

## STUDY OF SPECTRUM OF BREAST DISEASES IN KONASEEMA REGION OF ANDHRA PRADESH, INDIA

Ananth Lakshmi<sup>1</sup>, R. Jyothi<sup>2</sup>, Anand Acharya<sup>3</sup>, G. V. S. Ramesh<sup>4</sup>

<sup>1</sup>Assistant Professor, Department of General Surgery, Konaseema Institute of Medical Science, Amalapuram.

<sup>2</sup>Assistant Professor, Department of Obstetrics & Gynaecology, Konaseema Institute of Medical Science, Amalapuram.

<sup>3</sup>Professor & HOD, Department of Pharmacology, Konaseema Institute of Medical Science, Amalapuram.

<sup>4</sup>Statistician, Konaseema Institute of Medical Science, Amalapuram.

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### ABSTRACT

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#### BACKGROUND

Breast cancer is one of the five most common types of cancer among women. Vast majority of diseases that occur in breast are benign. With the use of mammography, ultrasonography and fine needle biopsy, the diagnosis of breast diseases has become easy and also it is helping in early diagnosis of malignancy and better treatment of it.

#### MATERIAL AND METHODS

A prospective study was undertaken starting in January 2015, of the entire patient with breast disease referred to or attending the Department of General Surgery, Konaseema Institute of Medical Sciences, Amalapuram, A.P.

#### RESULTS

One hundred fifty nine new patients were included in to this study from January 2015 to May 2016. Out of one hundred fifty nine patients, biopsy/FNAC was done for one hundred five patients. Most usual final diagnosis was normal followed by benign cystic lesion that was in twenty patients. Fibroadenoma was next common diagnosis in fifteen patients. Ductal carcinoma of the breast was final diagnosis in two patients.

#### CONCLUSION

In our study, we have found that benign breast disease was most common final diagnosis, out of that fibrocystic disease was more common than fibroadenoma. Two patients were diagnosed to be duct cell carcinoma.

#### KEYWORDS

Breast Disease, Epidemiology, Fibrocystic Disease of Breast.

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**INTRODUCTION:** The class mammalian is distinguished from other animals by highly evolved modified appendages known as mammary glands or breast. The mammary gland is a unique organ in that it is not fully formed at birth, undergoes cyclical changes during reproductive life. The breasts are composed of specialised epithelium and stroma that may give rise to both benign and malignant lesions.<sup>(1)</sup> Breast cancer is one of the five most common types of cancer among women.<sup>(2)</sup> Vast majority of diseases that occur in breast are benign. With the use of mammography, ultrasonography and fine needle biopsy, the diagnosis of breast disease has become easy and also it is helping in early diagnosis of malignancy and better treatment of it.<sup>(3)</sup> But in spite of all these things, the incidence of breast cancer is high in Asia. Awareness towards breast diseases has increased among the women of various age groups. The patients are approaching surgeons or the physician with various clinical presentations.

So an epidemiological study is required to study the pattern of breast diseases and its proper diagnosis to evaluate the health planning at national level by considering regional variation, and implementation of various programs to decrease the risk and also prevent the death.

**MATERIAL AND METHODS:** A prospective study was undertaken starting in January 2015, of the entire patient with breast disease referred to or attending the Department of General Surgery Konaseema Institute of Medical Sciences, Amalapuram, A.P. Before start of study approval was obtained from institutional ethics committee. Informed written consent was obtained from the entire patient. All the patients were followed until a final histological diagnosis has reached. Mammography was performed by Allengers Iso mammo (Analog) MAM-VENUS (3.5/5kw). Ultrasonography was done by Philips Clear View CV 650 machine. Histological procedure was done in Department of Pathology. The specimens were received in 10% buffered formalin and processed in autoproductors. Paraffin embedded sections were stained with the routine haematoxylin and eosin method.

