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**CORRELATION BETWEEN CLINICAL FEATURES AND FNAC FINDINGS OF BENIGN BREAST DISEASE**

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**ABSTRACT**

**AIM AND OBJECTIVES:** The purpose of this study was to evaluate the different types of benign breast diseases and their mode of clinical presentation, pathology and management, and to correlate the efficacy of clinical diagnosis based on clinical examination with the pathological findings in various benign breast diseases of females. **MATERIALS AND METHODS:** The cases presented in this study are those patients admitted as inpatient basis to Rajah Muthiah Medical College, Chidambaram who have Benign breast diseases in the time period between August 2012 to August 2014. This is a prospective study in which 30 patients of benign breast diseases, diagnosed based on their clinical history and thorough clinical examination were randomly selected and further management planned based on their willingness for undergoing all necessary investigations and surgery. All patients were studied and clinical findings were recorded, necessary investigations ordered and appropriate treatment given. All the data were analyzed and the results were tabulated. **RESULTS:** Of all the benign breast diseases, fibroadenoma is the most common disease, presenting mainly in the age group of 21-30 years. Most commonly it presents as a painless lump. FNAC is safe, cost effective and OPD procedure commonly used for diagnosis of benign breast diseases with fair accuracy of 86.6%. Excision is the most commonly used and most satisfactory surgical method of treatment. **CONCLUSION:** Benign breast diseases presents mainly in 21-30 years of age group. They can be diagnosed clinically with fair accuracy and confirmed by FNAC in more than 86% of the cases. Excision is the main stay of the treatment.

**Keywords:** Benign breast disease, fibroadenoma, Pathology

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**1.INTRODUCTION**

Benign Breast Diseases (BBDs) is a group of breast diseases which is not carcinoma. It is the most common cause of breast problems in females and it is more frequent than the malignant ones [1-6]. Upto 30% of the women who suffer from BBDs will require treatment at some time in their lives [8]. A triple assessment which is done by a clinical examination, imaging like ultrasonography (USG) or mammography and a pathological examination – FNAC or core needle biopsy, during the initial consultation allows a majority of the patients with discrete BBDs to be given immediate reassurance. Since a majority of the benign lesions are not associated with an increased risk for subsequent breast cancer, unnecessary surgical procedures can be avoided. Making an early diagnosis and planning the treatment within 72 hours of the first consultation, helps in giving a prompt treatment, a proper follow-up and

The popular classification of BBDs according to the Aberration of the Normal Development and Involution (ANDI) causes confusion due to a lack of clarity in distinguishing between the normal physiological changes and the pathologic ones. One of the more satisfying classifications would be the one which was devised by Love S et al., [9], the so-called Nashville classification. According to this, BBDs is classified by 2 systems. Pathologically, BBDs is divided into (a) non-proliferative lesions, (b) proliferative lesions without atypia and (c) atypical proliferative lesions. Clinically, BBDs is classification as (a) physiologic swelling and tenderness, (b) nodularity, (c) breast pain, (d) palpable lumps, (e) nipple discharge and infection or inflammation

In this study, we study the incidence of BBDs, the relative frequencies of the different types of BBDs and their clinical features. Secondly, we attempted at correlating the clinical and FNAC finding wherever possible

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**2.METHOD**

This descriptive study was conducted in the OutPatients from September 2012 to September 2014. 30 women who were treated for BBDs were included in this study. The patients were required to give written informed consent before the study.

Detailed history and a thorough physical examination were done. After making an appropriate clinical diagnosis– FNAC, mammography, ultrasound or a core-needle biopsy were carried out for the confirmation of the diagnosis.

The FNAC smears were reported by using standardized diagnostic criteria by the same pathologist and they were categorized into non proliferative/proliferative without atypia/atypical proliferative lesion/frank carcinoma. The clinical diagnosis, particularly in the case of the benign breast lumps, was compared with the cytological or the histological findings and the accuracy of the clinical diagnosis was evaluated.

**3.RESULT**

**Table 1. AGEDISTRIBUTION OF DIFFERENT BENIGN BREAST DISEASE IN THE PRESENT STUDY**

DISEASES	<10 YR	11-20 YR	21-30 YR	31-40 YR	41-50 YR	>50 YR
Fibroadenoma	-	7(26.92%)	14(53.85%)	-	4(15.38%)	1(3.8%)
Galactocele	-	1(50%)	1(50%)	-	-	-
Fibroadenosis	-	-	-	1(100%)	-	-
Ductal ectasia	-	1(100%)	-	-	-	-
<b>Total cases</b>	-	9(30%)	15(50%)	4(13.3%)	4(13.3%)	1(3.3%)

