

Study on Incidence of Benign Breast Diseases and Carcinomabreast in Breast Lump Cases of 200 Patients in a Tertiary Care Center in Southern Kerala

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Abstract

Introduction: Breast cancer accounts for about one third of female cancer. Of all lesions, benign breast diseases have been found to be commonest. The aim of study was to analyze the incidence of breast diseases over the period of 3 years and to study the spectrum of diseases and age distribution.

Methods: Retrospective cross-sectional study of breast lump cases at general surgery department of Travancore medical college over a period of 3 years.

Result: Of the total 200 cases up looked into, 27 out of 200 cases were found to be malignant. Fibrocystic disease was the commonest (43%), followed by fibroadenoma (34.5%), 67 had lumps in right breast, 87 in the left breast and 46 patients had lump in both breasts.

Conclusion: From the study we found that, most of the breast lesions are benign and there is increase in the number of cases each year. Some of the benign lesions may remain undetected and lead to malignant change. So early detection of breast carcinoma and public awareness is crucial to save the patient from morbidity and mortality.

Keyword: Breast Diseases; Carcinomabreast; Fibrocystic disease.

Introduction

Breast cancer accounts for one-third of female cancers and approximately one-fourth of all malignancies.¹ Breasts are susceptible to numerous benign and malignant conditions, varying from an inflammatory lesion to malignancy. Pain and a Palpable lump are the most common presentations. Some lesions are common in younger age group while others are common in elderly age group. Early detection and accurate diagnosis of the condition is crucial as it alleviates anxiety of patients as well save them from morbidity and mortality.

Over the years, breast lesions have gained global attention due to rising number of malignancies and due to ardent spread of awareness among women. Numerous studies have been conducted worldwide on spectrum of breast lesions, diagnostic methods and treatment protocols. Of all the lesions, benign breast disease has been found to be the commonest. Benign lesions range from developmental disorders, inflammatory lesions and proliferative lesions. Malignant lesions include ductal carcinoma, lobular carcinoma, colloid carcinoma, and medullary carcinoma.

In Asia, the incidence of breast cancer is increasing and may occur in younger age groups. About 25% of breast cancer occurs in younger patients in developing Asian countries as compared to Western countries.² Treatment may range from oral medications to surgical procedure depending on the type of lesion viz. neoplastic vs non neoplastic

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or benign vs malignant, few of them even resolve without treatment. The aim of the present study is to analyze the incidence of breast disease over a period 3 years and also to study the spectrum of the lesions and age distribution.

Materials and Methods

This is a retrospective cross-sectional study of Breast lump cases during 2016-2018 conducted at the Department of General Surgery, Travancore Medical College. All the findings were recorded in the database. From the patient’s clinical data and histopathological reports, the age, sex, nature of the specimen, hospital numbers, laboratory numbers and histopathological diagnosis was taken. Male patients were excluded from the study.

Statistical Analysis

Microsoft excel was used to generatetables.

Results

1. A Total of 200 cases were looked into over a

period of 3 years. The age of the cases ranged from 14 to 74. Fig. 1 shows that the mean age of presentation was 37.36 with a standard deviation of 12.591.

Table 1: The mean age of presentation for benign lesions was 35.62 with a standard deviation of 12.140 and that of malignant lesion was 48.44 with a standard deviation of 9.5.

Age Group	Type of Neoplasm	Numbers	Percentage
14-24	Benign	38	19%
	Malignant	0	
25-34	Benign	45	23%
	Malignant	1	
35-44	Benign	48	28%
	Malignant	8	
45-54	Benign	28	19.5%
	Malignant	11	
55-64	Benign	9	7%
	Malignant	5	
65-74	Benign	4	3%
	Malignant	2	

