

## Research Article

# A Three Year Study of Breast Lesions in Women aged 15-70 years in a Tertiary Care Hospital

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**Abstract:** A retrospective study of 3-years from 31<sup>st</sup> December 2012 to 31<sup>st</sup> December 2009 was undertaken to determine the histopathological spectrum of breast lesions with detailed study of interesting and uncommon cases, the features of which are helpful in the management of the patients. The objective of the study was to estimate the frequency of breast lesions and to compare the results of study with those of other studies. Clinical features and histopathological findings were studied in 72 cases with emphasis on uncommon cases. Out of the 72 cases, benign lesions constituted 77.7% and malignant 22.2%. The commonest benign tumor was fibro adenoma and the commonest malignant tumor was infiltrating duct carcinoma (NOS). Uncommon cases in benign group were duct ectasia with adenosis, papilloma and lactating adenoma. Metastasis of infiltrating duct carcinoma of breast to the skin was an interesting case. Identification of benign lesions like duct ectasia with adenosis is important as it simulates malignancy. Lactating adenoma is a benign tumor occurring usually during or shortly after pregnancy. Ductal papillomas of the breast are benign neoplasms that often arise in a major lactiferous duct near the nipple. In the malignant group, cancer en cuirasses were described as it is a rare presentation of breast cancer.

**Keywords:** Infiltrating ductal carcinoma, fibro adenoma, fibrocystic change.

## INTRODUCTION

Breast lesions are a common heterogeneous group of disorders ranging from self limiting inflammatory lesions to life threatening invasive cancers [1]. Breast diseases are showing a rising trend worldwide [2]. This may be due to increasing public awareness of breast cancer which is presently the most common female malignancy worldwide [3]. Breast diseases are common in women because estrogen cyclically stimulates breast development during their reproductive life, while in men the breast remains largely poorly developed providing formidable anti-neoplastic resistance [4]. Nevertheless benign breast diseases are most common cause of breast problems [5]. Benign breast disease is a neglected entity despite the fact that it constitutes the majority of breast problems. Breast cancer has taken precedence over benign breast disease since it is more fearsome although the number of females with benign breast disease is substantial [6]. The main purpose of this study is to analyse the spectrum of breast lesions in a tertiary care hospital.

## MATERIALS & METHODS

This study was done retrospectively in the Department of Pathology, SKIMS Medical College, Bemina over a period of three years from 31<sup>st</sup> January 2012 to 31<sup>st</sup> January 2009. Clinical features and details

of the cases were obtained from medical records section. Due consent was taken from the ethical committee. The samples were processed by standard procedures using 10% buffered formalin and paraffin technique and stained by Hematoxylin and Eosin [7].

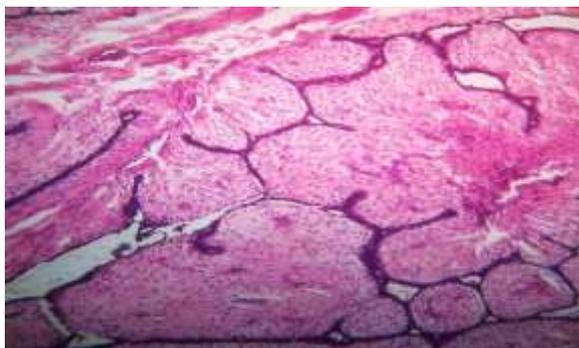
## RESULTS

**Table 1: showing distribution of various lesions in breast**

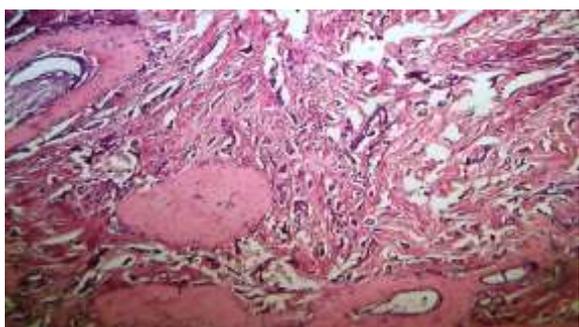
<b>Benign group (n=56)</b>		
Fibroadenoma	40	55.55
Fibrocystic disease	8	11.11
Lactating adenoma	2	2.77
Abscess	2	2.77
Duct Ectasia	2	2.77
Intraductal Papilloma	1	1.38
Galactocele	1	1.38
<b>Malignant group (n=16)</b>		
Infiltrating ductal carcinoma	14	19.44
Comedocarcinoma	1	1.38
Cancer En Cuirasses	1	1.38

