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A Study of Patterns of Breast Lesions in the Tertiary Care Centre of Bastar Region.

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Abstract: *This is a retrospective study of breast lesions conducted in the Government Medical College, Jagdalpur, Bastar from January 2015 to January 2017, i.e. of 2 years. As Bastar is a backward area and people here are not aware about the investigation criterias, they come with advanced disease with related complications.*
About 200 cases were studied by histopathological examination, of which the commonest benign tumour was Fibroadenoma and malignant tumour was Infiltrating Ductal Carcinoma – Not Otherwise Specified.
So, the main aim of this study is to find out the patterns, distribution of breast lesions in various age groups and proportion of benign and malignant lesions in our institute.

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I. Introduction

Breast diseases constitute heterogeneous group of lesions, and show variety of disease patterns ranging from inflammatory lesion, benign breast disease to invasive cancers[1]. Approximately 200,000 cases of breast lesions are diagnosed annually[2]. Of these, carcinoma breast is 19% to 34% of all cancers in the female population[3]. In India, it forms the second common malignancy after carcinoma cervix[4] and is detected in 20 per 100,000 women[5]. Benign breast diseases are more prevalent as compared to malignant and inflammatory[6, 7, 8, 9]. Due to lack of awareness and education, patients present with advanced disease. The pattern and etiology of breast disease differs in different countries[10, 11].

The aim of this study is to find out the patterns, distribution of breast lesions in various age groups and proportion of benign and malignant lesions in our institute.

II. Materials And Methods

This retrospective study was conducted in the pathology department of Government Medical College, Jagdalpur, Chattisgarh, over a period of 2 years from January 2015 to January 2017. The biopsy samples of breast and mastectomy specimens were received in our department. Histopathological examination done by standard procedures using 10% formalin, paraffin embedding and stained by hematoxyline and eosine stains. A total of 200 cases were studied.

III. Results

In male breast, total 6 cases were present, of which 4 cases were of Gynaecomastia and 2 were of IDC-NOS.

TABLE NO-1. AGE WISE DISTRIBUTION OF BENIGN AND MALIGNANT LESIONS.

AGE	BENIGN LESIONS WITH %	MALIGNANT LESIONS WITH %
< 20 YEARS	68 (45. 94%)	00
21-30 YEARS	43 (29.05%)	2 (3.84%)
31-40 YEARS	25 (16.89%)	15 (28.84%)
41- 50 YEARS	10 (6.75 %)	18 (34.61%)
51- 60 YEARS	2 (1.35%)	11 (21.15%)
>61 YEARS	00	06 (11.53%)
TOTAL	148	52

A total of 200 cases were studied over a period of 2 years. 148 cases were benign lesions and 52 cases were of malignant lesions. Most of the benign lesions belonged to age group 11-20 years followed by 21-30 years. Malignant lesions were in the age group of 31-60 years. 194 were female patients and 6 were male patients, and left breast was mainly involved i.e. 53.5%. In benign disease, Fibroadenoma was the commonest

i.e. 60.8%, followed by Fibrocystic Disease(12.8%), Infections(4.7%), Tubular Adenoma, Usual Ductal Hyperplasia, Gynaecomastia,and Fibroadenoma with Adenosis (2.7%), Hamartoma (2%), Lactating Adenoma, Galactocoele, Intraductal Papilloma, Accessory breast (1.4%), Sclerosing Adenosis, PASH (0.7%).
Amongst the malignant group, Infiltrating Ductal Carcinoma- Not Otherwise Specified, the commonest lesion constituting 80.8%, followed by Invasive Lobular Carcinoma (5.7%), Intracystic Papillary Carcinoma, Apocrine Carcinoma (3.84%), Mucinous Carcinoma and Metaplastic Carcinoma (1.9%).

FIGURE NO. 1 DISTRIBUTION OF BENIGN AND MALIGNANT LESION AND SIDE OF INVOLVED BREAST.

