



A CLINICAL STUDY ON BENIGN BREAST DISEASES

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ABSTRACT

Purpose: To study various factors influencing benign breast diseases like age incident, presenting complaints, duration, relative incidents of Benign Breast Diseases and role of FNAC.

Method: The present study includes one hundred and twenty patients with various benign breast diseases.

Results: In our study Benign Breast Diseases are more common in younger age group of females. Fibroadenomas are more common in the 2nd decade, fibroadenosis is more common in the 3rd decade. FNAC has an accuracy of 93.33% for benign breast diseases.

Conclusion: Out of 120 cases; 56 cases were of fibroadenoma, 45 cases were of fibrocystic change and 9 cases of fibroadenoma + fibroadenosis. Breast abscesses and Phyllodes tumours occupied the third position with 3 cases each (Total 6 cases), duct papilloma 2 cases, one case of Tuberculosis and one case of fibromatosis observed.

KEYWORDS : Benign Breast Diseases; fibroadenoma; fibroadenosis ; Fine Needle Aspiration Cytology (FNAC).

INTRODUCTION

Anatomically Breast is a modified sweat gland that develops in to a complex functional structure in females, it is subjected to constant physiological changes with changing endocrinal profiles associated with menarche, menstrual cycles, pregnancy, lactation and menopause. The breast faces many malfunctions and dysfunctions that can lead to varied pathology of benign and malignant breast diseases which are common clinical problems.

The Benign breast diseases are one of the most confused areas of surgery because there are different terms describing the same pathology, and more important pre occupation with malignant disease and also because of confused correlation between clinical diagnosis and histopathological findings. As the breast is constantly undergoing changes due to various hormonal influences so lot of confusion in differentiating between normality and pathology. To know small relationship, between benign diseases and malignancy, and the malignant potential of benign diseases.

Classification of benign Breast Diseases - Frame work of Classification of BBD

Reproductive Period	Normal Process	Benign Breast Disorder	Benign Breast Disease
Development	Ductal Development Lobular Development Stromal Development	Nipple Inversion Single Duct Obstruction Fibro adenoma Adolescent Hypertrophy	Mammary Duct fistula Gaint Fibroadenoma
Cyclical change	Hormonal Activity Epithelial Activity	Mastalgia Nodularity Focal - Diffuse Benign papilloma	Severe Form
Pregnancy and Lactation	Epithelial Hyperplasia Lactation	Blood - Stained Nipple Discharge, Galactocele and Inappropriate Lactation	
Involution	Lobular Involution Ductal Involution Fibrosis, Dilatation Micropapillomatosis	Cyst and Sclerosing Adenosis, Nipple Retraction, Ductectasia, Simple Hyperplasia	Periductal Mastitis with suppurations - Lobular Hyperplasia with Atypia - Ductal Hyperplasia with Atypia - Intracysticpapilloma

AIMS AND OBJECTIVES

1. To Study various factors of benign breast diseases like age incidence, presenting complaints and their duration, parity and lactation, the various diagnostic and treatment modalities followed in ACSR. Govt. Medical College - Nellore
2. To Study the relative incidence of various types of benign breast diseases in our hospital
3. To demonstrate the role of FNAC in the diagnosis of benign breast diseases (BBD) and to compare with histopathological examination (HPE) has been taken as the gold standard for the comparison)

diseases were included in the present study in the Department of General Surgery, ACSR. Govt. Medical College, Nellore during the period from January 2015 to December 2016 and a record of the following of various benign breast diseases was made and compiled.

1. The complaint - pain, mass, nipple discharge etc..
2. The duration of complaints
3. The relation of complaints to menstruation, if any.
4. Size of the mass and nodularity
5. Anatomical distribution of lump in the breast
6. Parity and duration of breast feeding
7. Axillary lymphadenopathy

MATERIALS AND METHODS

One hundred and twenty patients with various benign breast

8. The discharge from nipple, if present.

In this study, all the patients, except a few, underwent FNAC on an outpatient basis, and the cytology studied. All the smears were stained by Papanicolaou's technique and also by Hematoxylin and eosin stain, and Leishmann stain.

