



ROLE OF FINE NEEDLE ASPIRATION CYTOLOGY IN DIAGNOSIS OF BREAST LUMP

Gynaecology

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ABSTRACT

Lump breast may be due to benign or malignant growth. Breast carcinoma is the most common malignant tumour and the leading cause of death from cancer in women in developing countries and world. In conjunction to clinical and palpable breast lump examination Fine Needle Aspiration Cytology (FNAC) is a unique, simple and non expensive procedure in diagnosis of these lumps which helps clinician to plan correct management.

KEYWORDS

FNAC, Fibroadenoma, Lump Breast, Carcinoma

INTRODUCTION –

Breast lump FNAC as a diagnostic tool was first used in Scandinavian country. FNAC is now a well established procedure for diagnosing lump breast; staging of breast carcinoma², in particular preoperative axillary lymph node FNAC and intraoperative sentinel node imprints³, diagnosis of metastatic disease at distant sites following treatment for carcinoma⁴, thyroid, lymph node, and various organs. Breast lump is a matter of worry for patient as well as clinician. Excision biopsy of the lesion to establish whether it is benign or malignant is not an acceptable mode of diagnosis. FNAC has an advantage of being an immediate and excellent method for onsite examination and one step diagnosis at breast outpatient clinics. Since the majority of patients attending a breast clinic have benign disease, they benefit from rapid diagnosis and discharge from the clinic⁴.

AIMS AND OBJECTIVE-

The aim of this study to find out the common causes of breast lump and to determine sensitivity and specificity of FNAC of breast lump.

MATERIAL AND METHOD –

This retrospective study of FNAC of breast lump in Tertiary care centre at Medical college bhilwara. FNAC findings were correlated with finding of the histo pathological record to determine the sensitivity and specificity of FNAC. A total number of one hundred cases with breast lump came to out patient department of general surgery, government medical college bhilwara. Out of these designed Performa used to consent and date of patient, for history of lactation and pregnancy included in Performa. All lesions were followed by biopsy inadequate lesions were advised for repeat FNAC. Both benign and malignant tumors were followed.

A written consent was taken before performing FNAC we used 23 G Needle and 10 ml disposable syringe for pricking and aspiration. Local anaesthesia was used for the palpable lump. FNAC given us cytological diagnosis.

Criteria for selection of patients-

All female with unknown diagnosis of breast lump Age of patients was between 17 to 70 years. We divided FNAC in following groups –

- 1) Fibro adenoma breast -37%
- 2) Fibrocystic disease of breast –30%
- 3) Duct cell carcinoma -21%
- 4) Paget disease of breast -1%
- 5) Chronic granulomatous disease (T.B.) -6%
- 6) Cystosarcoma of phylloloid tumour -3%
- 7) Lactational adenoma breast -1%
- 8) Others –Hydatid cyst of breast -1%

It is widely accepted that FNAC is less traumatic and easy technique for the case need open biopsy because we repeated the FNAC in cases of inadequate smears without any delay.

We have proper FNAC room on the site with trained staff. we provided FNAC free for all BPL (below poverty line) and senior citizen patients and 55 Rs/- per FNAC under PPP mode under auto finance scheme.

RESULT –

The study was done at tertiary health care level in newly permitted medical college bhilwara; 100 cases were taken for FNAC in cases of palpable lump breast out of which 21 cases was duct cell carcinoma and remaining breast lump were benign and chronic diseases. All patient were operated and biopsy sent for histopathological examination for confirmation of diagnosis. In cases of carcinoma breast modified radical mastectomy done. FNAC of breast constituted 16 percent of all FNAC Age group of patients ranges 16 years to 70 years with mean age of 43 year. Fibro adenoma was the most common diagnosis, malignancy was diagnosed in 25 percent cases in comparison to previous study done by Tiwari M³ in which he shown malignancy only in 16% cases with sensitivity 90% and specificity 100% and another study by B Lieske, et al The absolute and complete sensitivities were 65 and 82% for FNAC and 80 and 93% for CB in the diagnosis of cancer¹⁰. while in our study sensitivity was 96% with 100% specificity. In cases of chronic granulomatous lesion anti tubercular drugs were given under RNTCP (revised national tuberculosis control programme).

S.No	Age Group	Diagnosis	FNAC Report	Biopsy report
1.	16-40	Fibroadenoma breast	37	35
2.	16-50	Fibrocystic disease	30	29
3.	40-70	Duct cell carcinoma	21	22
4.	16-30	Chronic granulomatous mastitis (T.B.)	6	8
5.	25-45	Cysto sarcoma phylloids	3	3
6.	55	Paget disease of breast	1	1
7.	30	Lactational adenoma	1	1
8.	55	Hydatid cyst of breast	1	1

DISCUSSION –

Much of the world's burden of cancer is in poor and developing countries, where there are often very limited screening measures, early diagnosis, and treatment facilities. There is a growing awareness that significant investment in cancer control measures is required to reduce the burden and suffering in low-resource settings¹. FNAC is a cheap, easy, accurate, and less invasive procedure in the preoperative evaluation of cancers, especially in breast and lymphoid organs². Most clinicians at the surgical outpatient department are aware that tuberculosis is the most common cause of lymphadenopathy in our environment, hence the first differential diagnosis in any child or elderly presenting with lymphadenopathy. Ease of procedure will also be helpful to clinician in our centres to send patients for FNAC for early diagnosis and optimal care for lymphomas as a common cause of lymphadenopathy, rather than given patients array of laboratory tests to rule out tuberculosis³.

CONCLUSION-

FNAC of breast is simple cost effective rapid less traumatic method for diagnosis of breast lump is highly sensitive and specific also can reduce the need for open biopsy. So FNAC should be preceded as diagnostic method for diagnosing breast lump. FNAC must be used as a routine method for determining the nature of breast lump. It was concluded that FNAC report is comparatively same as excision biopsy in most of the cases. In cases of recurrent breast abscess FNAC and Biopsy should be done for confirmation of diagnosis after giving ATT(anti tubercular therapy) patients recovered properly.

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