



A CLINICO-PATHOLOGICAL STUDY ON BENIGN BREAST DISEASES

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ABSTRACT **Introduction** The nomenclature of benign breast disease in the past has been confusing owing to the use of a variety of terms – namely, fibrosis, adenosis, epitheliosis, fibroadenosis and fibrocystic disease – for clinical patterns of pain, nodularity, benign lumps and nipple discharge. Most benign disorders are derived from minor aberrations of the normal process of development, cyclical hormone-related change and involution. To address this confusion, the concept of Aberrations of Normal Development and Involution (ANDI).

Aims And Objectives:

- To study the age distribution of various benign breast diseases.
- To study different types of benign breast diseases, their mode of Clinical presentation and Pathology
- To correlate between clinical diagnosis and FNAC to histopathological examination regarding the accuracy of diagnosis

Materials And Methods: Cases were selected from OPD and from inpatients in the wards who presented with disorders of breast in viswabharathi medical college from July 2022 to September 2023 for 18 months was carried out in 80 Women **Results:** The patient's age ranged from 13 years to 50 years. Majority belonged to 15-30 years of age group (71.24%). The most common benign breast tumour in our study is the fibroadenoma, followed by fibroadenosis, phylloides tumor, puerperal mastitis, duct ectasia and galactocele **Conclusion:** Benign breast disease presents mainly 15 -30 year of age group. It can be diagnosed clinically and confirmed by FNAC in more than 90% of the cases.

KEYWORDS : Benign breast diseases, Fibroadenoma, Fibroadenosis.

INTRODUCTION:

Benign breast disorders and diseases include a wide range of clinical and pathological conditions. Benign breast diseases include all non-malignant conditions of the breast and typically do not convey an increased risk of malignancy. Breast is a dynamic organ which undergoes cyclical changes throughout a woman's reproductive life. Hormones and growth factors acting on the epithelial and stromal elements right from the onset of puberty till menopause cause significant morphological changes. Most benign disorders are derived from minor aberrations of the normal process of development, cyclical hormone-related change and involution. To address this confusion, the concept of Aberrations of Normal Development and Involution (ANDI), developed¹.

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. Benign breast diseases are at least times more common than breast cancer in developed countries². Globally, benign breast diseases are the most common lesions accounting for 90% of the clinical presentation related to breast diseases³. The term "Benign breast diseases" includes a heterogeneous group of lesions and may present with wide range of symptoms⁴.

Most of the benign epithelial lesions are labelled by many pathologists with variety of terminologies such as cystic disease, fibrocystic disease, cystic mastitis, cystic mastopathy, epithelial hyperplasia, mammary dysplasia, benign breast disease⁵

Inclusion Criteria:

All breast related complaints and lesions of breast were included in this study

It includes women between the age group 13-50 years

Exclusion Criteria:

Patients with any obvious cancer or biopsy proven malignant diseases which has been treated for malignancy earlier or operated were excluded from this study.

MATERIALS AND METHODS:

The present study was carried out at Viswabharathi Medical College and Hospital, Penchikalapadu, Kurnool from July 2022 to September 2023 for a period of 18 months. It included Inpatient and Outpatient of female patients attending Surgery department of Viswabharathi Medical College And Hospital with features of benign breast lesions (lump, pain or nipple discharge).

A detailed history was taken and diagnosis made by triple assessment like clinical examination, imaging like USG, and mammography and histopathological examination like FNAC, core needle biopsy or excision biopsy⁶.

RESULTS:

Table: Showing clinical diagnosis and frequency of age distribution

Clinical diagnosis	Frequency	Age <15years	16-30yrs	31-45yrs	>45yrs
Fibroadenoma	46	2	32	10	2
Fibroadenosis	21		7	14	1
Phylloides tumour	2			1	1
Duct ectasia	2			1	1
Cyclical mastalgia	2		1	1	
Galactocele	4		2	2	
Breast abscess	3		2	1	
TOTAL	80	2	44	30	5

Table 2: Comparison between Clinical diagnosis and FNAC

Diagnosis	FNAC	HPE		PPV
Fibroadenoma	42	Fibroadenoma Fibroadenosis Phylloides tumour	39 2 1	92.85%
Fibroadenosis	7	Fibroadenosis Fibroadenoma	6 1	85.71%
Phylloides Tumour	1	Phylloides tumour	1	100%
Duct ectasia	2	Duct ectasia	1	100%

Table 3: Comparison between FNAC and HPE

Diagnosis	Clinical	FNAC	Number	PPV
Fibroadenoma	46	Fibroadenoma	42	91.3%
		Fibroadenosis	4	
Fibroadenosis	21	Fibroadenosis	19	90.47%
		Fibroadenoma	2	
Phylloides tumour	2	Phylloides	1	80%
		Fibroadenoma	1	
Duct ectasia	2	Duct ectasia	2	100%
Galactocele	4	Galactocele	2	50%

A total of 80 cases were selected for the purpose of study and analysed. Most of the benign breast diseases are common during the age group 16- 30 years. Fibroadenoma is most common among them and next is Fibroadenosis.

Comparison of Clinical diagnosis and FNAC:

Among them 46 cases were diagnosed as Fibroadenoma clinically and 42 are confirmed by FNAC, and the remaining were found to be Fibroadenosis and Positive predictive value (PPV) is 91.3%.

Out of 21 females diagnosed clinically as Fibroadenosis, 19 confirmed as Fibroadenosis by FNAC and 2 found to be Fibroadenoma and PPV is 90.47%.

Among clinically diagnosed 2 cases of phylloides tumour one found to be phylloides tumour and other as fibroadenoma and PPV is 80%.

2 cases of duct ectasia and 4 cases of Galactocele diagnosed clinically confirmed by FNAC and PPV is 100%

Comparison of FNAC and HPE:

Out of Total 52 FNAC's performed were subjected to excision and sent for HPE 40 were found to be Fibroadenoma, 8 were Fibroadenosis, and 2 as phylloides and 1 Duct ectasia.

DISCUSSION:

The benign lesions can arise from different kind of cells and can be inflammatory or proliferative. They include skin lesions, vascular lesions, lymph nodes, fat necrosis, foreign bodies, infections, fibroadenomas, other benign tumors, cysts, galactoceles, adenosis, fibrosis, duct ectasias, papillomas, radial scar, and spectrum of epithelial hyperplasias with or without atypia⁷. FNAC has highest sensitivity and specificity in the diagnosis of Benign breast diseases after histopathology. FNAC helps to confirm the clinical diagnosis without open biopsy. From this study, it can be concluded that diagnosis of breast lesion based on FNAC should be practiced as a routine procedure as there is the high degree of correlation with histopathology findings. Fibroadenoma was the most common breast lesion in our study constituting 71.89% of benign breast lesions followed by Fibroadenosis 19.60%.

FNAC was done in the department of pathology with the help of 23 gauge needle and FNAC correctly diagnosed 92.85% of cases of fibroadenoma, Out of 19 cases of fibroadenosis 7 cases were subjected to HPE out of which 6 diagnosed as fibroadenosis and 1 case come out as fibroadenoma.

Out Of 1 case of phyllodes tumor FNAC correctly diagnosed 1 case (100%) as benign phyllodes tumour and result of was Same.

4 cases of breast abscess were treated by incision and drainage with antibiotic coverage

3 cases of cyclical mastalgia treated conservatively

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