The cytological report and the clinical findings were correlated and a final opinion formed. Lumpectomy was done and the specimen subjected to HPE. Both cytological and histological results were correlated and the results were analyzed. The incidence of different benign breast diseases at ACSR, Govt. Medical College, Nellore has been calculated. All the patients recruited in the study were thoroughly examined clinically after a detailed history taking, and a provisional diagnosis of benign breast diseases was arrived. Those patients who at the initial clinical examination were definitely found to be suffering from malignant condition were excluded from the study. Patients under 12 years of age were not included in the present study. Male patients are excluded from this study.

ANALYSIS OF DATA AND DISCUSSION

In this study one hundred and twenty patients with benign diseases of breast were examined, investigated, treated surgically or non-surgically and followed up in the General Surgery Department, ACSR, Govt. Medical College, Nellore during the period from January 2015 to December 2016 to analyse the various types of presentation, clinical course, investigations and the methods of management and cyto histological correction.

Sex

All the patients in this study were females. Males were not considered in this study.

Age	< 10 years	11-20 Yrs	21-30 Yrs	31-40 Yrs	41-50 Yrs	Total Cases
Fibroadenoma	-	30	15	11	-	56
Fibroadenosis	-	9	14	12	10	45
Combined	-	3	3	3	-	9
Phyllodes	-	-	1	2	-	3
Duct Papilloma	-	-	-	2	-	2
Chronic abscess	-	-	3	-	-	3
Tuberculosis	-	-	1	-	-	1
Fibromatosis	-	-	1	-	-	1
Total	-	42	38	30	10	120

Spectrum of BBD in Various Age Groups

Disease	10-20 yr	21-30	31-40	41-50	51-60	Total	Percentage (%) dhari et al
Fibroadenoma & Phyllodes	16	36	5	1	0	58	29%
Fibroadenosis	0	8	20	14	1	43	21.5%
Duct Papilloma	0	0	0	1	0	1	0.5%
Abscess	5	18	11	2	2	38	19%
Tuberculosis Breast	1	5	2	0	0	8	4%

The most common disease in our study is fibroadenoma with peak incidence in 2nd and 3rd decade of life which is consistent with Dhari et al and other studies. The fibrocystic disease was next common condition in our study and majority of the patients belonged to 4th and 5th decade the incidence varies geographically. This is 2nd most common condition in many studies from Pakistan and India.

Incidence of BBD in Various Studies

Disease	Oluwole G.etal N=44	Mc Farlance et al, N=268	Ali. Ket al N=567	Dhari et al	OUR STUDY N=120
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Fibroadenoma	70.5%	33%	30.2%	29%	46.66%
Fibroadenosis	15.9%	41%	39.3%	21.5%	37.50%
Duct Papilloma	2.3%	6.7%	1.1%	0.5%	1.66%
Phyllodes	2.3%	-	5.7%	-	2.5%
Abscess	-	3%	4.1%	19%	2.5%
Tuberculosis Breast	-	-	1.6%	4%	0.84%

Incidence of various Lesions of BBD

Lesion	No.	Percentage
Fibroadenoma	56	46.66
Fibroadenosis	45	37.50
Combined	09	7.50
Phyllodes	03	2.5
Abscess	03	2.5
Duct Papilloma	02	1.66
Tuberculosis	01	0.84
Fibromatosis	01	0.84

46.66% patients had fibroadenomas and 37.50% had fibroadenosis. The youngest patient was a 13 years old unmarried girl presenting with a solitary lump in the upper outer quadrant of right breast which proved to be a fibroadenoma in FNAC and was confirmed on HPE after excisional biopsy. The Oldest patient was a 49 year old lady presenting with a lump in the upper outer quadrant of left breast which was proved to be a case of ductal adenosis on excisional biopsy. Clinically she was diagnosed as having a malignant lesion because of uneven, firm lump in the left breast with ipsilateral Lymphadenopathy. 7.5% of patients has fibroadenomas with surrounding fibroadenosis. 53.57% of fibroadenoma lesions were found to be in 10-20 years age groups, followed by 26.78% in 21-30 years and 19.64% in 31-40 years.

