



ORIGINAL ARTICLE

Evaluation of benign breast diseases.

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ABSTRACT... Objectives: To find the frequency of benign breast diseases presented to outdoor patient department and to exclude malignancy. **Study Design:** Descriptive Case Series Study. **Setting:** Department of General Surgery, Hayatabad Medical Complex, Peshawar. **Period:** July 2021 to June 2022. **Material & Methods:** Ninety five females presented to OPD with complaints of breast pain, lumpy, nipple and breast discharge. All patients were investigated through triple assessment. Mammography and trucut biopsy were performed in selected cases. Diagnosed cases of breast cancer and those picked up through investigations, were excluded. Data was analyzed through SPSS. **Results:** The age range was 11 years to 71 years with a mean age of 28 years (SD \pm 7.55 years). Forty three (45.3%) patients presented in the 3rd decade, followed by 26 (27.4%) in the 2nd decade of life. The most common conditions encountered were fibroadenoma in 42.17% (n=40) cases, mainly in 3rd decade. Inflammatory conditions like acute mastitis and abscess formation was found in 21.05% (n=20) Cases. Fifteen (15.8%) patients had fibrocystic diseases, in the 3rd and 4th decades. **Conclusion:** Fibroadenoma is the commonly encountered benign breast disease in women in the 3rd decade. FNAC is a quick and reliable investigation to exclude malignancy and relieve mental stress in women.

Key words: Benign Disease, Mastalgia, Nipple Discharge.

INTRODUCTION

All types of nonmalignant conditions of the breast, are included in the Benign Breast Diseases (BBDs). A female with a breast lump, is one of the most common diseases, Presenting to either a breast or general surgeon. The increased awareness about a breast lump, has resulted in an increased incidence of malignant breast tumors in females.¹ Any delay in diagnosis of such benign conditions increases patient's anxiety and mental stress.²

Triple assessment which include clinical examination, ultrasonography and fine needle aspiration cytology (FNAC) or Trucut biopsy under local anaesthesia quickly reveals the true nature of the disease and relieves patient's tension and anxiety by giving firm reassurance.²

FNAC is a reliable diagnostic method for small breast lesions (<1.0 cm). The results can be interpreted as inadequate, benign, suspicious,

borderline and malignant. Its specificity is 99.6%, Sensitivity 97.4%, positive predictive value (PPV) 99.6%, negative predictive value (NPV) 97.6% and accuracy is 98.5%.³ BBDs includes a variety of conditions lesions with different presenting complaints.⁴ It includes mastalgia, nipple discharge, breast abscess, acute /chronic mastitis, granulomatous mastitis, cyst, galactorrhea, ductal papilloma, traumatic fat necrosis and benign tumours like fibroadenoma and Phylloides tumour. The presenting complaints are lumpy breast, mastalgia, nipple discharge and inversion.³ In literature, there is an upward trend in the presentation of breast diseases. Therefore an early diagnosis through triple assessment is of utmost importance to reveal its true nature and subsequent management.⁵ Although BBDs are nonmalignant conditions but some of them are associated with increased risk of developing malignant transformation in the long run.^{6,7} This increased risk is associated

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with atypical hyperplasia, but in the cases of non-proliferative lesions, the risk is low. The increased risk of developing breast cancer is specifically associated with certain risk factors like family history and diagnosing BBDs in advanced age. So early consultation and diagnosis is mandatory to relieve unnecessary mental stress regarding breast malignancy.⁸

The purpose of this study is to find the frequency of BBDs and exclude breast cancer in all those women who presented to outdoor patient department, with the complaints of benign breast disease.

MATERIAL & METHODS

This descriptive study of 95 females, was conducted at the department of surgery, Hayatabad Medical Complex, Peshawar, from July 2021 to June 2022. Diagnosed cases of breast cancer and these diagnosed through investigations, were excluded from the study. The study was approved by ethical committee (HMC-QAD-F-00).