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*Corresponding Author:*

*Dr. Ananth Lakshmi,*

*Assistant Professor, Department of General Surgery,  
Konaseema Institute of Medical Science, Amalapuram.*

*E-mail: anand\_kims@yahoo.co.in*

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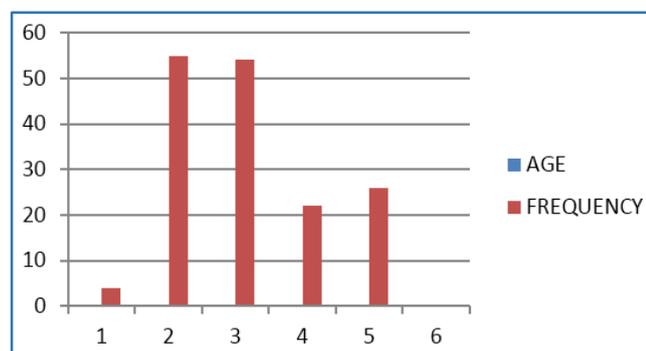
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**RESULT:** One hundred fifty nine new patients were included in to this study from January 2015 to May 2016. Two patients were below 20 yrs. of age. Fifty five patients were between 21 to 30 yrs. age group.

Fifty four patients were between forty one to fifty years of age, rest twenty six patients were above fifty years of age.

Age	Frequency
1-20	2
21-30	55
31-40	54
41-50	22
51-60	26

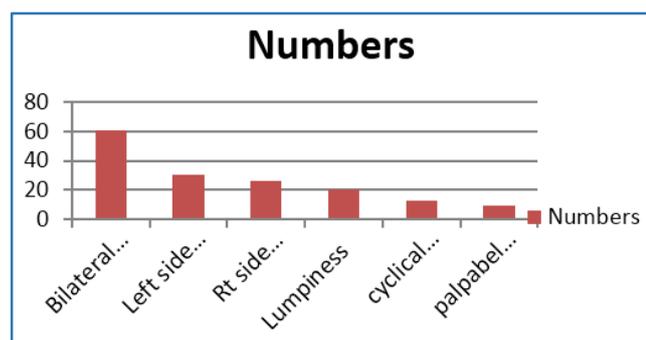
**Table 1: Age Distribution**



**Fig. 1**

Clinical Presentation	Numbers
Bilateral Mastalgia	61
Left Side Mastalgia	30
Right Side Mastalgia	26
Lumps	20
Cyclical Mastalgia	13
Palpable Mass	9

**Table 2: Clinical Presentation**

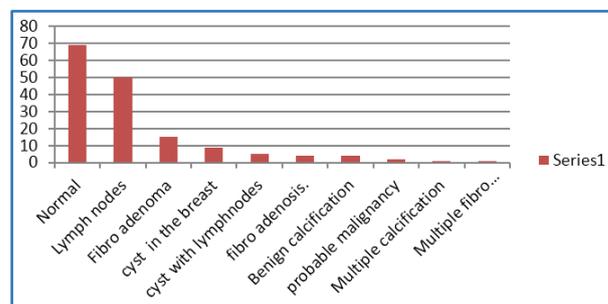


**Fig. 2**

From Table 3 it is clear that in mammography based diagnosis, as usual, was a normal finding in 69 patients. Fibroadenoma was next common diagnosis followed by cyst. Fibroadenosis was found in four patients. Benign calcification was diagnosed in four patients. Probable malignancy was diagnosis based on mammography in two patients. Benign calcification was found in four patients.

Normal	69
Lymph Nodes	50
Fibroadenoma	15
Cyst in the Breast	9
Cyst with Lymph nodes	5
Fibroadenosis	4
Benign Calcification	4
probable Malignancy	2
Multiple Calcification	1
Multiple Fibroadenoma	1

