



Original Research Article

A Clinicopathological study of breast lumps in patients presenting in Surgery OPD in a referral hospital in Madhya Pradesh, India

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A B S T R A C T

Breast lesions can be of various types from inflammatory to benign to malignant. Some lesions are common in young females while others are more common in elderly age group. The study aim were intend to profiling prevalence and finding out age-related presentation of breast lumps. To find out the prevalence of inflammatory, benign and malignant breast lesions and age related pattern of presentation of patients with various breast lesions. The study comprises analysis of 100 patients attending for FNA cytology at J A group of Hospitals. Detailed history was recorded and clinical examination was conducted. Fine needle aspiration cytology (FNAC) were done and stained by Giemsa technique and were reported. Suspicious cases were confirmed by histopathology examination. Out of the 100 cases analysed, 74% were benign, 20% malignant and the remaining 6% were inflammatory. Among the benign breast disease fibroadenoma was most common accounting for 57% of total cases followed by 9 (9%) fibroadenosis, 2 (2%) lactating adenoma, 1(1%) duct papilloma, 1(1%) mastitis, 1 (1%) apocrine carcinoma, 1(1%) atypical ductal hyperplasia, 1(1%) lipoma. Among malignant lesions, 19 (19%) were ductal cell carcinoma, 1(1%) was apocrine carcinoma of breast. In the age group 15-25 fibroadenoma comprised of 81% cases. There was 1 (3%) cases of ductal cell carcinoma in the 15-20 year age group.

Keywords

Breast lumps, FNAC, Fibroadenoma, Carcinoma breast

Introduction

Breast is a glandular organ influenced by hormones in females with various structures giving rise to different types of lesion and lumps. Benign lesions of breast are the most common lesions which account for 90% of the clinical presentation related to breast (Muritto Ortiz et al.,2002).Of all breast disorders, palpable breast lump is second

most common presentation, the pain being the first (Kumar et al.,1999). The consequences of breast lumps besides creating anxiety result into carcinoma and cause unbearable pain and deformity (Mehmood et al.,2003,Vaidyanathan et al.,2002). Breast tissue in is under the hormonal influence that results in changes

throughout reproductive life (Galvan et al 2002, Kaiser et al.,2003). Fibroadenoma of the breast is a common cause of a benign breast lump in premenopausal women (Houssami et al.,2001, Laren et al.,2003). Fibrocystic disease is a histological term that refers clinically to a large group of syndrome presented as lump or lumpiness (Siddiqui et al.,2001).

Gwalior has not undergone any such study wherein the pattern and prevalence of breast lesions will provide a guideline for clinicians. The purpose of this study is to analyze breast lesions causing breast lump with special reference to patients younger and older than 30 years of age diagnosed by fine-needle aspiration (FNA) and to evaluate the histology of the cases diagnosed as suspicious of malignancy in FNA. Early diagnosis will help in better management of the case, reduce undue anxiety of the patient in benign cases and reduce morbidity and mortality.

Material and Methods

The present prospective study was done in department of Pathology, Gajra Raja Medical College, Gwalior. A total of 100 patients were attended with breast symptomatology i.e., lump, pain or lumpiness over a period of two months during July 2012 to August, 2012 at J. A. Group of Hospitals of Gajra Raja Medical College, Gwalior.

All the cases were included in the study. The findings of history and clinical examination were recorded. Fine needle aspiration cytology (FNAC) was done in patients with palpable lump in breast and suspicious lesions. Suspected cases were sent for histopathological examination. The data were analysed by using various statistical techniques.

Results and Discussion

The present study included a total of 100 patients with breast lumps, out of which 96 (96%) were females and 4 (4%) were males. The cytological findings are depicted in table 1. The diagnosis was made after clinical examination and subsequent FNA cytology and in suspicious cases confirmed by histopathology examination. Overall incidence of inflammatory, benign and malignant lesions is 6 cases (6%), 74 cases (74%), 20 cases (20%) respectively.

