ABSTRACT

Aims and Objectives:

1. To study the mammographic and ultrasonographic characteristics of breast lesions in patients.
2. To categorize the detected breast lesions according to BI-RADS.
3. To correlate the categorized breast lesions (BI-RADS) with FNAC.
4. To compare the sensitivity of mammography with ultrasonography in diagnosing benign and malignant breast lesions.

Materials and Methods:

Cross-sectional study in 66 patients. The study time period of this study was from June 2015 - June 2016; on females above 30 years of age who were referred to the Department of Radiodiagnosis with breast lesions and having BIRADS 2 and above on imaging.

Observation was done for the following:

- Nature of the lesion on mammography and ultrasonography.
- FNAC of the lesion and the histo-pathological report assessment was done.
- Finally sensitivity and specificity of each modality was calculated individually and also combined.

STATISTICAL ANALYSIS:

- The data was analysed by SPSS 17.0 with independent t-test.
Results:

Our data indicate that sensitivity and specificity of ultrasound was statistically significantly greater than mammography in patients with breast lesions for the detection of breast cancer and benign lesions particularly in dense breast women.

Conclusion:

Our results indicate that breast density is important predictors of the accuracy of mammography. Breast ultrasound is more accurate than mammography in women who are young. In women with dense breasts, ultrasound appeared to be superior to mammography and could be used as an appropriate initial imaging test in those women. The accuracy of mammograms increased with fatty breasts in older age group.

The definitive features of benign and malignant lesions were correlating with FNAC, so if the lesion is found to be 100% benign (BI-RADS 2 category) in USG and mammography, FNAC may be avoided. All the lesions which were detected as BI-RADS 5 in either USG or mammography or both were found to be 100 % malignant. USG could detect almost all the malignant lesions except in three of the cases.

Combined USG and mammography yielded the best result and can be used as a screening modality to detect malignancy earlier and to treat the patient earlier.

Key words: Biopsy, breast, mammography, palpable lumps, ultrasonography.