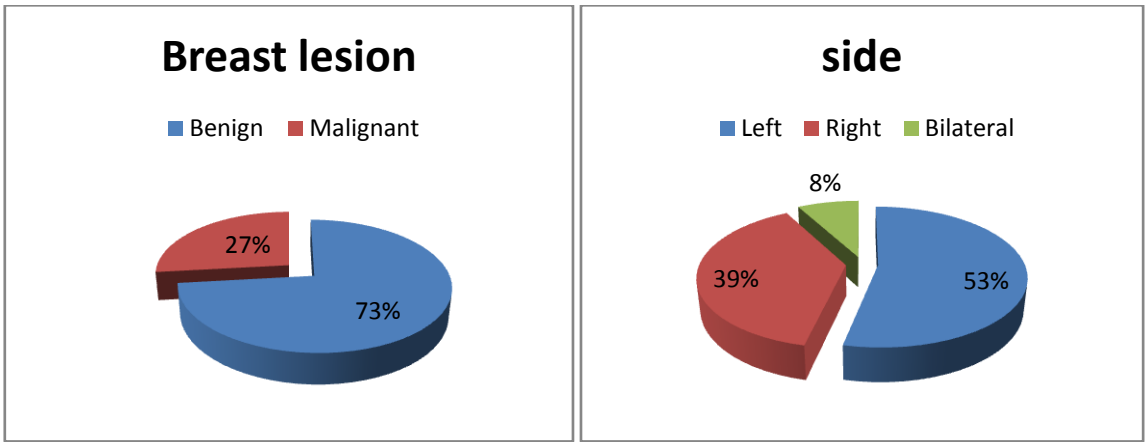


FIGURE NO. 2 SEX WISE DISTRIBUTION OF BREAST LESIONS.

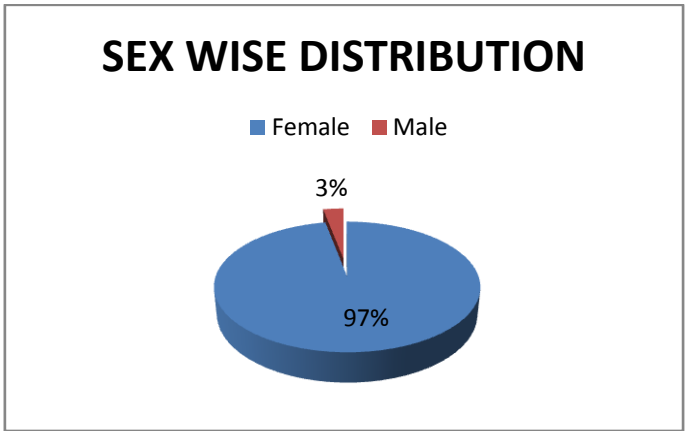


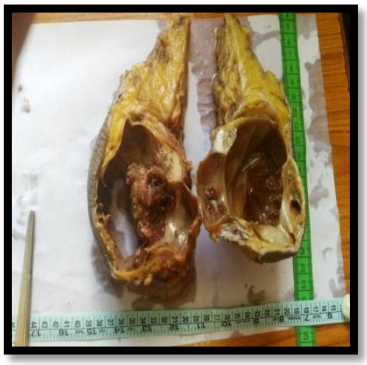
TABLE NO.2 HISTOMORPHOLOGICAL DISTRIBUTION OF BENIGN LESIONS

BENIGN LESIONS	NO. OF CASES	PERCENTAGE
FIBROADENOMA	90	60.8%
FIBROCYSTIC DISEASE	19	12.8%
INFECTIONS & INFLAMMATIONS	7	4.7%
TUBULAR ADENOMA	4	2.7%
USUAL DUCTAL HYPERPLASIA	4	2.7%
GYNAECOMASTIA	4	2.7%
HAMARTOMA	3	2%
FIBROADENOSIS	2	1.4%
FIBROADENOMA WITH ADENOSIS	4	2.7%
LACTATING ADENOMA	2	1.4%
GALACTOCOELE	2	1.4%
INTRADUCTAL PAPILLOMA	2	1.4%
ACESSORY BREAST	2	1.4%
SCLEROSING ADENOMA	1	0.7%
PASH	1	0.7%

