



A PROSPECTIVE CLINICAL STUDY ON 100 CASES OF BENIGN BREAST DISEASE IN RAJAH MUTHIAH MEDICAL COLLEGE AND HOSPITAL

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ABSTRACT

Background: Benign breast disease refers to the non malignant diseases of the breast. Surgeons requires in depth understanding of this topic to differentiate it from malignancy, to give appropriate treatment and to prioritize patients that require follow up. The aim of the study is to study the incidence, clinical features, etiology and cytological features of various benign breast disease, to analyse the usefulness of FNAC in benign breast disease, and to analyse various treatment methods. **Method:** This is a prospective analytical study, conducted among the 100 female patients between 15 to 45 years with breast lump who is diagnosed to have Benign breast disease by FNAC over period from November 2020 to October 2022. **Results:** Fibroadenoma is the most common BBD followed by fibroadenosis. Most common age group affected is 21-30 years. Unilateral Lump is the most presenting complaint in BBD and most of them presented within 6 months. Upper outer quadrant is most commonly involved. Fibroadenoma can be correctly diagnosed clinically most of the times. Cytohistopathological correlation in cases of FA showed 98.6% sensitivity. Surgical management is most commonly opted. **Conclusion:** Most common BBD is fibroadenoma followed by fibroadenosis and phyllodes. BBD commonly affects between 20 to 40 years. Majority of the cases present as unilateral lump with or without pain in upper outer quadrant. No evidence of causation was found between BBD and family history of breast disease, Menstrual periods, parity and OCP usage. Clinical diagnosis was consistent with the final diagnosis in most of the cases. FNAC was found to be useful investigation in diagnosing BBD with high sensitivity. Most of the BBDs are treated surgically except Fibroadenosis.

KEYWORDS : Benign breast disease, ANDI, Fibroadenoma

INTRODUCTION

Breast is a modified sweat gland. It acts as secondary sexual organ in females and is rudimentary in males. Any disease of the breast has more of a psychological and emotional concern. Breast disease can make significant impact of the well-being of a woman. The fear of malignancy adds on to it.

Surgeons requires in depth understanding of this topic to differentiate it from malignancy, to give appropriate treatment and to prioritize patients that require follow up.¹

Literature on benign breast disorders and diseases were scanty in India until recently. The realization that the vast majority of the lesions in breast are benign has led to an increase scope of study in this aspect.

The nomenclature of BBD is very confusing. This is because, over the last century a variety of clinicians and pathologists have chosen to describe a mixture of physiological changes according to a variety of clinical, pathological and etiological terminology. As well as leading to confusion, patients were unduly alarmed or over treated by ascribing a pathological name to a variant of physiological development. The term benign breast disease has been used as a portmanteau into which all breast disease excluding. Malignancy have been cast, thereby blurring the distinction between a variety of benign breast conditions. To sort out this confusion, a new system (aberration of normal development and involution) ANDI has been described by the Cardiff breast clinic.^{2,3}

Present study analyses pattern, presentation and management of various benign breast disease.

AIMS AND OBJECTIVES

- To study the incidence, clinical features and etiology of

various benign breast disease.

- To study the cytological features involved in benign breast disease.
- To analyse the usefulness of FNAC in benign breast disease.
- To compare the various treatment modalities of benign breast disease.

METHODOLOGY

Study Design: Prospective analytical study.

Study Period: November 2020 to October 2022.

Study Population: 100 patients with benign breast lump in Rajah Muthiah Medical College & Hospital, Chidambaram.

Source Of Data

Study to be conducted among the 100 female patients with breast lump who is diagnosed to have benign breast disease at Rajah Muthiah Medical College Hospital, Chidambaram during the study period.

Method Of Study

This study will be conducted among 100 out patients and in patients in the Rajah Muthiah Medical College with breast lump who have diagnosed as benign breast disease during the study period. Detailed history will be noted and evaluation will be done by doing a triple assessment like a clinical examination, FNAC or a core needle biopsy and imaging methods like ultrasonography or mammography. The clinical diagnoses is confirmed with FNAC. Follow up is done to compare medical and surgical management of various benign lesions.