Correlation of age Distribution with other Studies

Age Group	Present Study	DHARI et al	Sushila Khanna et al.
< 10 yrs	0.00%	0%	0.30%
11-20 yrs	35.00%	11.0%	25.25%
21-30 yrs	31.67%	33.5%	40.06%
31-40 yrs	25.00%	19.0%	19.56%
41-50 yrs	8.33%	9.0%	9.98%
> 50 Yrs	0%	1.5%	4.32%

All lesions occurred below 50 years of age. Tuberculosis was found in only one patient. Chronic abscesses were found in 2.5% of patients. 31.11% fibroadenosis lesions were present in 20-31 years age group followed by 26.6% between 30-40 years of age group. One patient presented with fibromatosis. Breast lesions due to filariasis were not found in this study.

Marital Status

Lesions	Married		Unmarried
	Parous	Nulliparous	
Fibroadenoma	51.35%	8.10%	40.50%
Fibroadenosis	73.30%	16.70%	10.00%

73.7% of patients in this study were married. 26.3% were unmarried.

Parity

40.50% of patients with fibroadenomas were unmarried, 8.1% were married nulliparous, 51.35% were married parous women. 43.3% of fibroadenosis patients had 1-2 children and 30% had 3-4 children. Two patients with chronic abscesses were mother of on child.

Complaints and Their Duration

41.25% of patients presented with six months of the onset of their symptoms. 31.25% of patients presents within one year of the onset of the symptoms. 70% of the patients were from

urban areas and 30% from rural areas. All the patients in this study presented with a lump (100%) in the breast, 54.16% of patients with mastalgia and 16.66% with serous discharge from the Nipple.

Lesions	Lump	Pain	Discharge
Fibroadenoma	56	14	4
Fibroadenosis	45	38	12
Combined	9	9	-
Phyllodes	3	1	1
Abscess	3	1	1
Papilloma	2	1	2
Tuberculosis	1	1	-
Fibromatosis	1	-	-
Total	120	65	20

In fibroadenosis is 84.44% of cases presented with mastalgia and 10% with nipple discharge. In 25% of fibroadenoma patients mastalgia was present and discharge from nipple only in 4 patients. 54.16% of the patients in this study had pain as one of their presenting symptoms. 25% of cases of fibroadenoma and 84.44% of patients of fibroadenosis had mastalgia as one of their presenting complaints. 57.77% of patients with fibroadenosis had cyclical mastalgia and heaviness in the affected breast. Two patients with florid fibroadenosis and several mastalgia had to undergo wide excision of the mass, which gave them complete relief of symptoms.

Nipple Discharge

Lesion	Serous	Milky	Bloody	Purulent	No Discharge	Total
Fibroadenoma	4	1	-	-	51	56
Fibroadenosis	9	-	-	-	36	45
Combined	-	-	-	-	9	9
Phyllodes	1	-	-	1	1	3
Abscess	-	-	1	-	2	3
Papilloma	1	-	1	-	-	2
Others	-	-	-	-	2	2
Total	15	1	2	1	101	120

15.8% patients had discharge from nipple as one of their presenting complaints. 84.16% had no discharge at all. Three patients were lactation. 20% of fibroadenosis patients had serous discharge. Only one of the two patients with duct papilloma presented with bloody discharge occasionally.

RESULTS OF FNAC

Lesion	Number		% of Total	% individual
	Positive	Negative		
Fibroadenomas	54	2	45.00%	96.42%
Fibroadenosis	40	5	33.33%	88.88%
Mixed	9	-	7.5%	100.00%
Phyllodes	3	-	2.5%	100.00%
Chronic infection + Tuberculosis	4	-	3.33%	100.00%
Duct Papilloma	2	-	1.66%	100.00%
Fibromatosis	-	1	0.83%	0.00%
Total	112	8	100.00%	93.33%

CONCLUSIONS AND OBSERVATIONS

1. Benign Breast diseases are more common in younger females.
2. The most common complaints are lump and mastalgia followed by nipple discharge.
3. Most of our patients presented within 6 months of the onset of their symptoms.
4. Benign breast diseases most commonly affect upper and outer quadrant as most of breast tissue is situated in that region.