TABLE NO 3. HISTOMORPHOLOGICAL DISTRIBUTION OF MALIGNANT LESIONS

MALIGNANT LESIONS	NO. OF CASES	PERCENTAGE
INFILTRATING DUCTAL CARCINOMA	42	80.8%
INVASIVE LOBULAR CARCINOMA	3	5.7%
INTRACYSTIC PAPILLARY CARCINOMA	2	3.84%
APOCRINE CARCINOMA	2	3.84%
MUCINOUS CARCINOMA	1	1.9%
METAPLASTIC CARCINOMA	1	1.9%
MEDULLARY CARCINOMA	1	1.9%

GROSS AND MICROSCOPIC PICTURES OF BREAST LESIONS



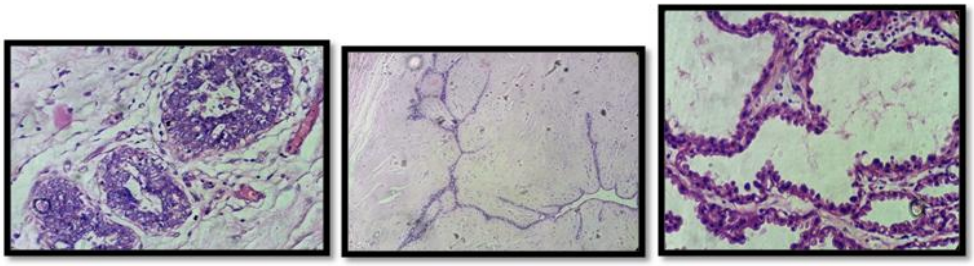
INTRACYSTIC PAPILLARY CARCINOMA

MUCINOUS CARCINOMA

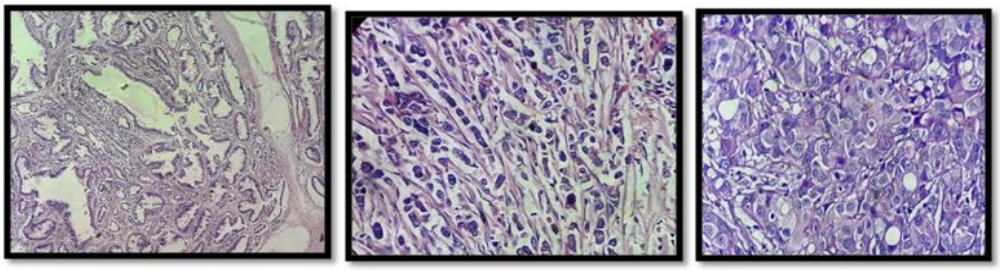
SCLEROSING ADENOSIS

INFILTRATING DUCTAL CARCINOMA

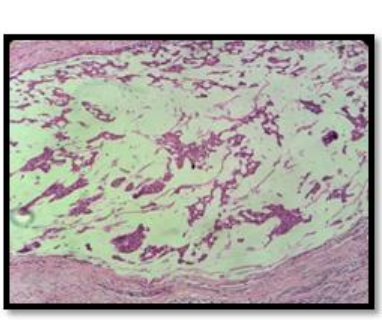
MICROSCOPIC PICTURES OF BREAST LESIONS



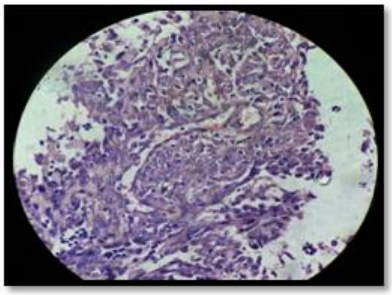
USUAL DUCTAL HYPERPLASIA **FIBROADENOMA** **GALACTOCOEL**



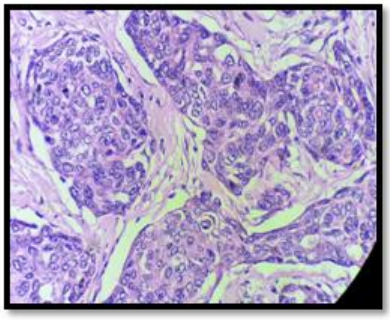
PAPILLOMA **INVASIVE LOBULAR CARCINOMA** **APOCRINE CARCINOMA**