Inclusion Criteria

Female patients of age group 15 – 45 years with breast lump diagnosed as benign breast disease confirmed by FNAC.

Exclusion Criteria

- Patient who are not willing for the study.
- Age group below 15 years and above 45 years.
- Patients with malignant breast disease or breast abscess.
- Pregnant and lactating females.

Results Of The Study

The present study includes proven cases of 100 patients with benign breast disease in Rajah Muthiah medical college and hospital over a period of 24 months and the data are profiled.

Table-1: Distribution Of Benign Breast Disease In The Study Group

Disease	Number of cases	Percentage
Fibroadenoma	75	75
Fibroadenosis	18	18
Phyllodes	2	2
Tubal adenoma	3	3
Duct ectasia	1	1
Epitheliosis	1	1

Table-2: Distribution Of Benign Breast Disease Among Various Age Groups

Age	Fibroadenoma	Fibroadenosis	Phyllodes	Ductectasia	Epitheliosis	Tubularadenoma
<20	8		1			1
21-30	47	7				2
31-40	17	7	1	1		
40	3	4			1	

Table-3: Mode Of Presentation

	Fibroadenoma	Fibroadenosis
Lump	66	6
Lump+Pain	9	12

Duct ectasia had nipple discharge as presenting complaint.

Table-4: Duration Of Symptoms Of Various Benign Breast Disease In The Study Group

Duration	Fibroadenoma	Fibroadenosis	Phyllodes	Duct Ectasia	Epitheliosis	Tubular Adenoma
<= 1 month	16	1				
1-6 months	53	15	2	1	1	3
>6 months	6	2				

Family History: There were family history of breast lesion in 3 cases. All 3 were benign lesion in first degree relatives.

Past History: 7 patients with fibroadenoma showed history of similar complaints in the past. 2 of them had in the same breast while 5 of them had in the opposite breast.

Menstrual History: Menstrual Irregularities were noted around 18% of the study population

Parity: Occurrence benign breast disease was found to be almost equal after 2nd child birth (38%) and among nulliparous (34%).

OCP: In the present study, OCP usage noted in 5 cases of BBD.

Table-5: Laterality in the study group

Side	Number
Right	40
Left	44
Bilateral	16

Table-6: Distribution of quadrant of the breast involved

Quadrant	Number
Upper Outer	56
Upper Inner	15

Lower Outer	10
Lower Inner	9
Central	3
All 4 Quadrants	7

Table-7: Dimensions of various benign breast disease in the study group

Size	Fibroadenoma	Fibroadenosis	Phyllodes	Tubular Adenoma	Epitheliosis	Duct Ectasia
<2cm	8	3		2	1	1
2-5cm	63	14	1	1		
> 5 cm	4	1	1			

Consistency & Mobility: Most of the cases were in firm in consistency and were freely mobile.

Table-8: Comparison of FNAC with HPE in fibroadenoma

FNAC	HPE findings consistent with FA	HPE findings inconsistent with FA
Positive	74	3
Negative	1	22

- Sensitivity -98.6%
- Specificity -88%
- Positive predictive value -96.1% Negative predictive value -95.6%

Table-9: Treatment of BBD in the study group

	Excision and biopsy	Wide local excision	Medical management
Fibroadenoma	75		
Fibroadenosis			18
Phyllodes		2	
Duct ectasia	1		
Tubal adenoma	3		
Epitheliosis	1		
Total	80	2	18

It is observed that medical management was used for fibroadenosis, while wide local excision was used for phyllodes. Excision and biopsy was the most preferred treatment option and was used for fibroadenoma, duct ectasia and tubal adenoma. Cone excision of involved duct was used in duct ectasia.