A predesigned proforma which included patient's age marital status, menarche age, age at the time of first pregnancy, number of pregnancies, breast feeding, use of contraceptive pills and age of menopause. All patient undergone general physical examination and thorough clinical examination of the bilateral breasts and axillae. Ultrasound scan was performed in all cases. Mammography was performed in selected cases like those with nipple discharge and inversion. All patients were subjected to fine needle aspiration cytology (FNAC) to exclude malignancy. In suspicious cases, Trucut biopsy of incisional/

excisional biopsy was performed. In cases nipple discharge, specimen was sent for cytology and culture/sensitivity. After confirming the benign nature of the lesion, patient was reassured about no cancerous condition and subsequent management was discussed. Data was collected and analyzed using SPSS version 16.

RESULTS

In this descriptive study of 95 cases, the age range was 11 to 71 years. The mean age was 28 years (SD \pm 7.5 years). The main presenting complaints were pain, lumpy breast and nipple discharge.

In this study 45.3% (n=43) patients were in the 3rd decade of life, followed by 27.4% (n=26) in the 4th decade and 12.6% (n=12) in 2nd decade.

Ten (10.5%) patients presented in the 5th decade, 03 (3.1 %) in the 6th and 01 (1.1%) in the 7th decade of life.

In our series, the most common lesions encountered was fibroadenoma in 42.4% Cases. Fibroadenoma was commonly found in the 3rd decade. Inflammatory Conditions like mastitis and abscess was the 2nd common pathology, picked up in 21.05% cases. Inflammatory conditions were mostly found in third and fourth decades. Phyllodes tumour was diagnosed in 8.4% females, mainly in third decade. Fibrocystic disease (5.3%) was also common in young females. Mastalgia (15.8%) was widely distributed among all age groups. Duct ectasia (4.2%) and galactocoele (2.1%) was found in 3rd and 4th decades. One (1.05%) female of 71 years, had duct papilloma.

Pathologies	11-20yrs	21-30yrs	31-40yrs	41-50yrs	51-60yrs	61-71yrs	Total
Inflammatory conditions (Acute/Chronic mastitis)	3	8	6	2	0	1	20(21.05%)
Fibroadenoma	7	20	8	4	1	0	40(42.1%)
Phylloid Tumour	0	5	2	1	0	0	8(8.4%)
Fibrocystic Disease	0	3	2	0	0	0	5(5.3%)
Mastalgia	2	4	5	3	1	0	15(15.8%)
Duct Ectasia	0	2	2	0	0	0	4(4.2%)
Galactocoele	0	1	1	0	0	0	2(2.1%)
Ductal Papilloma	0	0	0	0	1	0	1(1.05%)
Total	12 (12.6%)	43 (45.3%)	26 (27.4%)	10 (10.5%)	3 (3.1%)	1 (1.1%)	95 (100%)

Table-I. Benign breast diseases age wise distribution (n=95)

DISCUSSION

It is a common recommendation that woman with a discrete breast lump must be subjected to triple assessment to reach a definitive diagnosis as early as possible. The incidence of BBDs starts in the 2nd decade and reaches its peak in the 4th and 5th decades as compared to malignancy which continues to rise after menopause.⁴

In the current study, fibroadenoma (42.1%) was the most common lesion. Majority (n=20) of the patients were in their 3rd decade of life, followed by 4th (n=8) and 2nd (n=7) decades.

