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TRIPLE ASSESMENT IN EVALUTION OF BREAST LUMP

General Surgery

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ABSTRACT

Back ground

- Breast cancer is the 2ND most common malignancy in women worldwide, however, benign lesions of the breast are far more frequent than malignant ones.
- With the use breast imaging and the extensive use of needle biopsies, the diagnosis of a benign breast disease can be accomplished without surgery. It is to distinguish between in situ and invasive breast cancer so most appropriate treatment modality can be established.

KEYWORDS

BACKGROUND

- The triple test for breast diseases involve,

1. Clinical assessment.
2. Imaging modality– Mammography.
3. Fine needle aspiration biopsy/cytology.

In modified triple test ultra-sonogram is used instead of mammography.

- When combined in the triple assessment, a definitive diagnosis can be made when the diagnoses concur, suggesting that the triple assessment has a high sensitivity, specificity.
- Mammography is preferred method for breast cancer screening.
- But when mammography reveals a non-palpable breast lesion further imaging studies are often required to more precisely identifying the characteristics and location of the mass

AIMS AND OBJECTIVES:

- To study role of the triple assessment test in making a pre-procedural diagnosis of palpable breast lumps.

MATERIALS AND METHODS:

Source Of Data:

- The material of the study comprised of 50 patients admitted with breast lumps admitted NARAYANA MEDICAL COLLEGE AND HOSPITAL during period of December 2020 to September 2021.
- Method of Collection of Data :A Proforma drafted for the study of all patients with breast complaints, like lump, nipple discharge, Evaluation will be done by history, clinical examination, mammography, Ultrasonogram, FNAC and HPE.
- Sample size: 50 patients.
- Sampling method: Simple random sampling.

Inclusion Criteria:

Females between 10 and 70 years presenting with breast lump with or without associated symptoms.

Exclusion Criteria:

Patients with Open biopsy and HPE performed prior to presentation to our hospital.

RESULTS

Age Distribution:

- Out of 50 cases, 16(31%) patients had malignancy and rest 34(69%) patients had a benign lesion. All the patients were above the age of 15 years.
- The mean age if malignancy cases was 51+/- 9.8(28-67 years).
- The mean age of benign cases was 27.63+/- 8.25(10-60 years).

Site of Breast Lump:

Out of 50 patients, 2(4%) patients had lesions in both the breasts. All these were benign.

- 10(64%) patients of malignant lesions were in the Right breast. Similarly, benign lesions also had Right sided predominance.
- Following chart and table summarise the laterality of lesions in the breast, Histopathological diagnosis

Breast lump side	Benign	Malignant	Total
Both	2	0(0.00%)	2(4%)
Left	13	6(36%)	19(40%)
Right	19	10(64%)	29(56%)
TOTAL	34	16(100%)	50(100%)

Quadrant Distribution:

46% of malignant lump was in the right upper outer quadrant compared to 38.3% of benign lump.

- Distribution of Cases on **Clinical Examination**: After history and complete physical examination, provisional diagnosis of benign lesion was made in 38(75%) patients, and that of malignant lesions in 12(25%) patients.

Lesions	Number of cases	Percentage
Benign	38	75%
Malignant	12	25%
Total	50	100%

- Distribution of Cases **According to Ultrasound Scans**: On ultrasound scan,35(70%) lesions were diagnosed as benign compared to 15(30%) patients to have malignant features. In this calculation, suspicious lesions have been Converted And Statistically Treated As Malignancy

Lump Defined On	TOTAL CASES	PERCENTAGE
US SCAN		
Benign	35	70%
Malignant	15	30%
Total	50	100%

- Distribution Of Cases According To **Mammography**: Of 16 Patients Who Underwent Mammographic Examination, 13(84%) Patients Had Malignant Features.

Table: Distribution Of Cases According To Mammography.

Mammography	Total	Percentage
Benign	3	16%
Malignant	13	84%
Total	16	100%

- Distribution of **Cases as per FNAC**: FNAC resulted in 34(68%) lesions to be classified as of benign nature and16 (32%) as malignant or suspicious of malignancy. Following chart and table summarise these findings.

Table: Distribution of cases in FNAC results:

FNAC	Total	Percentage
Benign	34	68%
Malignant	16	32%

Concordence in Physical Examination, Imaging and FNAC :

94% ofcases i.e. 47 cases give concordant results while results of 3 patients shows non-concordance either benign or malignant.

- But none of the results shows the malignant one as benign
- The sensitivity was 96.29% whereas specificity and positive predictive value were 100% respectively.
- The overall accuracy of triple test was 98.9%.

DISCUSSION

- Epidemiological Data: Carcinoma of the breast Is the most common site specific cancer in women.
- Our study shows majority of patients had benign lump (69%). Of 50 patients who selected for study after fulfilling inclusion criteria, all patients were regularly followed-up till completion of study.
- In the present study the mean age of malignant cases was 51 + 9.8(28-69 years).
- The mean age of benign cases was 27.63 + 8.25(10-60years).
- This finding is similar to some other studies reporting age ranging from 45-55 years.
- All the lumps were found more commonly situated at the upper and outer quadrants of breast, 68% of benign lumps and 74% of malignant ones, compatible to findings with other studies and also because of the anatomical organisation of breast volume, more than 3/5 th of the breast tissue lies in upper outer quadrant

CONCLUSIONS

- The clinical examination has low sensitivity and thus should always be corroborated with other modalities of investigation.
- FNAC gives fairly good results in terms of sensitivity and specificity.
- USG and Mammography have given consistent and acceptable results.
- When three modalities of investigation viz. physical examination, imaging, and FNAC is combined the sensitivity, specificity and accuracy increases more than any of individual tests.
- When all three diagnostic modalities are agreement for a diagnosis of malignant disease, the combination of clinical examination, FNAC, USG has excellent concordance with the result of excisional biopsy, and in this situation definitive treatment may be carried out.
- If all three modalities are in a agreement with diagnosis of benign disease, a period of close observation with repetition of FNAC may be safely entertained.

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