**Table 2. CYTO-HISTOLOGICAL CORRELATION IN B.B.D**

Histological diagnosis	Cytological Diagnosis						
	FA(%)	FDS(%)	CSP(%)	Gal(%)	NSM(%)	BEH(%)	BDC(%)
Fibroadenoma (26 cases)	19 (73.07%)	3 (11.53%)	-	-	1 (3.84%)	3 (11.53%)	-
Galactocele (2 cases)	-	-	-	2 (100%)	-	-	-
Ductal ectasia (1 case)	-	-	-	-	-	-	1 (100%)
Lipoma (1 case)	-	-	-	-	1 (100%)	-	-

FA- Fibroadenoma; CSP- CystoSarcoma Phyllodes; FDS- Fibroadenosis; NSM- Non

**Table 3. CLINICO-HISTOLOGICAL CORRELATION**

Histological diagnosis	Cytological Diagnosis						
	FA(%)	FDS(%)	CSP(%)	Gal(%)	NSM(%)	BEH(%)	BDC(%)
Fibroadenoma (26 cases)	19 (73.07%)	3 (11.53%)	-	-	1 (3.84%)	3 (11.53%)	-
Galactocele (2 cases)	-	-	-	2 (100%)	-	-	-
Ductal ectasia (1 case)	-	-	-	-	-	-	1 (100%)
Lipoma (1 case)	-	-	-	-	1 (100%)	-	-

FA-Fibroadenoma;;CSP-CystoSarcoma Phyllodes;FDS- Fibroadenosis;Gal- Galactocele; DE- Ductal Ectasia; PL- Pleomorphic Lipoma

In this study Fibroadenoma forms the most common benign breast disease, accounting for 26 cases (86.6%), Galactocele 2 cases (6.66%) and one case each of Fibroadenosis (3.33%) and Ductal ectasia (3.33%). most commonly affected age group of benign breast diseases is 21- 30 yrs, with 15 (50%) cases, followed by 11-20 yrs with 9 (30%) cases.

Fibroadenoma is most commonly seen in age group 21-30 yrs 14 (53.85%) followed by age group 11-20 yrs 7 (26.92%) cases. Galactocele was found to be equally distributed in age groups 11-20 yrs and 21-30 yrs with 1 (50%) case in each category. The only case of fibroadenosis and Ductal ectasia were found in age groups 31-40 yrs and 11-20 yrs respectively.

In this study, out of total 30 cases, FNAC was consistent with post operative histopathology diagnosis in 23 cases, showing overall sensitivity of 76.6%. Of the 26 cases of Fibroadenoma documented with postop histopathology, FNAC diagnosis was consistent with 19 (73.07%) of cases, and 3 (9.1%) cases were reported as Fibroadenosis, 3 (9.1%) cases as Benign epithelial hyperplasia and 1 (4.5%) case was reported as Nonspecific Mastitis.

In this study, out of total 30 cases, clinical diagnosis was consistent with post operative histopathology diagnosis in 29 cases, showing overall sensitivity of 96.6%. All the cases of fibroadenoma were accurately (100%) diagnosed clinically when compared with post operative histopathological examination, except for 1 case of pleomorphic lipoma, which was diagnosed as fibroadenosis on clinical examination.

#### 4. DISCUSSION

Benign breast diseases includes a heterogeneous group of conditions which range from normal, to aberrations in the physiology, to frank disease. The patients of BBDs generally present with one or more of these complaints – breast lump, breast pain or nipple discharge. It has been recommended that all the patients with discrete breast lumps should undergo a triple assessment to make an early diagnosis. By this approach, we provided the diagnosis of most of the benign breast conditions within 72 hours of the initial consultation. In the study of Foncroft LM et al., [10], they found that 87.4% of the women who attended the Wesley Breast Clinic had presented with breast lumps, while in the series of Ratana Chaikanont T [11], a breast lump was the presenting symptom in 72.35% of the 331 benign breast patients. The corresponding figure for our study was 87%. Fibroadenomas accounted for 52.74% of the benign breast lumps in our study. Our findings were in agreement with most of the available literature on benign breast lumps, where the frequency of fibroadenoma ranged from 46.6%-55.6% [12-15]. The peak incidence of fibroadenoma ranged from the

2<sup>nd</sup> to the 3<sup>rd</sup> decade of life, which was consistent with the findings of other studies. FNAC was the quickest and the most reliable method which helped in making the diagnoses of the breast lumps.

#### 5. CONCLUSION

Benign breast diseases is a common problem in women. A lump in the breast is the commonest presentation. Breast pain and nipple discharge are the other symptoms. Most of the patients have more than one symptom. The commonest age group which is affected is 21-30 years age group. Among the breast lumps, fibroadenoma is the commonest. The clinical diagnosis of the benign breast lumps were accurate in 96.65 % cases

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