Age related pattern

The youngest patient included in the study was 14 years old (fibroadenoma) and the oldest was 81 years old (ductal carcinoma). The largest number of cancer breast was found in 41-45 year age group accounting for 6 (30%) cases. The youngest case encountered was 24 yrs old and the oldest being 81 yrs old. Gynaecomastia was diagnosed in 3 male cases who presented at the age of 39, 53 and 61 respectively.

Incidence of benign conditions of breast is significantly higher than malignant conditions. M. Kumar *et al* (2010) asserted that in Indian rural population the benign breast diseases are 5 to 10 times more common than breast cancers; while Aisha Memon *et al* (2007) referred that in west benign breast lesions are 10 times more common than breast cancers. In present study (2012), benign breast lesions are 4 times more than cancerous lesions. M. Kumar *et al* (2010) observed that incidence of benign breast diseases varies in different geographical areas, and benign breast diseases are common in developing countries but due to lack of education women disregard the breast lump. They suggested that general features of individual breast diseases like incidence, age distribution, symptoms and palpatory

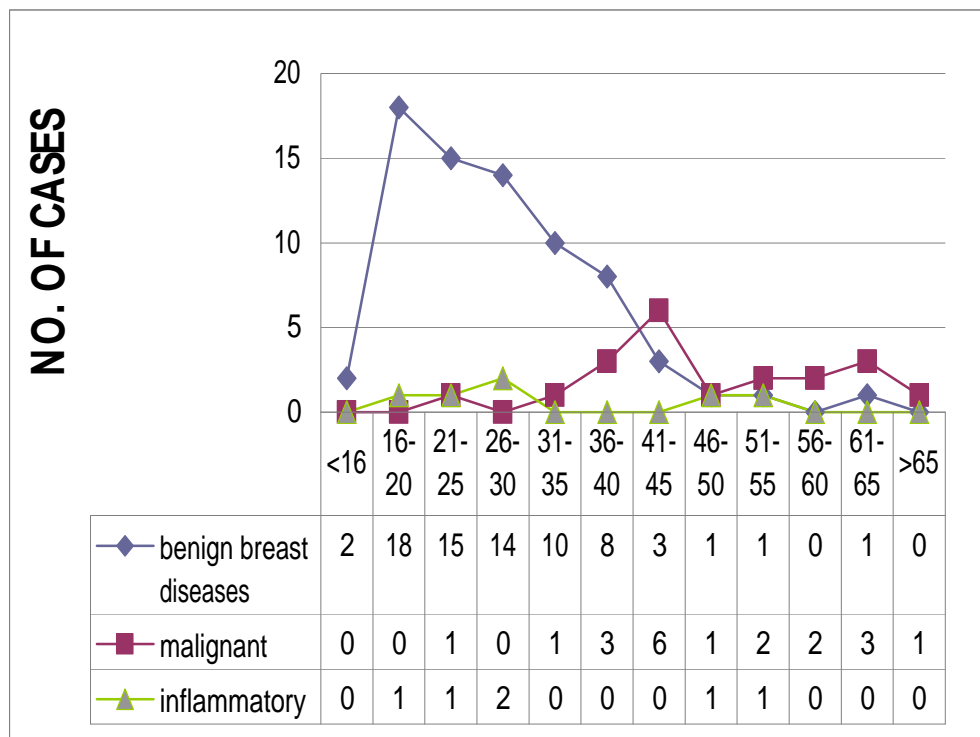
findings are very important and beneficiary for the management of these lesions. Illiteracy, social taboo, unawareness resulting into delay in diagnosis in both

benign and malignant lesions. Such delay in malignant lesions is associated with poor prognosis.

