Original Research Paper

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Pathology

CYTOLOGY OF BREAST LUMPS – A STUDY OF 498 CASES

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ABSTRACT

BACKGROUND: Breast lump is one of the common indication for FNAC in pathology department.FNAC is cost effective and can prevent unnecessary surgery.

METHODS: FNAC was done in 498 cases in two years period in patients presented with breast lump along with axillary lymphnode if any.We asscessed the cytological diagnosis by light microscope and categorise the lesions by age,size of lesion,type of lesion and lymphnode metastasis.

RESULTS: Age ranges from 12 years to 90 years most of the patients were in 30 -40 years age group.fribroadenoma is the commonest lesion followed by infiltrating duct cell carcinoma.

CONCLUSION: FNAC serves as rapid economical and reliable tool for the diagnosis of palpable breast lesion.

KEYWORDS :

INTRODUCTION :

Diseases of breast are quite common and breast Lump is one of the Common cause for their presentation in the Outpatient Surgical department. Breast diseases are mostly revealed on touch or sight and they are diagnosed by FNAC and confirmed by Biopsy. FNAC procedure is safe, reliable and time saving out door procedure which not only helps in diagnosing the breast disease but also help in planning of treatment.

MATERIALS AND METHODS:

Aim of the study is to see the distribution of different types of breast lesions among females who come for FNAC to Pathology Department in Kurnool Medical College Kurnool in a period of 2 years. FNAC was done after taking written consent from the patient. The slides were stained with H & E Stain and examined under Microscope.

RESULTS :

Total of 498 cases were subjected to FNAC.Age of patients were from 12 years to 90 years. Maximum Number of cases are observed in 31 – 40 yrs i.e.,124 cases (24.9 %) followed by 20 – 30 yrs 120 cases (26.2%) most common Cytological diagnosis is Fibro adenoma – 197 cases (39.5%) followed by Duct cell carcinoma 82 cases (16.5%) and Fibrocystee disease 56 cases (11.24%) other cases observed were Fibroadenosis 43 cases 8.6% Duct papilloma 3 cases 0.6%, Duct Ectasia 5 cases 1.0%, Phylloides 2 cases 0.4%,Granulomatous mastitis 7 cases 1.4%, Mastitis 31 cases 6.2%, ADH 32 cases 6.5%, Galactocele 15 cases 3.01%, Atypical Fibroadenoma 17 cases 3.41%, Sebaceous Cyst 2 cases 0.4%, Fat Necrosis 1 case 0.2%. The smears are reported as inadequate in 5 cases comprising 1%. Fibroadenoma being the most common Cytological diagnosis was observed mostly in 20 – 30 years age group. 56 cases 11.25%, followed by 30-40 yrs 45 cases 9.03%, maximum number of Carcinoma were observed in > 50 yrs 34 cases 6.82%, Inflamatory lesions were most commonly observed in 20 – 30 yrs age group. Granulomatous mastitis were observed in 7 cases 1.4% and non specific mastitis in 31 cases 6.2%.

The more number of ADH cases were observed in 40 – 50 yrs 13 cases 2.6%, followed by > 50 yrs 11 cases 2.2%. The size of the breast lumps we have attempted FNAC ranges from 1 cm to 10 cm and Incidence of breast lumps in both breasts is almost equal.

Among 82 cases of duct cell carcinoma, 36 cases 7.2% presented with Axillary Lymphnode and only 8 cases 1.6% showed positivity for Malignancy others were reported as non specific Lymphadenitis.

AGE INCIDENCE OF BREAST LESIONS

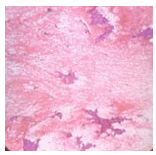
	10 -20	20-30	30-40	40-50	> 50	Total
Fibroadenoma	37	56	45	34	25	197
Fibroadenosis	2	16	11	8	6	43
Fibro Cystic Diseases	2	21	16	12	5	56
IDCC	-	2	22	24	34	82
Duct Papilloma	-	1	1	-	1	3
Duct Ectasis	-	1	2	2	1	6
Phylloides	-	-	1	1	-	2
Granulomatous	-	2	1	3	1	7
Mastitis	-	11	7	7	5	30
ADH	-	2	6	13	11	32
Galacto Cele	-	6	8	1	-	15
Atypical Fibroadenoma	-	2	4	6	5	17
Sebaceous Cyst	-	1	1	-	-	2
Inadequate	-	-	1	2	2	5
Fat Necrosis	-	-	1	-	-	1
	41	**121**	**127**	**113**	**96**	**498**

