

STUDY OF MODIFIED TRIPLE ASSESSMENT IN BREAST LUMPS

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ABSTRACT

The study is conducted with the objective of assessing the combined and individual reliability of the Modified Triple Test in making a pre-procedural diagnosis of palpable breast lumps. A prospective cross sectional study of 100 female patients attending the outpatient department at the Department of General Surgery, Rajah Muthiah Medical College & Hospital, Chidambaram, with the complaint of a palpable lump/lumps in the breast was undertaken. Our results show that the diagnostic accuracy of combined physical examination breast USG and FNAC/CNB is comparable to that of histological examination

Keywords: Modified triple assessment, Breast Lumps

1.INTRODUCTION

The study is conducted with the objective of assessing the combined and individual reliability of the Modified Triple Test in making a pre-procedural diagnosis of palpable breast lumps.

The components of the Modified Triple Test are:

Clinical Examination (C/E)

Breast Ultrasonogram (USG)

Fine Needle Aspiration Cytology/Core Needle Biopsy (FNAC/CNB)

2.MATERIALS AND METHODS

A prospective cross sectional study of 100 female patients attending the outpatient department at the Department of General Surgery, Rajah Muthiah Medical College & Hospital, Chidambaram, with the complaint of a palpable lump/lumps in the breast was undertaken.

Male patients and female patients with advanced Breast Cancer that makes diagnosis obvious were excluded from the study (n=32).

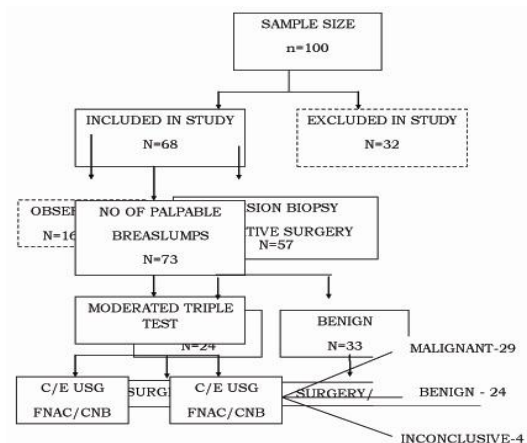
The inclusion criteria were:

1. Females >30 years
2. C/o breast lump – clinically palpable as a localized lesion differing from the surrounding breast tissue.

Each patient was put through the Modified Triple Test. On the basis of a systematic clinical examination, the lumps were grouped as – Malignant, Benign, inconclusive. Malignant – III defined, heterogeneous mass with sharp angulations; presence of micro calcifications.

- a. Benign lesions were either cystic or solid Cysts – FIBROADENOMA, FIBROADENOSIS, and BREAST ABSCESS.

Ultrasound examination also included the contralateral breast, axillae, internal mammary lymph nodes. For deeply seated lesions Sono-guidance was utilized to aspirate cysts and to take biopsies. After this, FNAC/CNB was performed by the attending surgeon and sent for cytological / Histopathological examination.



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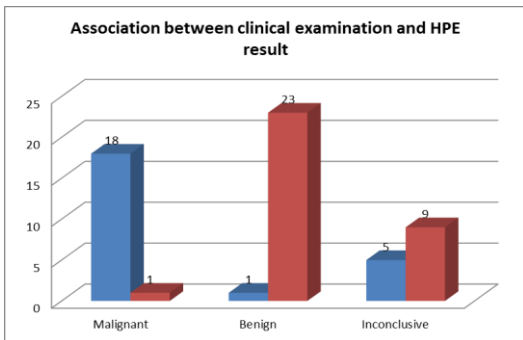
3.RERSULTS

ECHOGENICITY OF LESIONS AND HPE:

| Echogenicity | Malignancy | Benign |
|--------------|------------|--------|
| Mixed | 10 | 6 |
| Hypoechoic | 14 | 23 |
| Hyperechoic | 0 | 4 |

ASSOCIATION BETWEEN CLINICAL EXAMINATION AND HISTOPATHOLOGY RESULT

| Clinical Examination | Histopathology | |
|----------------------|----------------|--------|
| | Malignancy | Benign |
| Malignant | 18 | 1 |
| Benign | 1 | 23 |
| Inconclusive | 5 | 9 |



STATISTICAL ANALYSIS OF THE STUDY

| | C/E | USG | FNAC/CNB | MTT |
|----------------------------------|--------------------|-------------------|---------------------|---------------------|
| Sensitivity | 75% (53 – 80%) | 92% (72 – 99%) | 100% (83 – 100%) | 100% (83 – 100%) |
| Specificity | 97% (82 – 100%) | 85% (67 - 94%) | 100% (87 - 100%) | 85% (67 - 94%) |
| Positive Predictive Value | 95% (70 - 99%) | 81% (61 - 93%) | 100% (83 - 100%) | 83% (64 - 93%) |
| Negative Predictive Value | 84% (64 - 90%) | 93% (76 - 99%) | 100% (87 - 100%) | 100% (85 - 100%) |
| 'P' value | <0.001 | <0.001 | <0.001 | <0.001 |

4.CONCLUSION

Detection and management of a breast mass requires an optimal environment for interpretation , relevant use of clinical information, technically excellent imaging procedures, proper interpretation of finding and pertinent recommendations.

Our results show that the diagnostic accuracy of combined physical examination breast USG and FNAC/CNB is comparable to that of histological examination.

A fine collaboration between experienced radiologists, pathologist and the clinician is required.

Ultrasound when replacing mammography serves as effective an imaging modality in palpable breast lumps and is more comprehensive.

CNB is a suitable alternative when FNAC in inconclusive and may offer additional information.

Thus the use of MTT to complement findings in differential diagnosis of a lesion in a symptomatic women seeking medical care deserves acceptance and further evaluation. This may lead to less delay in treatment when malignancy is suspected and to avoidance of surgical exploration when a benign nature of lesion is suspected.

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