

Evaluation of Breast Lumps by FNAC- A Two Year Retrospective Study in Greater Gwalior Region



Medical Science

KEYWORDS :

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ABSTRACT

ABSTRACT Introduction : Palpable breast lump is common clinical problem that present to surgeons, gynaecologist and general practitioners. Significant advantage of FNAC (fine needle aspiration cytology) is ability to diagnose invasiveness and thus allow the patient to undergo a single operation including sentinel node biopsy in cases diagnosed as invasive. Aims: The main purpose of FNAC of breast lump is to confirm cancer preoperatively and avoid unnecessary surgery in specific bdition. Material and Method : We were observed 539 cases of breast lump. The record of these cases were retrieved and data regarding age, sex, size of breast lump, other relevant history, etiological diagnosis and corresponding smear were reviewed. Result: We observed that female breast lesions were 450 cases (90.1%) and male breast lesions were (9.8%). Among female, fibroadenoma was most common benign lesions (53%) and ductal carcinoma of breast was most common malignant lesions (95%).

Introduction

Fine Needle Aspiration Cytology is a well-established and widely acceptable, reliable technique in the evaluation of symptomatic breast lesions. The procedure is safe, cost effective, minimally invasive, rapid & as sensitive as biopsy.(2,3,4)

FNAC helps in separation of Malignant lesions that require more radical surgery, from Benign ones that can be conservatively managed.

FNAC also helps in identification of various cytomorphological lesions, as well as the minimal residual disease, recurrent lesion for the purpose of planning therapeutic protocol & eventual follow up.

Following several advantage of FNAC (find needle aspiration cytology) -(8)

1. Immediate diagnosis relieves the patient anxiety and save time.
2. A definite treatment plans can be prepared.
3. It is cost effective, allowing one step definitive surgery including lymph node.

Aims & Objectives

The aims of our present study are as follow Demonstrate the utility, feasibility & accuracy of FNAC & its continuing role in diagnosis of breast lesions. Male breast lesions- Patterns & Incidence of various lesions.

Female breast lesions –Various cytomorphological pattern & incidence of malignancy.

Material methods

This is a 2 year Retrospective Study done in Department of Pathology, GRMC & JAGroup of Hospitals during the period of Sept 2010 to Aug 2012.

Total number of 2763 FNAC weredone during this period of which 539 were Breast Lumps.

The records of these 539 cases were retrieved & data regarding age sex site, size of breast lumps, other relevant history ,cytological diagnosis and corresponding smears were reviewed.

FNAC in all these patients was done by expert faculty by using 22g needle & without any Anaesthesia.

Results

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Total of 539 breast lumps were aspirated during the study period of which 499 cases were reported & 40 were Inconclusive.

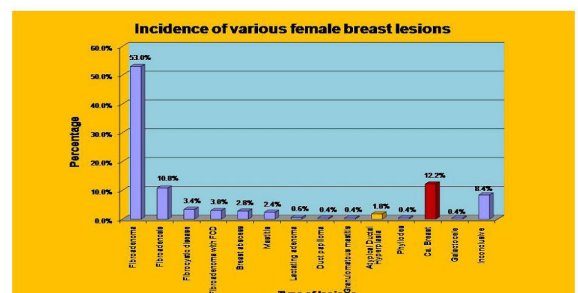
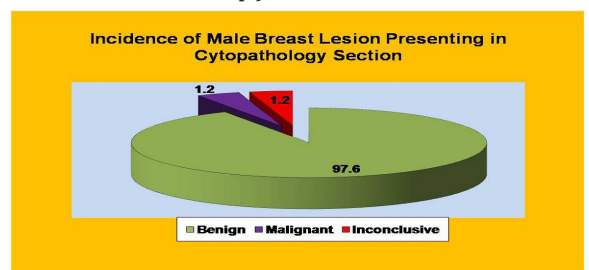
Among the reported cases Female breast lesions were 450(90.1%) & rest were Male breast lesions(9.8%). Among males, Gynaecomastia was found in 47 out of 49(95.9%) & Ductal Carcinoma was found in only 2 cases. (4%)

Among females, the incidence of malignancy was found to be 13.3%. Benign lesions show Fibroadenoma the commonest one (53%) followed by Fibroadenosis (10.8%), Fibrocystic disease (3.4%), Fibroadenoma with Fibrocystic disease (3%), Breast abscess (2.8%) Mastitis (2.4%) Granulomatous Mastitis (0.4%) Lactating adenoma (0.6%) Duct Papilloma (0.4%).