These figures are comparable to those reported by Dahri FJ and associates in a study of 200 cases.⁵ Khanzada TW noted 27% fibroadenoma in his study of 275 cases.⁹ Similarly Aslam HM reported 71.3%, Riyaz A had 51.6%. and Saadaat R found 22.4% fibroadenoma respectively.^{10,11,12} FNAC provides a quick and reasonably reliable diagnosis.^{2,13} In literature, there is no significant differences in the age groups of patients presenting with fibroadenoma.³ Inflammatory conditions like acute mastitis and abscess formation was the 2nd large group (n=20, 20.05%) in our Study. Most of the patients were in 3rd (n=8) and 4th (n=6) decades of life. This is comparable to 19% by Dahri FJ (5). Khanzada TW has reported 16.4% breast abscess and 4% tuberculous mastitis in his study of 275 cases.⁹ Aslam HM recorded 3.5% breast abscess, 2.8% acute mastitis and 2.8% chronic mastitis in 254 cases.¹⁰ Komel A reported 7.4% breast abscess and 3.7% tuberculous mastitis in a study of 108 cases.¹⁴ Inflammatory conditions are less frequently diagnosed in young unmarried girls diagnosis of acute mastitis before progressing to abscess formation, can easily managed with antibiotics and thereby avoiding surgery.³ Tuberculous mastitis is a rare condition and its incidence is 0.1% in developing and 3-4% in developed countries.¹⁵ Aslam HM has noted 1.6% cases of granulomatous mastitis in his study. In our study the frequency of mastalgia with no obvious lump was 15.8%. This is comparable to 14.5% reported in a local study.⁵ Khanzada TW noted 17.7% cases of mastalgia.⁹ Komal A reported 13.8% cases of mastalgia.¹⁴ These patients were worried about breast malignancy.

They were reassured and treated with evening Primrose oil and analgesics. In western world, mastalgia is a common presenting complaint especially in the 4th and 5th decades of life.¹⁶ Phylloid tumour behavior depends upon its size. Histologically it may be benign borderline and malignant.

In this study, we had 8.4% benign Phylloid tumours which is much less than 60% that is reported by Hadi A¹⁷ but is comparable to 12% reported by Aslam HM.¹⁰ Riyaz A reported only 1.08% benign phylloid tumour in a retrospective study.¹¹

Fibrocystic disease was present in 5.3% patients especially in the 3rd and 4th decades of life. Dahri FJ reported 21.5% cases of fibrocystic disease. Majority of patients having fibrocystic disease were in the 4th and 5th decades of life.⁵ Khanzad TW reported 20.7% cases of fibrocystic disease, Aslam HM had 1.2%, Riyaz A had 13.8%, Saadaat R had 15.4%. and Komal A reported 31.5% cases of fibrocystic disease respectively.^{9,10,11,12,14}

In literature, the incidence of fibrocystic disease show geographical variation. It is reported as the 2nd most common benign condition in Subcontinent. It is found in all age groups but is reported to occur more commonly in the 5th decade.¹⁸

Duct ectasia was diagnosed in 4.2% cases. It is comparable to 7% by Dahri FJ.⁵ The reported figures for ectasia, in other studies are 12.4%, 0.4%, 0.53% and 1.8% respectively.^{9,10,11,14}

Galactocoele was found in 2.1% Cases. In literature the different figures mentioned are 4%, 2.5%, 0.53% and 5.5% respectively.^{5,9,11,14}

Duct papilloma was diagnosed in 1.1% cases. This patient presented with blood stained nipple discharge and biopsy revealed ductal papilloma. Dahri FJ reported 0.5% duct papilloma in a study of 200 Cases.⁵ In the literature, the different values mentioned are 4.7%, 0.4%, 100% and 3.7% respectively.^{9,10,11,14}

CONCLUSION






Fibroadenoma is the most commonly diagnosed benign lesion. In order to relieve the mental stress and anxiety, every patient with benign breast disease should be subjected to FNAC, which is a quick and reliable method of ruling out breast cancer.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

No.	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	Muhammad Shah	Collection of data and references.	
2	Ainul Hadi	Collection of data and references and writing the manuscript.	
3	Muhammad Iftikhar	Collection of references and data.	
4	Imranuddin Khan	Collection of references.	
5	Muhammad Zeb	Collection of references and computer work.	
6	Shehzad Akbar Khan	Supervision, Final checking of the manuscript.	