CYTOLOGICAL DIAGNOSIS OF BREAST LUMPS

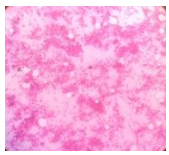
Type of Lession	No.of cases	Percentage (%)
Fibroadenoma	197	39.5%
Fibroadenosis	43	8.63%
FCD	56	11.24%
IDCC	82	16.46%
Duct Papilloma	3	0.6%
Duct Ectasia	5	1.%
Phylloides	2	0.4%
Granulomatous	7	1.4%
Mastitis	31	6.2%
ADH	32	6.4%
Galactocele	15	3.01%
Atypical Fibroadenoma	17	3.4%
Sebaceous Cyst	2	0.4%
Inadequate	5	1%
Fat Necrosis	1	0.2%
Total	**498**	**100%**

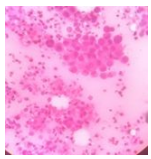
Percentage of non neoplastic & neoplastic lesions

Type of Lesions	No .of cases	Percentage (%)
Inflammatory	61	12.25%
Benign	323	64.84%
Malignant	82	16.46%
ADH	32	6.42%
Total	**498**	**100%**



Fibroadenoma





Duct cell carcinoma

DISCUSSION :

Age of the study group ranged from 12 yars to 90 years with mean age of 38 years. Our study correlated with Ahmed etal from sudan who

reported 15-85 yrs of age range with a mean of 37 years. Kumar reported 6-72 yrs of Ti wari reported 17-56 yrs with mean age of 34 and 32 years respectively.

In our study, Right breast was involved in 48.5% and left breast was observed in 48% and 3.5% cases involved both. Kumar study observed a little predominance of right breast 51.4%.

In our study, Granulomatous mastitis occurred in 7 cases (1.4%), Among them 3 cases were in 40-50 yrs and 2 cases in 20-30 yrs age group.

In our study 56 cases(11.24%) of FCD were observed. Their incidence were highest in 20 – 30 yrs age group - 21 cases(4.2%) followed by 30 – 40 yrs age group 16 cases (3.2%). In the study of Kumar, Fibrocystic disease comprises 41.2% with average age of 31 years and most of cases were within 30-40 years.

Fibroadenoma is the major cause of breast lump in our study 197 cases (39.5%). Most of them occurred in 20-30 yrs 56 cases (11.24%) followed by 30-40 yrs 45 cases (9.0%). This fiding was similar to 28% findings of Ahmed etal and Kumar findings 22% and Mayur etal 23.7%.

ADH cases were 32 in our study contributing to 6.4% Pradhan and Dhakal reported 2.3%, YIP etal 3.81% and Ahmed etal 2.5% our study Corelated with them.

Regarding malignant cases in female breast, we found 82 cases (16.5%) among them 81 cases were IDCC and one was colloid carcinoma Rupon etal study shows 13.74% of malignant cases in FNAC Pradhan and Dhakal reported 15.5% Malignant cases in their study which are close to our study.

During aspiration, we found 36/82 cases of Malignancy presented with Pallpable axillary LN. 8 cases showed metastatic deposit Sapinoetal found 49 - (16.44%) malignant cases with Metastasis and Sinha etal reported 45.76% with Metastatic axillary LN.

Inadequate material is noted in 5 cases(1.0%) Inadequate material has been reported as 20% by Hitchcock etal and 25.3% by Park and Ham. It reduces sensitivity of Cytology.

CONCLUSION :

The most common lesion in our study is Fibroadenoma and it is most common observed in age group of 20 -30 years. Malignancy was detected as second common lesion and majority was found in > 50 yrs. FNAC is a rapid and effective method for the primary categorization of Palpable breast lumps into benign, Malignant Atypical, suspicious and unsatisfactory categories.

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