Analysis of Histopathology

Among the 100 cases studied

- Fibroadenoma was found to be the most commonly reported.
- Among which one was pericanalicular type giant fibroadenoma.
- One case showed fibroadenoma with duct epitheliosis
- Fibroadenotic changes were reported by fnac in 18 specimens.
- Out of 2 Phyllodes cases, one was Benign and one was borderline.
- 3 cases of tubular adenoma was reported
- And one of it was associated with focalepitheliosis

Follow Up

All the 100 patients were followed up for a period of 3 months and only 2 were unsatisfied with treatment. Both were cases of Fibradenosis and complained of persisting pain

DISCUSSION

Fibroadenoma remains the most common BBD observed in the present study and existing studies. While 2nd common BBD was fibroadenosis. Most of the benign breast disease occur in the age group of 21-30 years. Age of the patient can act as the best indicator to differentiate BBD from Malignancy. In our study, youngest case was 15 years old and oldest was 45 years old. Fibroadenomas commonly found between 21-30 years followed by 31-40 years but extremes of age, <20 years and >40 years are not immune to fibroadenoma.⁸ Fibroadenosis

were found to be equally common between 21-30 years and 31-40 years. But there were no case reported <20 years. Lump is the most presenting complaint in BBD. 75% of the study group presented with lump in the present study while 74 % of them presented with lump in study of Manish Chaudhary.⁶ 2nd most common symptom was found to be painful lump in the present study which is consistent with the existing studies. Even though rare, nipple discharge is also symptom of concern.

In the study group 92% of the cases presented within 6 months. Early presentation is essential to diagnose malignancy in an early stage. Literature shows inconclusive results on the causation of BBD by family history and OCP usage. Present study also does not shows any conclusive result. 7 patients with fibroadenoma showed history of similar complaint in the past. 2 of them had in the same breast while 5 of them had in the opposite breast. Few cases showed menstrual irregularities, but whether it affects the causation of BBD is inconclusive.

In the study, BBD is found commonly in Nulliparous and after 1st pregnancy. Hence the role of parity in causation of BBD becomes controversial.⁷ 84% of the BBD had unilateral presentation. Bilateral involvement is rare and was seen only in fibroadenosis in the present study. It was consistently seen in the existing literature that upper outer quadrant is most commonly involved. The finding of present study is no different. Proportion of breast tissue was found to be more in upper outer quadrant when compared to other quadrants. It was stated in malignancy that the proportion of breast tissue in respective quadrants coincides with occurrence of tumour. Same may be applicable to BBD also.

In the present study around 71% of the cases had lesions between 2-5cm. Smallest size reported was 1 cm and was found in fibroadenosis. Largest is 14 cm, in phyllodes tumour. Usually, the largest lesion in size was clinically diagnosed as phyllodes tumour. In Soji.F.Oluwale⁹ study more number of lesions varied from 1cm to 10cms. Most of the BBD are firm and mobile. Only 2 immobile swelling were recorded, a fibroadenoma and a phyllodes.

As per study, fibroadenoma can correctly diagnosed clinically most of the times. Even though GFA can be confused with phyllodes. Other breast lump like tubal adenoma and epitheliosis can also be misdiagnosed as fibradenoma clinically. Cytohistopathological correlation in cases of FA showed 98.6% sensitivity, 88% specificity, PPV- 96.1%, NPV =95.6%.⁵

In the study group, all fibroadenoma cases were treated by excision biopsy. Phyllodes were treated by wide local excision. Other lumps were treated by excision biopsy. Duct ectasia was treated cone excision of the involved duct. Fibroadenosis were treated by medical management, initial course of Evening Primerose oil and Vitamin E followed by Danazol on persistence of symptoms was done showed promising results.⁴

CONCLUSION

Most common BBD is fibroadenoma followed by fibroadenosis and phyllodes. BBD commonly affects between 20 to 40 years. Majority of the cases present as lump with or without pain. Nipple discharge is the rare complaint. Most of the cases present within 6 months. No evidence of causation was found between BBD and family history of breast disease, Menstrual periods, parity and OCP usage. Bilateral involvement is rare and found only in fibroadenosis.

Upper outer quadrant of breast was commonly involved. It may be due to increased amount breast tissue in upper outer quadrant.

Majority of them were firm mobile masses with a size between 2-5 cm. Clinical diagnosis was consistent with the final diagnosis in most of the cases of fibroadenoma and fibroadenosis. FNAC was found to be useful investigation in diagnosing BBD with high sensitivity. Most of the BBDs are treated surgically except Fibroadenosis.

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