had high risk for developing invasive carcinoma. Breast lesions in males, 12 cases of gynaecomastia were categorized with fibroadenoma, three cases were reported as lipomatous lesion and one was metastatic tumor, suspecting primary was in lungs . Most of the breast lesions were found in upper outer quadrant and lower outer quadrant of right breast. Age distribution pattern reveals most of the cases of benign breast lesions were found in 3rd decade followed by 4th decade of life and Fibroadenoma(51%) was the most common lesion among all benign breast lesions.

Table 1: Distribution pattern of benign breast disease.

Cases	No.of cases (%)
Fibroadenoma	102(51%)
Fibrocystic disease	57(28.5%)
Mastitis	11(5.5%)
Breast abscess	6(3%)
Fat necrosis	4(2%)
Epithelial hyperplasia	11(5.5%)
Duct ectasia	2(1%)
Atypical hyperplasia	7(3.5%)

Table 2: Age Distribution pattern of benign breast diseases.

Cases	Age group in years
Fibroadenoma	18 – 40
Fibrocystic disease	28 – 48
Mastitis	30 – 50
Breast abscess	18 – 40
Fat necrosis	38 – 55
Epithelial hyperplasia	30 – 45
Duct ectasia	45 – 55
Atypical hyperplasia	35 – 60

IV. Discussion

Patients presenting with breast complaints, especially lump is a common finding and a cause of significant anxiety in view of extensive public awareness. It therefore becomes imperative for a pathologist to distinguish benign from malignant conditions for appropriate treatment. A 200,000 breast disorders are identified annually and it is noted that most of the palpable lesions are benign. In the present study, out of 200 breast lesions received in pathology department,we advised follow up every 3 months for both the low and high risk categories, since some studies have the progression of the lesions to invasive cancers [1]. Hartmann et al stated, histologic features, the age at biopsy, and the degree of family history are the major determinants of the risk of breast cancer after the diagnosis of benign breast disease [12].Breast diseases are common in women because estrogen cyclically stimulates breast development during their reproductive life, while in men the breast remains largely poorly developed providing formidable anti-neoplastic resistance [13] .Fibroadenoma(51%) was the most common lesion in our study among all benign breast lesions; similar finding was noted by Bagale et al, Mallikarjuna et al, Prajapati et al and Pudale et al [14,15,16,17] . Sangma et al [18] noted 48% lesions in right breast and 40% in left breast, in our study most lesions were in right breastand in upper outer quadrant and in 3rd and 4th decade of life . Similar findings was noted by Prajapati et al noted 80.64% of cases in 21-30 years,Mudholkar et al noted, the upper outer quadrant was most commonly involved (48%) with average size of fibroadenoma of 3.7cm.[19]. Prajapati et al, Bagale et al, and Shashikala et al noted most of the cases in 4th decade while Sangma et al noted most of cases in 3rd and 4th decades [20].Karki et al noted 1% cases of fat necrosis [21]. Fat necrosis in our study was found to be 2% of all breastlesions, the average age of patients was 45 - 50 years for fat necrosis. Bagale et al reported breast abscess as fourth major category constituting 6.51% of all benign lesions with most of the cases (4.1%) in 3rd decade of life[22].Gynaecomastia constitutes 6% of all benign lesions in present study,Karki et al noted 4% cases of gynecomastia[21]. Ultrasonography can effectively distinguish solid masses from cysts .Microcalcifications on mammographic studies indicates malignancies [23]

V. Conclusion

For correct diagnosis of breast diseases, backgroundknowledge of general features of individual breastdiseases like incidence, age distribution, symptoms andpalpatory findings are very important. Breast self-examination and health education to females is very important in cases of benign breast disease. It is most commonly seen in 18-40years of age group. Fibroadenoma is the most common benign breast disease. Most of the patients presented with painless lump in 3rd decade followed by 4th decade in upper outer quadrant and lower outer quadrants of right breast. Triple assessment with Histopathology(in few suspicious cases) plays an important role in the diagnosis of benign breast diseases. Ultrasonography has a sensitivity of 89 percent and a specificity of 78 percent in detecting abnormalities in symptomatic women. Ultrasonography can effectively distinguish solid masses from cysts .Microcalcifications on mammographic studies indicates malignancies .When correlated with clinical history , mammographic and ultrasonographic findings, the cytological and histopathological examination led to early diagnosis of a benign breast disease.Benign breast disease is aneglected entity despite the fact that it constitutes themajority of breast problems.

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