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Research Article

A TWO YEAR STUDY OF BREAST LESIONS IN WOMEN AGED 18-70 YEAR GROUP IN GURUGRAM NCR

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A B S T R A C T

A prospective study of two years from July 2015 to July 2017 was undertaken todetermine the clinical features with radiological findings, cytological and histopathological spectrum of breast lesions with detailed study of uncommon cases. The objectives of the study were to estimate the frequency of benign and malignant breast lesions and to compare the results of study with those of other studies. Clinical features with radiological findings, Cytologicaland histopathological (in few cases wherever suspected malignancies) findings were studied. Out of the 140 cases, benign lesions constituted 90.71% and malignant 9.29%. The commonest benign tumor was fibroadenoma and the commonest malignancy was infiltrating ductal carcinoma (NOS). Uncommon cases were lactating adenoma, papilloma and duct ectasia and mucinous carcinoma of breast. Breast lesions can be of various types like inflammatory, benign and malignant lesions. Mostly benign lesions like fibroadenomas weremore common in young females while malignancies like infiltrating ductal carcinomas were more common in elderly age group. The study aim was to profile prevalence of various breast lesions and finding out age-related presentation of breast lesions. The study comprises analysis of 140 patients attending for FNA cytology at SGT medical college Budhera, Gurugram. Detailed clinicalhistory with ultrasonographic and mammographic findings were recorded and clinical examination was conducted. Fine needle aspiration cytology (FNAC) was done and smears were stained by standard Giemsa technique and were reported. Suspicious cases of malignancies were confirmed by histopathology examination. Out of the 140 cases analysed, 127(90.71%) cases were benign, 13 (9.29) cases were malignant. Among the benign breast disease fibroadenoma was mostcommon accounting for 61of total cases followed by 26 fibrocystic disease, breast abscess 9, mastitis 11, fat necrosis 3, epithelial hyperplasia 8, atypical hyperplasia 4, duct ectasia 2, duct papilloma1, and lactating adenoma 2. Among malignant lesions, 11were ductal cell carcinoma, 1 lobular carcinoma and 1 mucinous carcinoma of breast. There were 2 cases of ductal cell carcinoma in the 28-35 year age group and other cases were seen in mostly elderly patients. Ultrasonography is 89 percent sensitive and 78 percent specific in detecting abnormalities in breast lesions. Ultrasonography can effectively distinguish solid masses from cysts. Ultrasonography of fibroadenomas shows lobulated, isoechoic or hypoechoic, solid nodule with homogenous echo texture. Changes like increase in color flow signals in Doppler study suggests epithelial hyperplasia, atypia or carcinoma in a fibroadenoma. Microcalcifications on mammographic studies indicates towards malignancies. Early diagnosis will help in better management of the case, reduces anxiety of the patient in benign cases and reduces morbidity and mortality in malignant ones.

INTRODUCTION

Breast diseases are showing a rising trend worldwide [1]. This may be due to increasing public awareness of breastcancer which is presently the most common female malignancy worldwide [2]. Breast diseases are common in women because estrogen cyclically stimulates breast development during their reproductive life, Breast lesions are a common heterogeneous group of disorders ranging from inflammatory lesions to life threatening invasive cancers [3]. Breast cancer has taken precedence over benign breast disease [4]. Mortality and incidence is relatively lower in developing countries and other parts ofglobe in comparison to western population (Khan *et al*

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2003) [5]. BalkrishnaBYeole *et al* (2003) in an epidemiological study compared the breast cancer incidence ofvarious countries and found that incidence rates were very high in developed countries [6]. The main purpose of our study is to analyses the spectrum of breast lesions in a teachinghospital.