**Table 3: Diagnosis Based on Mammography**

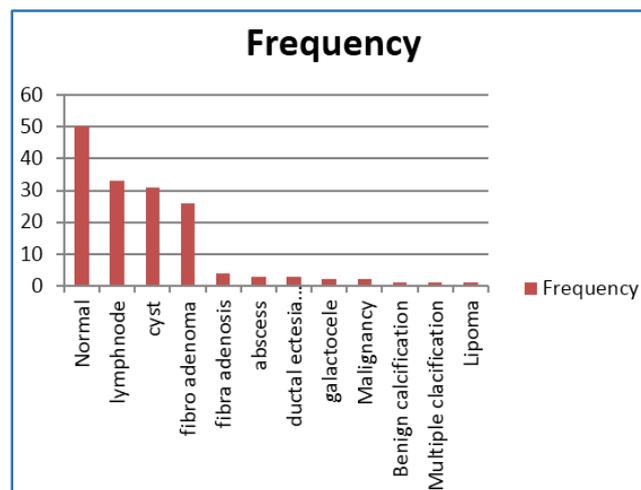


**Fig. 3**

As per Table-4, fifty patients were diagnosed to be normal. Lymph node and cysts were found in 64 patients. Fibroadenoma was found in 26 patients. Fibroadenosis was diagnosed in four patients. Duct ectasia was finding in three patients and two patients were diagnosed to be malignant.

Character	Frequency
Normal	50
Lymph node	33
Cyst	31
Fibroadenoma	26
Fibroadenosis	4
Abscess	3
Ductal Ectasia (Inflammatory)	3
Galactocoele	2
Malignancy	2
Benign Calcification	1
Multiple Calcification	1
Lipoma	1

**Table 4: Diagnosis Based on Ultrasonography**



**Fig. 4**

From Table-5, it is clear that out of one hundred fifty nine patients, biopsy/FNAC was done for one hundred five patients. Most usual final diagnosis was normal followed by benign cystic lesion that was in twenty patients. Fibroadenoma was next common diagnosis in fifteen patients. Benign breast disease was final diagnosis in ten patients. Fibroadenosis was found in six patients. Benign phyllodes tumour was found in two patients. One patient was diagnosed with tubercular mastitis. Ductal carcinoma of the breast was final diagnosis in two patients. One patient was finally diagnosed with mesenchymal tumour.

Character	Frequency
Normal	46
Fibrocystic Disease of Breast	20
Fibroadenoma	15
Benign Breast Disease	10
Fibroadenosis	6
Abscess	2
Benign Phyllodes Tumour	2
Tubercular Mastitis	1
Ductal Carcinoma of the Breast	2
Mesenchymal Tumour	1

**Table 5: Diagnosis Based on FNAC Biopsy**

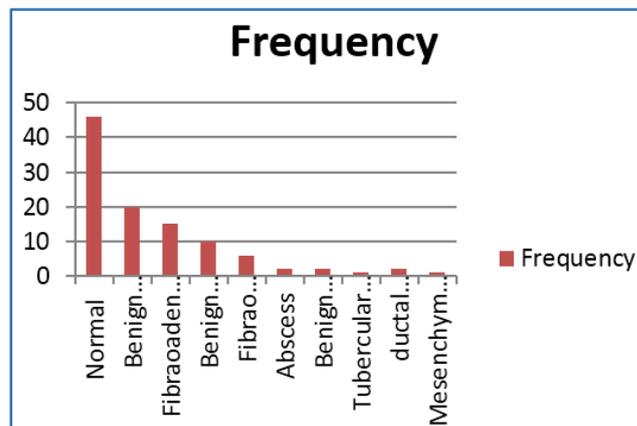


Fig. 5

Character	0-20	20-30	30-40	40-50	50-60
Fibrocystic Diseases Of Breast	0	6	8	4	2
Fibroadenoma	1	8	6	0	0
Benign Breast Disease	0	0	6	3	1
Fibroadenosis	0	3	3	0	0
Abscess	0	0	1	1	0
Benign Phyllodes Tumour	0	0	1	1	0
Tubercular Mastitis	0	1	0	0	0
Mesenchymal Tumour	0	1	0	0	0
Ductal Carcinoma of the Breast	0	0	0	2	0

