THE SPECTRUM OF BENIGN BREAST DISEASE AT A TERTIARY CARE CENTRE.

K M V S Suman	Associate Professor
Dakkumala Satya Sachin*	Post Graduate*Corresponding Author
Vuriti Mrudula Kumari	Assistant Professor

ABSTRACT **AIMS AND OBJECTIVES OF STUDY-** To analyze the incidence, age distribution and other associated factors of benign breast disease. To study the different modes of presentation of benign breast disease. To study the clinico-pathological correlation of benign breast disease. **METHODS-** This descriptive study was done for 50 patients presenting to surgical OPD of Government General Hospital, Anantapur from 2021 to 2022.All female patients aged 15 to 65 years who presented with breast complaints are included in the study. Patients less than 15 years and more than 65 years and who presented with any recurrent disease/clinically obvious cancer/biopsy proven malignant disease are excluded in the study. **RESULTS-** In this study, Fibroadenoma is found to be most common presentation of Benign breast disease followed by Fibrocystic disease. The other benign lesions observed are breast abscess, periductal mastitis and phyllodes tumor. **CONCLUSION-** Most common presentation of Benign Breast Disease is Lump followed by lump associated pain. People in 2nd and 3rd decades are most common affected, with mean age 29.12 years. Left breast is more involved than Right breast in this study group. FNAC correlation of Fibroadenoma with subsequent biopsy proved 100% accuracy in this study.

KEYWORDS : Benign Breast Disease, Fibroadenoma, Fibrocystic Disease, Triple assessment.

INTRODUCTION

Benign breast disease is comprising of non-malignant breast problems and it includes a broad range of pathologic and clinical conditions. These problems affect both men and women. About 30 % of women have benign breast problems during their lifetime which may need treatment. More than 90 % patients attending a breast clinic will likely have a benign breast disorder[1,2].

One of the reasons a woman worries about her breast lump is her fear of cancer. Breast undergoes dynamic physiological changes all through a woman's life. This has a close connection to puberty, pregnancy, breastfeeding and menopause. Self-breast examination by the individual results in the discovery of about 85% of all breast lumps. Lump turn out to be palpable when it is greater than 1 cm in diameter. It may take three years for a tumor to reach this size from a single cell stage based on tumor doubling time[3].

The triple assessment that consists of imaging, clinical examination and histopathological examination is currently regarded as the gold standard approach to breast lump diagnosis4.Prompt treatment and early diagnosis will reduce unnecessary surgery and anxiety about a breast lump turning into malignancy. The incidence of benign breast lesions starts to increase during the second decade of life and peaks in the fourth and fifth decades, unlike malignancy which peaks after menopause [5-12].

In this study, we analyzed the spectrum of benign breast disease at tertiary care centre.

AIMS AND OBJECTIVES OF STUDY
- To analyze the incidence, age distribution and other associated factors of benign breast disease.
- To study the different modes of presentation of benign breast disease.
- To study the clinico-pathological correlation of benign breast disease.

METHODS

This descriptive study was done for 50 patients presenting to surgical OPD of Government General Hospital, Anantapur from 2021 to 2022.All female patients aged 15 to 65 years who presented with breast complaints are included in the study. Patients less than 15 years and more than 65 years and who presented with any recurrent disease/clinically obvious cancer/biopsy proven malignant disease are excluded in the study. Statistical analysis was done means of simple arithmetic mean.

RESULTS

Incidence – The study group comprised of 50 Patients with benign breast disease. A spectrum of lesion was identified with commonest being fibroadenomas (56 %) followed by fibrocystic disease (30%)

The other benign lesions observed are breast abscess, periductal mastitis and phyllodes tumor.

Table 1: INCIDENCE OF BENIGN BREAST DISEASE

Clinical Diagnosis	No. of Patients	%
BREAST ABSCESS	4	8.0
FIBROADENOMA	28	56.0
FIBROCYSTIC DISEASE	15	30.0
PERIDUCTAL MASTITIS	1	2.0
PHYLLODES TUMOUR	2	4.0
Total	50	100.0

Mode of presentation - The most common presenting complaint was lump in the breast. In 45 patients,25(50%) patients presented with lump only,13(26%) with lump and pain,6(12%) with lump associated with pain and fever,1(2%) with lump associated with pain and discharge. The next common complaint pain noted in 25 patients of which 5(10%) presented with pain as a complaint. The common complaint was fever noted in 6 (12%), Only 1 patient (2%) present with discharge.

Age Distribution - 88% of cases of breast benign disorders fall in age group between 15 to 35 years that is in second and third decades. of these 56% represented as early and mid-reproductive age groups.
Mean age for breast benign disorders is 29.12 years Only 6 cases are seen above 35 years of age representing 12% of total number of patients.

Side of Disease - 58% patients presented with complaints of Left breast, 36% with complaints of right breast. only 6 % with both breasts.

