

# Spectrum of Cytological Findings in Patients With Breast Lesions : An Institutional Experience



## Medical Science

**KEYWORDS :** FNAC, breast lump, carcinoma, fibroadenoma

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### ABSTRACT

*Background :* FNAC is being performed as a pre-operative test to evaluate breast lump. The procedure provides a rapid and non-morbid diagnosis before surgery. This study intended to look the frequencies of different lesions in

FNAC of breast lumps.

*Methods:* FNAC was done in a total of 474 patients presented with breast lesions along with suspected enlarged axillary lymph node, if any, in the Department of Pathology of Mahatma Gandhi Hospital, Jodhpur over a period of three years. We assessed the age of the patient, type of lesion and axillary lymph node metastasis in case of malignancies.

*Results:* Age ranges from 13-98 years. Most of the patients were in 21-30 years age group (23.07%). Among the lesions 122 (25.73%) were fibroadenoma, 65 (13.71%) were fibroadenosis, 57 (12.02%) were acute mastitis, 53 (11.18%) were carcinoma, 37 (7.8%) were fibrocystic changes. 45 (36.88%) of fibroadenoma and 20 (52.63%) of carcinoma were in the age group 21-30 years and 60-80 years respectively. Out of 53 carcinoma patients 8 (15.09%) showed metastasis in axillary lymph nodes.

*Conclusion:* FNAC is a simple and reliable method for diagnosis of both benign and malignant lesions quite accurately thus reducing unnecessary surgeries. Though it cannot categorize the lesion in some cases but it can rule out malignancy in most of the cases. Fibroadenoma was the commonest lesion in this study.

### INTRODUCTION

With growing awareness especially about breast pathologies, a lady with a breast lump is one of the commonest presentations in our outpatient departments.

This is a quick-to-perform, easy, patient-friendly outpatient procedure with high percentage of true positives, nearly no false positives, no complications and no requirement of anaesthesia.

FNAC now considered by most a sufficient evidence to proceed to definitive surgery. Apart from reducing patient anxiety, it could help avoid the diagnostic excision / incisional biopsy in most patients. With obvious advantages as mentioned, FNAC is an important patient-friendly procedure in breast lump.

### AIMS AND OBJECTIVES

- To study the frequency distribution of different lesions in FNAC of palpable breast lumps.
- To determine the cytological pattern of various breast lesions.

### MATERIAL AND METHODS

In a period of three years FNAC of consecutive 474 patients presenting in OPD of Mahatma Gandhi Hospital, Jodhpur, were done after taking informed written consent. Palpable axillary lymph node was also selected for FNAC. The records of these patients who had undergone FNAC during the study period were retrieved and information about the age, sex, lymph node and FNAC, were extracted wherever available. FNACs were performed using 23 gauge needles, which is attached to a 10-cc syringe. Smears were made from the aspirated material, air dried, stained with May Grunwald Giemsa (MGG) and examined under a light microscope. Data was recorded regarding the age of the patient, site of involvement, size of the lesion, cytological diagnosis and presence of metastasis in case of malignancies. The cytology results were categorized into 4 groups-

- Inadequate
- Benign
- Suspicious
- Malignant

### RESULTS

The observations and results of our study were tabulated and analyzed as below:

AGE: age of the patienta ranges from 13-98 years.

The maximum no. of patients were in the age group 21-30 years followed by 31-40 years.

AGE(YRS)	No.
Upto 20	69
21-30	138
31-40	115
41-50	62
51-60	25
>60	38
Total	474

### 2.Statistics of age (years) among different diagnoses-

Diagnosis	No. of pt	Mean age	%	Age range
	08	36.75	1.68	25-55
Benign	410	33.16	86.49	13-72
Suspicious	03	36.66	0.63	33-45
Malignant	53	54.18	11.18	30-98
Total	474	40.18	100	13-98

Benign lesions were more common than malignancies.

Fibroadenoma was most common diagnosis.

Lesion category	Diagnosis	No. of pt.
Inflammation	Ac. Mastitis	57
	Chr. Mastitis	02
	Fat necrosis	19
Cystic lesion	Galactocele	21
	Benign Cystic lesion	07
	Fibrocystic disease	37
Benign neoplasm	Fibroadenoma	122
	Benign Phyllodes	02
	Fibroadenosis	63
	BBD	19
	Gynaecomastia	29
Atypia	Suspicious Malignancy	03
	ADH	04
Malignant	Carcinoma	53
Others	Normal breast	24
	Inadequate smear	08

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#### 4. Axillary lymph node status in the carcinoma patients –

Among 53 patients with malignant breast lump, 8 were having palpable axillary lymph nodes at the time of presentation and all these 8 patients showed metastasis from primary breast carcinoma.

Lymph Node status of carcinoma patients	No. of cases	Percentage (%)
Palpable (Metastatic)	08	15.09
Not palpable	45	84.91
Total	53	100

#### CONCLUSION

Fibroadenoma was the major cause of the breast lump upto 50 years of age

Risk of breast carcinoma increases with increasing age, possibly because the women are exposed to hormones for a longer duration

Majority of malignant cases were ductal cell carcinoma

All breast carcinomas with palpable lymph node showed features of metastasis

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