



Can we Rely on Imaging Alone in Breast Lesions?

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ABSTRACT

With the increasing awareness of breast cancer, most women routinely do a self breast examination. Most of the breast lesions detected are benign ones and they simply cause panic among people. FNAC is routinely used to characterize these lesions which is an invasive procedure. However incidence of benign breast diseases is increasing, so proper evaluation is necessary as many people think all breast lumps are malignant. so to find-out and proper evaluation is necessary. In view of the above, we studied Sonomammogram versus FNAC in evaluation of breast lesions. This study was done on 60 patients who were referred to our radiology department between January 2014 to June 2015 with diagnosis of breast lesions. In our study there was statistically significant agreement between the FNAC and sonomammography with a p value of less than 0.001. we concluded that use of noninvasive sonomammography is as good as FNAC in diagnosing breast lesions for open surgery.

KEYWORDS

Introduction

With the increasing awareness of breast cancer, most women routinely do a self breast examination. Most of the breast lesions detected are benign ones and they simply cause panic among the people. FNAC is routinely used to characterize these lesions which is an invasive procedure. Sonomammogram is a noninvasive technique and can give results similar to FNAC in diagnosing the breast lesions.

Benign breast diseases accounts for the most common cause of breast problems in modern day practices. Upto 30% of women will suffer from a benign breast diseases requiring treatment at some time or other in their lives. The important aspect is to differentiate a benign breast diseases from a malignant lesion. It is under these circumstances that benign breast diseases assume significance. The incidence of Replace benign breast disease is generally not well estimated as it is not always symptomatic. However incidence of benign breast disease is increasing, so proper evaluation is necessary as many people think all breast lumps are malignant. In view of the above, we studied Sonomammogram versus FNAC in evaluation of breast lesions.

Materials ad methods

This study was done on 60 patients who were referred to our radiology department between January 2014 to June 2015 with diagnosis of breast lesions. These patients underwent sonomammography and based on the echogenicity, margins and other characteristics they were divided into benign and malignant lesions and the findings were co-related with FNAC findings.

Inclusion criteria

- Patients between 15 years to 75 years
- Patients consenting for study

Exclusion criteria

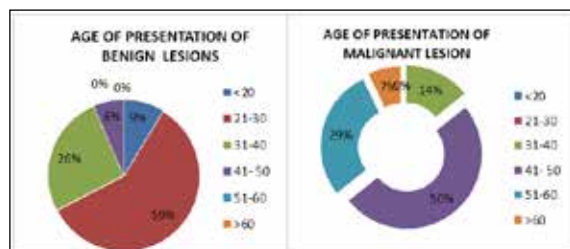
- Patients undergone prior breast surgeries or biopsies
- Patients referred with a pathologically known diagnosis

Results and observations

Table 1: Type of lesion

	Radiology	FNAC
Benign	48	46
Malignant	12	14

Figure 1 :Age of presentation of breast lesion



In our study there was statistically significant agreement between the FNAC and sonomammography with a p value of less than 0.001

Discussion

The increase in the literacy and awareness among women especially about breast pathologies and breast lumps has now started to be one of the common presentations in outpatient departments. Clinical examination in most patients has to be confirmed by a cytology report The pioneering work at the Karolinska institute in Stockholm by Torsten Lowhagen and his colleagues, in the 60s and 70s helped to popularize a new minimally invasive technique of diagnosis known as Fine-Needle Aspiration Cytology (FNAC). With the introduction of FNAC, which has proved to be an important asset in evaluation of breast lesions with a high degree of accuracy, sensitivity, and specificity¹.

Fine needle aspiration cytology gave highest predictive value 97.3% with a sensitivity of 93.5% and a specificity of 98.1%. Lopez-Ferrer² reported a 79.3% predictive value out of 362 fibroadenoma aspirates with most diagnostic errors occurring in the older age group.

FNAC proved to be a useful and reliable tool in the evaluation of lumps in the breast.

The use of noninvasive diagnostic procedures such as FNAC and ultrasound can reduce need for open surgery³.

The difference in the sensitivity of FHCB (free-hand percutaneous core biopsy) and FNAC was statistically significant ($P < 0.005$, Wilcoxon matched pair test). Since 94.8% of radiologically-suspicious lumps were shown to be cancers, we advocate FHCB for all patients presenting with radiologically suspicious palpable lumps⁴. Hussain et al⁵ et al in their study showed that left side lesions (54%) are more common in the breast which are similar to our study. In a study done by Tiwari et al⁶, Homesh et al⁷ the age distribution was between fifteen and sixty-five years and the maximum patients were seen in the thirty one to forty year group (30%).

Conclusion : The use of noninvasive sonomammography is as good as FNAC in diagnosing breast lesions for open surgery

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