Ultrasonography of breast - All 50 patients have undergone USG examination of the breast. Of these,48 % has features of fibroadenoma,34% has features of Fibrocystic disease,4% having both features of Fibroadenoma and Fibrocystic Disease.8% having features of breast abscess. Other 6% having features of periductal mastitis and phyllodes tumor.

Fine Needle Aspiration Cytology - Out of 50 patients ,46 patients underwent FNAC.

In 24 cases, FNAC reported as fibroadenoma and subsequently underwent biopsy which got as fibroadenoma with 100% accuracy.

In 16 cases of Fibrocystic disease, all cases diagnosed as Fibrocystic disease but 4 cases went for surgery and got confirmed on biopsy.

3 cases have both features of Fibroadenoma and Fibrocystic disease.

2 cases of phyllodes tumor got confirmed on FNAC and later confirmed by histopathological reports.1 case got confirmed as periductal mastitis Histopathology Findings - In our study group, 20 (40%) cases were diagnosed as Fibroadenoma on HPE reports which is most common type of Benign breast disease.

16 (32%) cases were not done histopathology examination which are managed conservatively and some cases are breast abscesses which is sent for culture and sensitivity.

5 (10%) cases were diagnosed as Fibrocystic disease on histopathology whereas 6 (12%) were diagnosed both as Fibroadenoma with Fibrocystic disease.

2 (4%) cases are diagnosed as Phyllodes tumor on HPE. 1(2%) case diagnosed as periductal mastitis.

Graph.1: Histopathology Findings
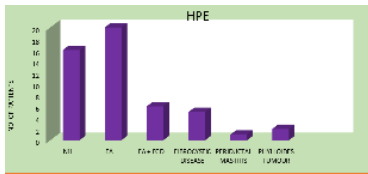
DISCUSSION
The breast can develop both benign and malignant disorders. The benign breast disease consists of a broad range of conditions that concern patients as well as surgeons. The obtained study results were compared with previous studies.

AGE INCIDENCE:
Youngest girl in our study was 15 years girl with fibroadenoma as diagnosis Eldest was 52 years old lady with Phyllodes tumor as diagnosis.

In our study period, most of patients have been within age group 0f 20 to 30 years (48%). According to Shukla S Hari study13 of 112 cases conducted at Hong Kong ,Indonesia, Nigeria and India have found more incidence in age group of 20 to 30 years(43%).Oluwole F.soji study showed incidence between 20- 35 years14 are similar to our present study.

In our study, most of fibroadenomas occurred between age of 20 to 30 years. Similar to the review of De Chelnocky15, and peak incidence occurred at 24.5 years.

PRESENTATION:
In our present study, the most common presentation was lump in the breast accounting for 25 (50%) cases ,13 (26%) cases having with lump and pain.

The present study correlates with the Wilkinson et al study. a Usha et al 16 study states that Breast lumps were the most frequent appearance.

TYPES OF BREAST BENIGN DISORDERS
Table 2: Comparing types of breast benign disorders

No	Disorder	Khanna et al [18]	OA Egwuonwu [17]	Tariq wahab et al [19]	Philip et al [20]	Present study
1	Fibroadenoma	60%	19%	27%	24%	48%
2	Fibrocystic disease	15%	15.6%	21%	68%	34%
3	Phyllodes tumour	-	1.7%	-	-	4%
4	Fibroadenoma + fibrocystic disorder	-	-	-	8%	4%
5	Inflammatory	20%	2%	16%	-	10%

In present study, the most common type of Breast benign disorder is Fibroadenoma 24 (48%) cases, 17 (34%) cases with Fibrocystic disease,5 (10%) cases with Inflammatory diseases, 2 (4%) cases each with Phyllodes tumor and Fibroadenoma with fibrocystic disorder.

In the current study, fibroadenoma was the most prevalent benign disease. This is consistent with research by Khanna et al.,18 O.A. Egwuonwu et al. 17 Tariq Wahab et al.[20]

Fibrocystic disease ranked second among benign breast conditions in the current study. This also relates to studies conducted by Tariq Wahab et al.19, Khanna et al.18, and O.A. Egwuonwu et al 17Fibrocystic disorder was identified by Stern et al. as being prevalent in females of all ages, particularly in the middle age group. Fibrocystic disease was identified by Chaudhary et al. as the most prevalent benign breast ailment in their research of 234 patients. [20]

Comparison within clinical evaluation, Ultrasonography, FNAC report and HPE report of patients with ANDI

The most frequent ANDI, according to clinical evaluation is fibroadenoma (28 instances), followed by fibrocystic disease (15 cases), and Phyllodes tumor.

According to the FNAC, fibroadenoma is the most frequent ANDI (24 cases), followed by fibrocystic disease (16 cases), and then fibroadenoma with fibrocystic disease. The Phyllodes Tumor is the least typical.