5. FNAC has become a routine test in evaluating breast lesion, either benign or malignant. FNAC is safe, reliable, can be repeated and tolerable to the patients.
6. In early cases of carcinoma where it mimics benign breast diseases, FNAC is very useful and it can differentiate benign breast diseases from carcinoma and helps in instituting early treatment with cure.
7. A pre-operative diagnosis by FNAC helps in planning the surgery and explaining the patients about their disease and possible methods of managements. Thus FNAC avoids biopsy and decreases the hospital stay and cost of treatment.
8. FNAC does not alter the optical density of the breast and does not interfere with further radiological follow up.
9. In management of cysts FNAC would be diagnostic and therapeutic.
10. FNAC has an accuracy of 93.33% for benign breast diseases in the present study.
11. In very early cases with no palpable lesion if radiological investigations are available, aspiration can be done from a radio logically detected lesion and diagnosis can be made.
12. When used as 'triple assessment' (clinical + radiological + pathological combination) 99% of accuracy can be expected.
13. In the present study of 120 cases a definitive preoperative diagnosis by FNAC was made out in 93.33% of cases.
14. Fibroadenoma and Fibroadenosis are the most common causes of breast lumps.
15. Fibroadenomas are more common in the 2nd decade, fibroadenosis is more common in the 3rd decade in our study.
16. Chronic inflammatory pathologies are becoming rare – Filariasis is becoming extinct.
17. Through conservative treatment with reassurance is preferred in fibroadenosis, excision of painful lumps relieves the symptoms in so many patients.
18. Most of the patients with benign breast diseases are not coming regularly for follow up. 40% of the patients did not turn up for follow up at all. Most of those patients who came for follow-up also came for not more than 1-2 months.

Summary

A total of 120 cases of benign breast diseases treated in ACSR Govt. Medical College, Nellore over a period of 2 years from January 2015 to December 2016 were analyzed in this study. The cases were critically studied and analyzed by their age incidence, duration of symptoms, common clinical presentation, histopathological findings and the treatment adopted in each case with the outcome.

The common treatment modalities for various benign breast diseases are highlighted and suggestion made for improving the outcome of the management. Out of 120 cases; 56 cases were of fibroadenoma, 45 cases were of fibrocystic change and 9 cases of fibroadenoma + fibroadenosis. Breast abscesses and Phyllodes tumours occupied the third position with 3 cases each (Total 6 cases), duct papilloma 2 cases, one case of Tuberculosis and one case of fibromatosis observed.

REFERENCES

1. Schwartz Principles of Surgery 8th Ed 2005. Pg 463
2. Khanzada TW, Samad A, Sushel C. Spectrum of benign breast diseases. Pak J Med Sci 2009; 25:265-8.
3. Rana F, Younis J, Muzammil A. Breast cancer epidemiology in Pakistani women. J Coll Physicians Surg Pak 1999; 8:20-3.
4. Taj MN, Akber Z, Hassan H, Yousuf A. Pattern of presentation of breast diseases in a general hospital, Rawal Med J 2009; 34: 124-7.
5. Kamal F, Nagi Ah, Sadiq A, Kosar R, Khurshid I, Hussain S et al. Fibrocystic diseases of Breast-age frequency and morphological patterns. Pak J Pathol 2000; 11:11-4.
6. Khemkha A, Chakrabarti N, Shan S, Patel V. Palpable breast lumps: Fine needle aspiration cytology versus histopathology: a correlation of diagnostic

- accuracy. Internet J Surg 2009; 18:1
7. Khanzada TW, Samad A, Sushel C. Spectrum of benign breast diseases. Pak J Med Sci 2009; 25:265-8
 8. Journal of the National Medical Association, Vol. 71, No. 9, 1979.
 9. East African medical journal vol 78 no 7 July 2001
 10. Journal of Cancer research and Experimental Oncology Vol.3(7), PP. 88-87, October 2011