



EVALUATION OF PALPABLE AND RADIOLOGICALLY DETECTED NONPALPABLE BREAST LESIONS BY FINE NEEDLE ASPIRATION CYTOLOGY

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ABSTRACT Fine needle aspiration cytology (FNAC) has become popular as a valuable tool in preoperative assessment of breast masses, and it shows high accuracy, sensitivity and specificity.

The aim of this work is to discuss the cytological features of benign and malignant breast lesions of both category and nonpalpable radiologically detected lesions.

Present study constitute 80 cases of breast lumps found in male as well as in female out of which 19 cases were nonpalpable and 61 cases were palpable lumps. The nonpalpable lumps were detected radiologically.

The study conducted in outdoor and indoor department of Rama Medical College Hospital and Research Centre and associated hospitals Kanpur.

KEYWORDS :

INTRODUCTION:-

Fine needle aspiration cytology (FNAC) has become popular as a valuable tool in preoperative assessment of breast masses, and it shows high accuracy, sensitivity and specificity.

The aim of this work is to discuss the cytological features of benign and malignant breast lesions of categorised both as palpable and nonpalpable but radiologically detected lesions.

MATERIAL AND METHODS:-

The present study constitute 80 cases of breast lumps found in male as well as in female. Out of total 61 cases, 19 were nonpalpable and 61 were palpable lumps. The nonpalpable lumps were detected radiologically.

The study was conducted in outdoor and indoor department of Rama Medical College Hospital and Research Centre and associated hospitals Kanpur.

TABLE-1

Age incidence According to Palpable and Nonpalpable lesions with Percentage.

Age Group (Years)	Male				Female			
	Palpable	%	Nonpalpable	%	Palpable	%	Nonpalpable	%
11-20	-	-	-	-	5	8.8	1	5.2
21-30	-	-	-	-	17	29.9	7	36.9
31-40	2	50	-	-	14	24.5	6	31.6
41-50	2	50	-	-	14	24.5	2	10.5
51-60	-	-	-	-	7	12.3	3	15.8
Total	4	100	-	-	57	100	19	100

TABLE-2

Correlation between clinical diagnosis Mammography / USG, FNAC and histopathology

	Clinical Diagnosis	Mammography / USG	FNAC	Histopathology
Benign	8	8	8	8
Malignant	10	10	9	10
Total	18	18	17	18

Triple test (Clinical Examination, Mammography / USG, FNAC) was concordant in 17 out of 18 cases. Out of 10 malignant cases on Mammography / USG, one was reported as atypical on FNAC, while the histopathology confirmed the diagnosis of malignancy. The above observations emphasize the need of histopathological examination in non concordant triple test.

TABLE-3

Histologic diagnosis	Cases	FNA		Diagnostic accuracy
		Correct	Incorrect	

Malignant	14	13	1	92.8%
Benign	10	10	0	100%
Total	24	23	01	

Correlation between histologic diagnosis and FNA

Out of 14 cases reported malignant on histopathology, one was reported as atypical ductal hyperplasia on cytology. One case although reported as malignant on cytology as liposarcoma but on histopathological examination, it was reported as infiltrating duct carcinoma with apocrine metaplasia.

The sensitivity was found to be 100% at 95% confidence limit (75.3% - 100%). The specificity was 90.9% at 95% confidence limit (58.74% - 99.77%). The positive predictive value was 92.86% at 95% confidence limit (66.11% - 99.82%). The negative predictive value was 100% at 95% confidence limit (69.17% - 100%). The p value = 0.0001, which is statistically significant. The overall diagnostic accuracy of FNAC was 95.8%.

CONCLUSIONS

Present study of 80 patient's comprised of palpable and non-palpable lesions of breast. To evaluate clinical examination was done and FNAC when and where required was performed. Study concluded that.

- Maximum incidence of malignant lesions was in the age group of 41-50 years (52.6%). and benign lesions was between 21-40 years.
- 76.3% of cases presented with breast lump while 23.7% cases had no palpable lump.
- On FNA, out of 80 lesions only one yielded inadequate cytology. The overall accuracy of aspiration cytology was 95.8%. For benign lesions accuracy rate was 100%. while for malignant lesion it was 92.8%.
- The sensitivity was found to be 100% at 95% confidence limit (75.3%-100%). The specificity was 90.8% at 95% confidence limit (58.7%-99.7%) The positive predictive value was 92.8% at 95% confidence limit (66.1%-99.8%) The negative predictive value was 100% at 95% confidence limit (69.15%-100%). The p value = 0.0001, which is statistically significant.
- Among benign palpable lesions, fibroadenomas, and fibrocystic disease and gynaecomastia were the common lesions. Among the benign non palpable lesions fibroadenosis was the most common lesion.
- Among 40 cases subjected to mammography / USG, 31 were benign and 9 were malignant. Out of 31 benign lesions, 30 were reported as benign on FNAC and 1 cytologically inconclusive. Out of 9 malignant lesions 1 was reported as false negative on FNA.
- Among histologically proved and mammography / USG screened 18 cases, 8 were reported as benign and 10 were reported malignant. Out of these, 1 was diagnosed as atypical ductal hyperplasia on FNAC.
- The accuracy of FNAC in our series was 95.8%.

- On mammography one nonpalpable malignant lesion could be picked up. It was concluded that mammography / USG plays an important role in early detection of breast cancer. Also routine breast screening after age of 40 years could lead to early diagnosis of cancer and can reduce the burden and complication of extensive surgery.
- The diagnostic triad of mammographic / USG and FNAC examination (triple test) was able to diagnose majority of the lesions correctly.