Suspicious for Malignancy category included Atypical Ductal Hyperplasia (1.8%) Phyllodes Tumour(0.4%).

Malignancy in Females was more common on Right side(70%) & Ductal carcinoma was the commonest type (95%)found.

(Corresponding Histopathology was not available in most of the cases in our set up.)



Discussion

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Breast cancer is the most common type of cancer in women, age 40- 50 yrs. It is the second leading cause of cancer deaths, about

250000 women die of this disease every year(1). So early detection & management requires the search for best diagnostic modality(3) & FNAC has been proved to be rapid, reliable, relatively non-traumatic & most Cost effective alternative to excision biopsy.

It is a safe diagnostic & highly accurate method for diagnosing breast lesions (6), differentiating benign & malignant tumours thus obviating the need for radical surgeries(7).

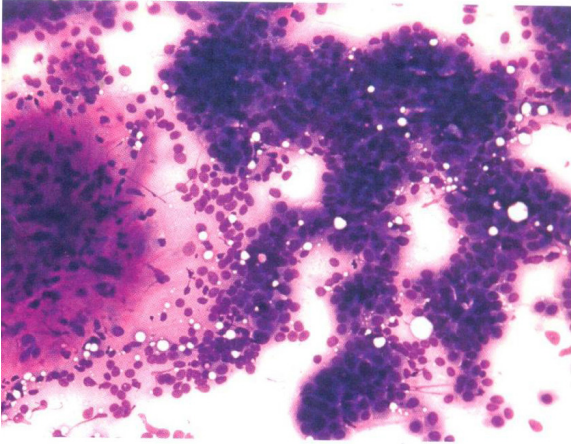


Fig. 1 - Fibroadenoma : Photomicrograph shows Clusters of epithelial cells and associated stromal component and naked nuclei seen in background

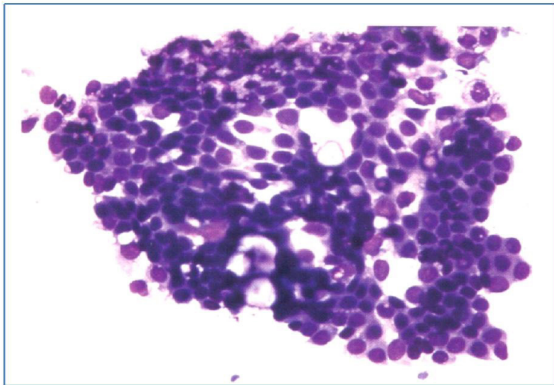


Fig. 2 - Photomicrograph shows Unlayered sheets of uniform looking cells in case of gynecomastia in 17 yrs. male

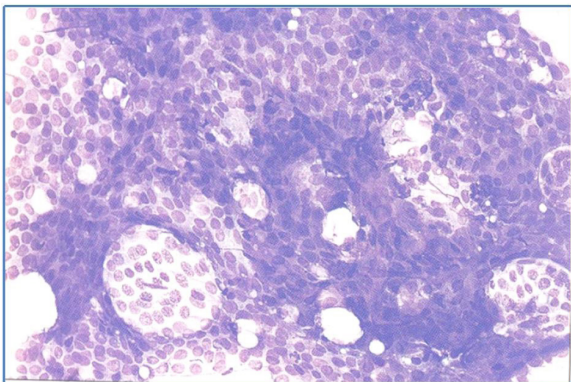


Fig. 3- Atypical Ductal Hyperplasia : Photomicrograph shows sheets of mildly atypical ductal epithelial cells