Table.1 Cytological findings

Lesion	Cases
Fibroadenoma	57(57%)
Ductal cell carcinoma	19(19%)
Fibroadenosis/fibrocystic disease	9(9%)
Gynaecomastia	3(3%)
Abscess	3(3%)
Tubercular abscess	2(2%)
Lactating adenoma	2(2%)
Duct papilloma	1(1%)
Mastitis	1(1%)
Apocrine carcinoma	1(1%)
Atypical ductal hyperplasia	1(1%)
Lipoma	1(1%)
Mastitis	1(1%)

Fig.2 Age wise distribution of benign, malignant and inflammatory lesions



Aisha Memon *et al* (2007) described total 58.8% benign cases in a series of 500 cases which is quite less in number as compared to the study conducted by Adesunkanmi *et al* (2001) in Nigeria where 87.2% patients had benign breast lumps. In present study (2012), benign lesions (including 6% inflammatory cases) were found in 80% cases. Therefore, our findings were similar to results of Adesunkanmi *et al* (2001).

Vissa Shanthi *et al* (2011) studied 100 breast lesions and found 28% malignant pathology on cytological grounds, on further study out of 28 cases 23 cases were diagnosed as ductal cell carcinoma, 2 as lobular carcinoma, 1 as medullary carcinoma, 1 as malignant Phyllodes and 1 case was found to be mucinous carcinoma respectively. It was observed that upto 15.5% cases were malignant in a study of Pradhan *et al* (2008) in Nepal. In another study reported from Nigeria, malignant lesions were diagnosed approximately 40% by Mayun *et al* (2008). In our study, we found 20 (20%) cases malignant 19 (95%) cases of which comprising ductal cell carcinoma and 1(5%) case of apocrine carcinoma.

Mortality and incidence is relatively lower in developing countries and other parts of globe in comparison to western population (Khan *et al* 2003). Balkrishna B Yeole *et al* (2003) in an epidemiological study compared the breast cancer incidence of various countries and found that incidence rates were very high in developed countries. The highest incidence was reported in European population living in Zimbabwe i.e. 122.7 in 1 lac population. In US, non-Hispanic whites had a rate of 86.2 per 1 lac population. With contrast to this Asian population has comparatively lower incidence as in Japan 31.1, China 26.5, India (Mumbai) 28.2 per 1 lac population. Balkrishna B Yeole *et al* (2003) also reported life time risk (0 to 74 years) of

breast cancers in Mumbai was 3.3% (1 in 30), Chennai 2.4% (1 in 42) and in Trivandrum it was 2.05% (1 in 50) respectively. In US life time risk of developing breast cancer during entire span of life is 1 in 8 i.e., 12.5% (Parkin *et al* 1997).

Kelsay *et al* (1993) reported that breast cancer is 100 times more common in women than in men. The incidence of breast cancer increases with age, more common in urban population and in women of higher socio-economic group. They also suggested that apart from genetic causes, change in life style is responsible for increase in incidence of malignant breast lesions. In present study, out of 100 cases, 20 cases were malignant. Reason for such findings is possibly that, these are tertiary referral hospital data and breast malignant cases are referred to medical college hospital from large surrounding rural, suburban and urban population.

Out of 100 cases, 74(74%) were benign lesions and 20 (20%) malignant and 6 (6%) were of inflammatory pathology. Benign to malignant breast disease ratio was calculated as 4:1. Most common benign lesion was fibroadenoma 77.02% (57% of all lesions). Eight cases (14.03%) were bilateral, 6 cases(10.52%) had multiple fibroadenoma, 6 cases (10.52%) were recurrent fibroadenoma. Other benign lesions were fibroadenosis, 9 cases (12.16%), lactating adenoma 2cases (2.7%), lipoma ,duct papilloma, atypical ductal hyperplasia 1 case each (1.35%). Out of 100, total 4 male breast lumps were found, out of which 3 (75%) were gynaecomastia and 1(25%) was fibroadenosis. Out of 20 malignant cases, 19 (95%) were ductal cell carcinoma and 1 (5%) was apocrine carcinoma. Maximum number of cancer patients were found in the 41-45 yea age group.

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