**Table 6: Age wise Frequency of Disease**

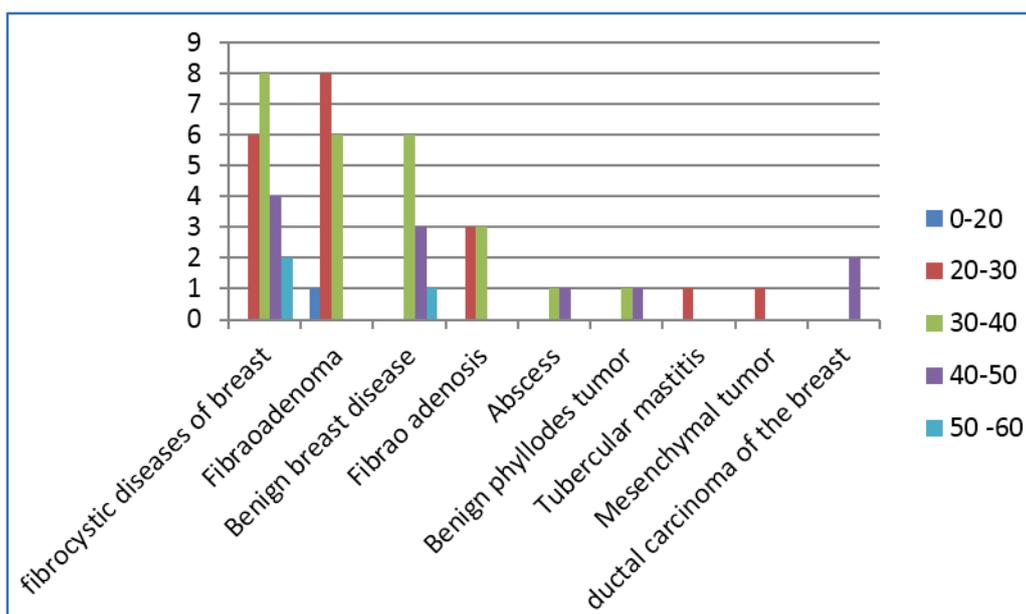


Fig. 6

From Table 6, it is clear that fibrocystic, fibroadenoma and fibrocystic diseases were common in reproductive age group. Benign phyllodes tumour was found in women of 40 years and above age. Carcinoma was found in age above 40 years.

**DISCUSSION:** In our study, we have found that breast diseases were common in reproductive age group that is between 20 to 40 yrs. of age which is similar to the study of various authors, Swapnil et al.<sup>(4)</sup> Bilateral mastalgia was a common presentation, then right or left side of the breast which is not as per the study of Christopher et al. As per them, left side involvement was more but here my consideration was limited to clinical presentation of patients with breast diseases.<sup>(5)</sup> In our range of work, we have found that benign disease was 54%, normal breast finding was 43.8% and carcinoma was 2%, this finding is similar to the work of Chetty et al., P. J. Cox et al. and Yeon G P et al.<sup>(6,7,8)</sup>

Out of 57 benign breast lesions most common diagnosis was fibrocystic diseases of the breast and fibroadenoma was second most common diagnosis, but this finding is not similar to the work of Priya et al., and Siddiqui et al.<sup>(9,10)</sup> But in study of Siddiqui et al., it is found that cystic disease of the breast was second most common diagnosis after fibroadenoma. In the study of Rasheed et al.<sup>(11)</sup> also it is found that fibrocystic diseases are second common diagnosis, but the study of Davis et al.<sup>(12)</sup> and Bratow S A et al.<sup>(13)</sup> support our study. Two patients were diagnosed to be ductal cell carcinoma of the breast, which is the most common carcinoma in Rasheed et al. study also.<sup>(11)</sup> Two cases of phyllodes tumour was also diagnosed which is similar to the work of Monika Rathi et al.<sup>(14)</sup> Only one case of tubercular mastitis was found out of 159 patients which is similar to Sudarshan et al. study of 499 patients. He found only 2 cases of tuberculosis of breast.<sup>(15)</sup> Age wise distribution of breast diseases are similar to the work of other authors.<sup>(9,11,12)</sup>

**CONCLUSION:** In our study, we have found that benign breast disease was most common final diagnosis, out of that fibrocystic disease was more common than fibroadenoma. Two patients were diagnosed with ductal cell carcinoma and two patients were having benign phyllodes tumour. One case of tubercular mastitis was also found. With the use of mammography, ultrasonography and biopsy/FNAC, it has become easy to diagnose breast disease in advance so that proper treatment can be started early. With the availability of epidemiological study of local region, health services can also be properly provided.

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