SENSITIVITY AND SPECIFICITY OF TRIPLE ASSESSMENT IN DETECTING BREAST CANCER AT THE ONCOSURGICAL UNIT KANDY

K de Silva, HA Amaratunga, SPM Peiris, A de Silva,
MR Illeperuma
Oncosurgical Unit Teaching Hospital Kandy
Department of Anatomy, Faculty of Medicine, Peradeniya

Introduction

Triple assessment is considered as the best method of diagnosing breast cancer all over the world. However the sensitivity and specificity of its components can change according to each unit.

Objective

To assess the sensitivity and specificity of clinical breast examination (CBE), fine needle aspiration cytology (FNAC) and mammography, taking histopathology as the gold standard, in detecting malignant lesions, at the Oncosurgical Unit Kandy.

Methodology

304 patient records with a histopathological diagnosis of benign (159) and malignant (145) breast conditions were scrutinized. CBE was performed on all patients by the same specialist (Consultant Oncosurgeon). Mammographic evaluation was conducted by a consultant radiologist and FNAC was reported by a consultant pathologist.

Results and Discussion

Clinical impression had a sensitivity of 92.6% and a specificity of 91.5%. The positive predictive value (PPV) was 95% and the negative predictive value was (NPV) 87.9%. Mammography had a sensitivity of 82.6% and specificity of 81% the PPV was 95% and the NPV was 52.5%. FNAC had a sensitivity of 89.7% and a specificity of 91% the PPV of 97.3 and the NPV was 71.6%.

Only one case was considered as benign by all 3 methods and proved to be malignant on biopsy. The sensitivity of triple assessment in detecting malignant lesions was 99.3% and the specificity was 100% with a PPV of 100% and a NPV of 98.6%. These values are similar to internationally published data[1]

Conclusions

The clinical impression has the highest sensitivity and specificity in this Unit. Triple assessment is very sensitive and specific in identifying malignant lesions of the breast at this Unit.