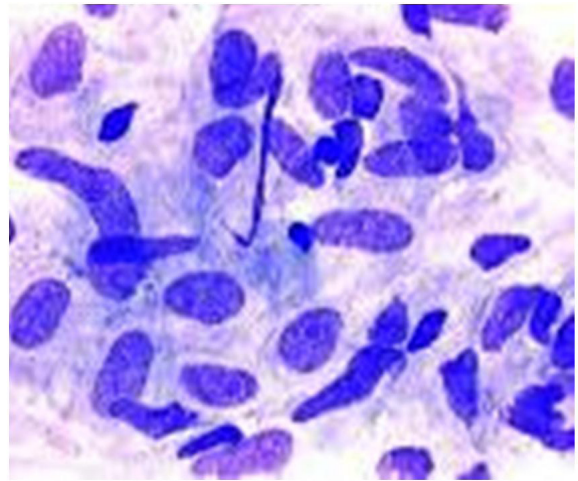


Fig. 4- Photomicrograph shows Epithelioid cells clustered in case of Granulomatous Mastitis

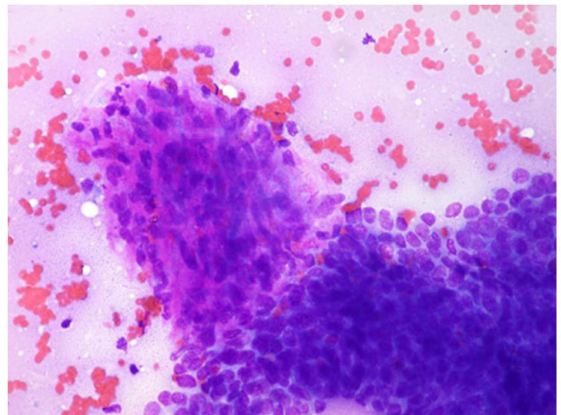


Fig. 5- Photomicrograph shows cluster of mesenchymal cells along with myxoid stroma in case of 42 yrs. female in phyllodes tumor

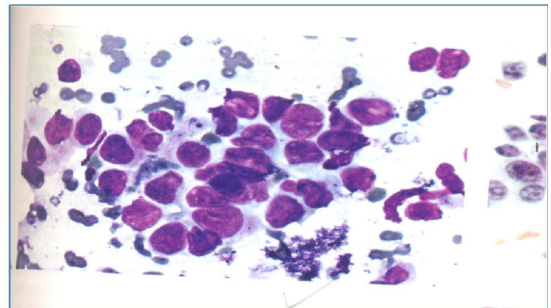


Fig. 6- Photomicrograph shows sheets of malignant epithelial cells in case of ductal carcinoma breast

Conclusion

In era of economic constraints, low allocation of health budgets, increasing cost of diagnostic procedures, patients present late for medical assistance in developing countries like ours, It is recommended that FNAC should be used as Primary Diagnostic Modality in evaluating Breast lesions.

REFERENCE

Rakhshindah Bajwa et al D;/Biomedica vol26 Jul-Dec2010/Bio7-Docp124-129. | (2) Oyama T, Koibuchi Y, Mckee G. Core needle biopsy as a method for breast lesions; comparison with fine needle aspiration cytology(FNA) Breast Cancer 2004;11(4):339-42. | (3) O'NellS, Castelli M, Gattuso P, Kluskens Letal. Fine Needle aspiration Cytology of breast lesions with histopathological correlation. Surgery 1997;122(4):824-8. | (4) McManus DT & Anderson NH. Fine Needle Aspiration Cytology of breast. Current Diagn Pathol 2001; 7: 262-271. | (5) Smith Mj, Heffron ,C.C et al(2012) Fine needle aspiration Cytology in symptomatic Breast lesions- still an important Diagnostic modality? The Breast Journal. 18(2):103-110. | (6) Accuracy of FNAC from breast masses in Thailand, Asian Pac J Cancer Prev 2009;10 623-626. | (7) Needle Aspiration Cytology of breast: Current perspective on the role in diagnosis & management. Odgel et al Acta Med croatica 2008 oct 2008 62(4)391-401. | (8) Orrel and Sterretts 2012, fine needle aspiration cytology, 5th edition. |