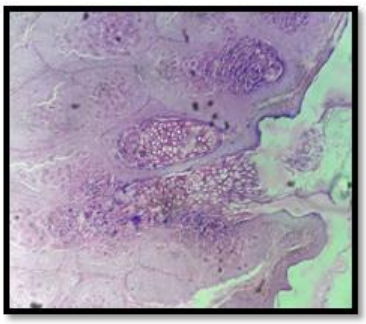
MUCINOUS CARCINOMA



INTRACYSTIC PAPILLARY CARCINOMA



INFILTRATING DUCTAL CARCINOMA



MOLLUSCUM CONTAGIOSUM

IV. Discussion

Breast lesions are detected very commonly now days, due to awareness, knowledge, and most importantly self examination done by patients. Earlier people here in Bastar region, were unaware of the disease and were not properly guided, untreated, leading to uncontrollable end stage disease and its complications leading to increased mortality and morbidity.

In our study, 45.94 of benign lesions were found in the age group <20 years of age and no malignant lesions were found in this age group, similar results were obtained by Kalyani et al i.e. 26.35% of benign disease and no malignant lesion. Ali Ageep found 37.16% of benign lesion in age group 21-30 years and 0.15% of malignant lesion in age group <20 years. Peak age group for malignant lesions was 41-50 years of age which is compared with other studies as shown in the Table no. 4.

Table no. 4: Age wise comparision with the other studies

Age group	Present study		Ali Ageep study		Kalyani et al study	
	Benign	Malignant	Benign	Malignant	Benign	Malignant
<20 years	45.94%	0%	20.9%	0.15%	26.35%	0%
21-30 years	29.05%	3.84%	37.16%	0.58%	20.15%	0%
31-40 years	16.89%	28.84%	16.11%	1.31%	20.93%	7.75%
41-50 years	6.75%	34.61%	3.77%	5.66%	6.20%	6.98%
51-60 years	1.35%	21.15%	0.87%	5.52%	2.33%	5.43%
>60 years	0%	11.53%	3.49%	4.95%	1.55%	2.33%

In the present study, out of 200 cases, 74% of cases were benign and 26% were malignant, correlating with other studies shown in the table number in which Kalyani et al[1], Arya et al[13], Rasheed et al[14], Arunima et al[15], Zena Habeeb et al[10], Nazar Hussain et al[16]and Malik R[17], studies were comparable with our study and showed almost equivalent results that benign lesions are more common than malignant ones.

Table no. 5 :BENIGN MALIGNANT PATTERN COMPARED WITH OTHER STUDIES

	Present Study	Kalyani et al	R.C.Arya	Rhasheed et al	Arunima et al	Zena habeeb	Nazar Hussain et al	Malik R
BENIGN	74%	77.5%	62.66%	78%	71.9%	63%	54.071%	89%
MALIGNANT	26%	22.5%	37.34%	22%	28.1%	13.2%	24.1%	11%

Our study found that mainly left sided breast was involved by the disease (53.5%). Our findings are similar to the studies done by Raju et al[18], Kalyani et al[1], Ngwogu et al[7], whereas right side dominance was seen in the studies of Mima. B. Sangma[19] (48%) and M. Kumar[20] (47.63%).

In this study Fibroadenoma was the most common benign lesion, with a peak incidence in the 2nd and 3rd decade, followed by fibrocystic disease. Kalyani et al[1], Arunima et al[15], Jadhav et al[21], Pankaj et al[9], Dayanand et al[22], Amna Khurshid[23], and Anmod G. L[24] , also found similar findings in their study. Among the malignant lesions, infiltrating ductal carcinoma- not other specified followed by invasive lobular carcinoma and then intracystic papillary carcinoma. Kalyani et al[1], Arunima et al[15], Jadhav et al [21]also found IDC-NOS commonest malignancy, but their 2nd commonest malignancy was different from our study.

We found 98% female patients and 2% male patients in our study. In kalyani et al study, percentage of male patients was higher than male patients of our study i.e. female was 86% and male was 13.2%. M.A. Mil et al found 94.11% female patients and 5.85% male patients.

V. Conclusion

In our study we found Benign lesions are more common than Malignant lesions with a peak incidence in the 2nd and 3rd decade. Malignant lesions are common in the 40-60 years of age. Left breast was most commonly involved. Female patients were 98%. Most common benign lesion was Fibroadenoma and malignant was Infiltrating Ductal Carcinoma-Not Otherwise Specified.

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