According to the ultrasonography, fibroadenoma is the most frequent ANDI (24 cases), followed by fibrocystic disease (17 cases), fibroadenoma with fibrocystic disease, and Phyllodes tumor (2 cases). Fibroadenoma, which occurs in 20 cases, is the most prevalent ANDI, followed by fibroadenoma with fibrocystic disease and then fibrocystic disease, according to HPE reports. Phyllodes tumor is the least typical type.

The FNAC is a very helpful tool for identifying benign breast disorders and distinguishing them apart from cancer. It is a more accurate diagnosis tool than clinical findings and can avoid unnecessary surgical therapy.

Core needle biopsy has advantage of tissue diagnosis and receptor status study over FNAC.

CONCLUSION
*   Most common presentation of Benign Breast Disease is Lump followed by lump associated pain.
*   2nd and 3rd decades are most common age affected with mean age 29.12 years.
*   Left breast is more involved than Right breast in this study group.
*   Ultrasound of breast revealed Fibroadenoma followed by Fibrocystic disease.
*   FNAC correlation of Fibroadenoma with subsequent biopsy proved 100% accuracy in this study.
*   Breast self-examination and awareness regarding breast lump plays a crucial role in diagnosis.
*   Reassurance is the first step in treating benign lesions.

REFERENCES
1. Caleffi M, Filho DD, Borghetti K, Graudenz M, Littrup PJ, Freeman-Gibb LA et al. Cryoablation of benign breast tumours: evolution of technique and technology. Breast. 2004;13:397-407.
2. technology. Breast. 2004;13:397-407. 2. Murillo Ortiz B, Botello Hernandez D, Ramirez Mateos C, Reynaga Garcia FJ. Benign breast diseases: clinical, radiological and pathological correlation. Ginecol Obstet Mex. 2002;70:613-8
3. Heuser L, Spratt JS, Polk HC Jr. Growth rates of primary breast cancers. Cancer. 1979;43:1888-94.
4. Hughes LE, Mansel RE, Webster DJT. The approach to diagnosis and assessment of benign breast lumps benign disorders and diseases of the breast concepts and clinical management, 2nd edition. London: WB Saunders; 2005:35.
5. Kelsey JL, Gammon MD. Epidemiology of breast cancer. Epidemiol Rev. 1990;12:228-40
6. Cole P, Mark Elwood J, Kaplan SD. Incidence rates and risk factors of benign breast neoplasms. Am J Epidemiol. 1978;108:112-20.
7. Utchinson WB, Thomas DB, Hamlin WB. Risk of breast cancer in women with benign breast lesion. J Natl Cancer Inst. 1980;65:13-20.
8. Fitzgibbons PL, Henson DE, Hutter RV. Benign breast changes and the risk for subsequent breast cancer: an update of the 1985 consensus statement.Cancer Committee of the College of American Pathologists. Arch Pathol Lab Med. 1998;122:1053-55.
9. Sarnelli R, Squartini F. Fibrocystic condition and at risk lesions in asymptomatic breasts: a morphologic study of postmenopausal
10. benign, atypical, and malignant breast lesions in populations at different risk for breast

cancer. A forensic autopsy study. Cancer. 1987;60:2751-60.
11. Cook MG, Rohan TE. The patho-epidemiology of benign proliferative epithelial disorders of the female breast. J Pathol. 1985;146:1-15.
12. Vecchia C, Parazzini F, Franceschi S. Risk factors for benign breast disease and their relation with breast cancer risk. Pooled information from epidemiologic studies. Tumori. 1985;71:167-78
13. Shukla S. Hari and Kumar Sandeep, "Benign breast Disorders in Non-Western population", Part II, Benign breast disorders in India, World Journal of Surgery, 1989, Vol.13, p.667
14. Oluwole F.Soji, "Analysis of benign breast lesions in Blacks", American Journal of Surgery, 1979, Vol.137, p.786-789
15. deCholnecky, Tibor "Benign tumours of Breast", Archieves of Surgery, 1937: Vol.38,p.79
16. Khanzada TW, Samad A, Sushel C. Spectrum of Benign breast diseases. Pakistan Journal of Medical Sciences. 1998;25(2):265-8.
17. Egwuonwu OA, Anyanwu SNC, Chianakwana GU, Ihekwoaba EC. Breast lumps in NAUTH, Nnewi: A year review. Nigerian Journal of Surgery 2009;15:6-9.
18. Khanna R, Khanna S, Chaturvedi S, Arya NC. Spectrum of breast disease in young females: A retrospective study of 1315 patients. Indian Journal of Pathology and Microbiology. 1998;41(4):397-401
19. Khanzada TW, Samad A, Sushel C. Spectrum of Benign breast diseases. Pakistan Journal of Medical Sciences. 1998;25(2):265-8
20. Cole P, Elwood JM, Kaplan SD. Incidence rates and risk factors of benign breast neoplasms. American Journal of Epidemiology 1978;108(2):112-2039