A total of 72 cases were studied over a period of 3 years. Of the 72 cases, benign lesions constituted 77.77% of cases where as malignant lesions were 22.22%. The age ranged between 15-70 years. The

commonest presenting symptom was lump in both benign and malignant groups. Table 1 shows different histopathological lesions in benign and malignant groups. In the benign group, fibroadenoma was the most common lesion encountered in 71.43% of cases (fig. 1). In the malignant group, infiltrating duct carcinoma was the commonest lesion seen in 87.5% (fig. 2).



**Fig. 1: microphotograph showing fibroadenoma with compressed glands (40x)**



**Fig. 2: Shows infiltrating ductal carcinoma with extensive periductal elastosis (40x)**

## DISCUSSION

For correct diagnosis of breast diseases, background knowledge of general features of individual breast diseases like incidence, age distribution, symptoms and palpatory findings are very important. Benign conditions of breast are significantly more common than the malignant conditions in developing countries. The limited literature available suggests that benign breast disease is a common problem in the developing countries as well [8]. 72 cases were studied over a period of three years. The spectrum of breast lesions in female patients in our study showed 80.70% benign lesions of various etiology and 22.2% of malignant lesions. Malik [9] in his study of 1724 cases over a period of 20 years reported benign lesions in 72.97% and malignant lesions in 27.3% of cases. Similar results were obtained by Iyer *et al.* in 2000 [10] and Mayun *et al.* in 2008 [11]. In the present study, 55.07% of the benign lesions were noted in the patients below the age of 25 years. In the same age group, Malik [9] noted benign lesions in 51.19% of the cases and Bauer [12] in 95% of the cases. The incidence is higher in the study

of Bauer [12] as the age group selected for the study was between 12-22 years. In the malignant group, only one case was found below 25 years of age in our study. Similar results were noted by other authors [10, 11]. This shows that malignant lesions are very rare in adolescent females. Lump in the breast was the most common presenting symptom in both benign and malignant groups followed by pain in 10.14% in the benign group and 12.12% in the malignant group. Dixon *et al.* [13] conducted a study and found breast lump in 69%, breast pain in 50% and nipple discharge in 5% of cases. Griffith [14] studied frequency of presenting symptoms in benign breast diseases. He found common symptoms as lump in 33% of cases followed by pain and nipple discharge and noted that the patients may present with one or more of the symptoms. In the present study, fibroadenoma was the most common benign lesion constituting 71.42% followed by fibrocystic disease in 14.28% of the patients. The study by Malik [10] reported 55% of fibroadenoma. It has been seen that in women between adolescence and the mid 20's, the lobules and the stromal may respond to hormonal stimuli in an exaggerated fashion with the development of single and multiple fibroadenomas [15].

## CONCLUSION

The benign to malignant ratio was calculated as 3.5:1. Fibroadenoma was the most common lesion in the benign group. The unusual cases studied in benign group comprised of duct ectasia with adenosis, intraductal papilloma and lactating adenoma. In the malignant group, cancer en cuirasses were an interesting and uncommon case. The important findings from these cases were studied in detail. These features were useful in the management of patients as well as carried prognostic value. Identification of benign lesions like duct ectasia with adenosis is important as they mimic malignancy clinically. The treatment as well as prognosis in this condition differs. It is important to differentiate between benign and malignant papillary tumors of the breast because solitary papillomas are curable by local excision. However, increased risk for the development of invasive carcinoma applies to patients with multiple papillomas. Lactating adenoma is a benign breast tumor commonly presenting as painless breast mass occurring late in pregnancy or in the post-partum period. These come under adenomatous lesions.

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