MATERIALS AND METHODS

This study was done in the Department of Pathology, SGT Medical College, Budhera, Gurugram over a period of two years. In the present prospective study we took total of 140 patients attended with breast symptomatology i.e breast lump, pain, lumpiness and discharge over a period of months during July 2015 to July 2017. All the cases of breast lesions in women were included in the study, youngest patient was of 18 year of age and oldest was of 70year. The findings of significant related history and clinical examination and other relevant investigations were recorded for aid in diagnosis. Fine needle aspirationcytology (FNAC) was done in patients with palpable lump, vague nodularity with pain, breast discharge and other suspiciouslesions. Suspected cases of malignancy were sent for histopathological examination. The cytology samples were processed by standard procedures using giemsa staining and pap staining and histopathology sections were processed by standard procedures using 10% buffered formalin and paraffin technique and stained by Hematoxylin and Eosin.

RESULTS

Table 1 Showing distribution of various lesions inbreast

CASES	NUMBER	Percentage (%)
Fibroadenoma	61	43.57
Fibrocystic disease	26	18.57
Mastitis	11	7.86
Breast abscess	9	6.43
Fatnecrosis	3	2.14
Duct ectasia	2	1.43
Intraductal papilloma	1	0.07
Lactating adenoma	2	1.43
Epithelial hyperplasia	8	5.72
Atypical hyperplasia	4	2.86
Infiltrating ductal carcinoma	11	7.86
Lobular carcinoma	1	0.07
Mucinous carcinoma	1	0.07

Table 2 Age distribution pattern of variuos breast diseases

CASES	Age Group (In Years)
Fibroadenoma	18-40
Fibrocystic disease	25-40
Mastitis	20-40
Breast abscess	20-45
Fat necrosis	45 -70
Duct ectasia	30-35
Epithelial hyperplasia	35- 60
Atypical hyperplasia	35-70
Intraductal papilloma	35-40
Lactating adenoma	35-40
Infiltrating ductal carcinoma	28-70
Lobular carcinoma	45-70
Mucinous carcinoma	60-65

DISCUSSION

Benign conditions of breast are significantly more common than the malignant conditions in developing countries [7]. For correct diagnosis of breast diseases, background knowledge of general features of individual breast diseases like incidence, age distribution, symptoms and palpatory findings, radiological findings with microscopic examination findings are very important. 140 cases were studied over a period of two years, the spectrum of breast lesions in female patients in our study showed 90.71% benign lesions including inflammatory lesions and 9.29% of malignant lesions. Out of 140 cases, 127(90.71%) were benign lesions and 13 (9.29%) were malignant lesions, mostly lesions were found in right breast in upper outer quadrant. Kelsay *et al* (1993) reported that breast cancer is 100 times more common in women than in men [8]. Adesunkanmi *et al* (2001) in Nigeria where 87.2% patients had benign breast lumps.15.5% cases were malignant[9], in a study of Pradhan *et al* (2008) in Nepal, Most common benign lesion was fibroadenoma77.02% (57% of all lesions) [10]. Out of 20 malignant cases, 19 (95%) were ductal cell carcinoma [11]. Sangma *et al* noted 48% lesions in right breast and 40% in left breast, Mudholkar *et al* noted, the upper outer quadrant was most commonly involved (48%) with average size of fibroadenoma of 3.7cm.[12,13] We also noted the upper outer quadrant as the commonest site with average size of 4 cm.

Hartmann *et al* stated, histologic features, the age at biopsy, and the degree of family history are the major determinants of the risk of breast cancer after the diagnosis of benign breast lesions[14].

CONCLUSION

Fibroadenoma was the most common benign lesion in young females and infiltrating ductal carcinoma (NOS) was most common malignant lesion in elder patientswith most common site was upper outer quadrant of right breast thein Present study. The unusual cases studied comprised of intraductal papilloma and lactating adenoma, and mucinous carcinoma. Ultrasonography has a sensitivity of 89 percent and a specificity of 78 percent in detecting abnormalities in symptomatic women. Ultrasonography can effectively distinguish solid masses from cysts. Microcalcifications on mammographic studies indicates malignancies [15] correlated with clinical data, mammographic and ultrasonographic findings, the cytology and histopathological examination led to early diagnosis of a breast lesion.

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