The study population were divided into 6 age

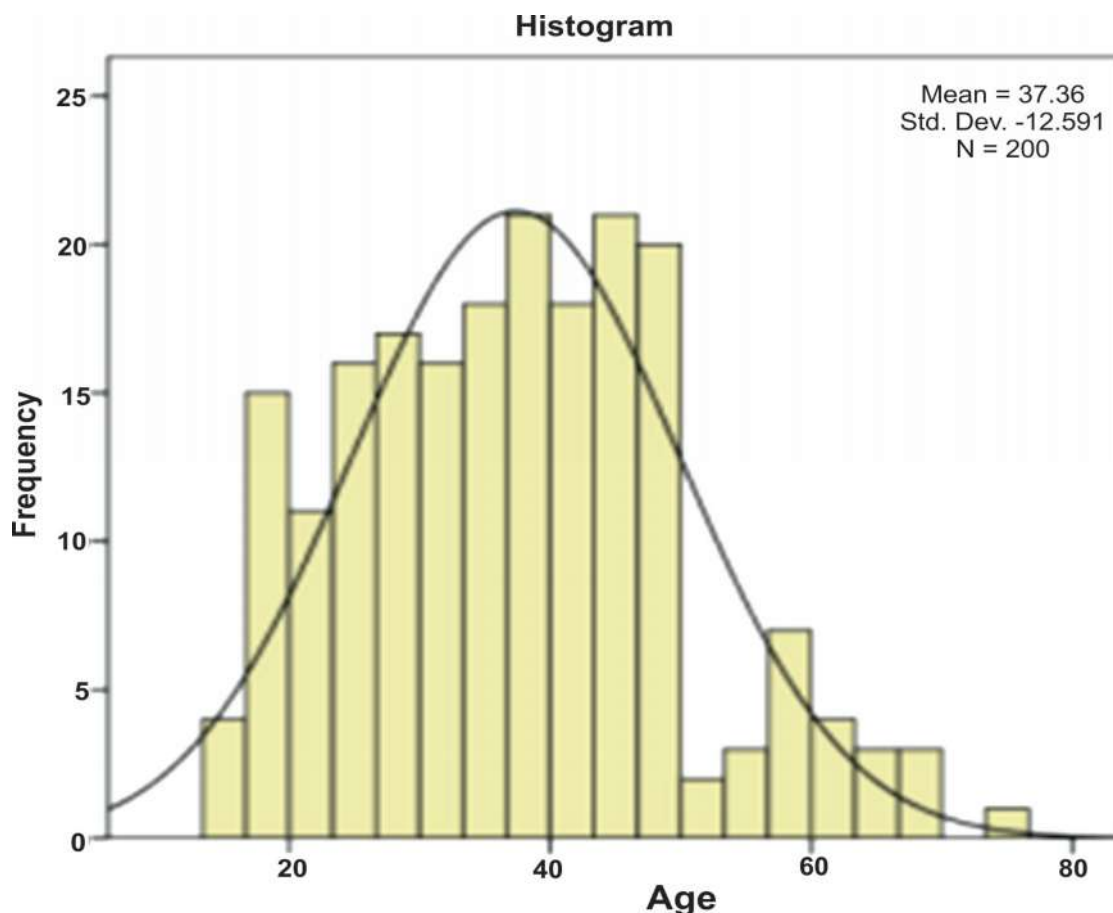


Fig. 1: Age wise distribution.

groups as shown in Table 1. Maximum number of cases belonged to age group of 35-44 (28%). Age group of 45-54 showed highest number of malignant cases (11 out of 27 cases, around 40.7%).

2. There has been an increase in number of cases in each year. Out of 200 cases studied over 3 years, maximum number of cases were in the year 2018 (72) and minimum in 2016 (59) (Figure 2).

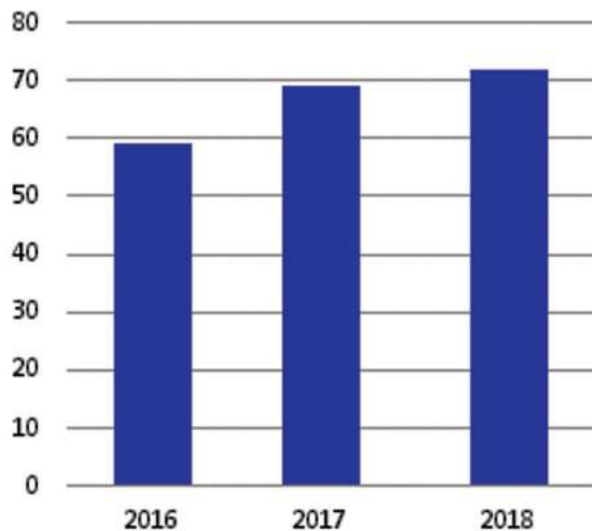


Fig. 2: No of Cases in Each Year.

3. 27 out of 200 cases were found to be malignant (13.5%), thus benign lesions occupying a major share (86.5%).

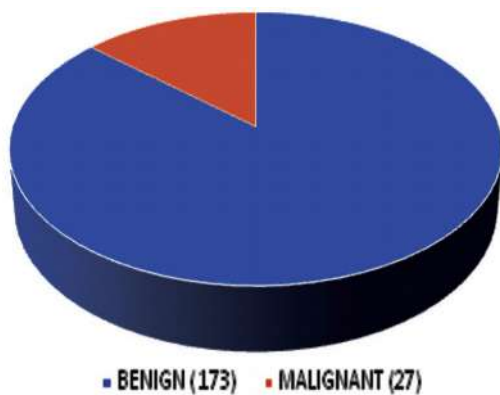


Fig. 3: Type of Neoplasm.

4. Among 200 cases studied, 27 breast lumps were found to be malignant (14%) and rest of them benign fibrocystic disease (44%) was the most common lesion among the study population followed by fibroadenoma (35%).9% of the cases comprised of other lesions like granulomatous mastitis, galactocoele, breast abscess etc. (figure 4).

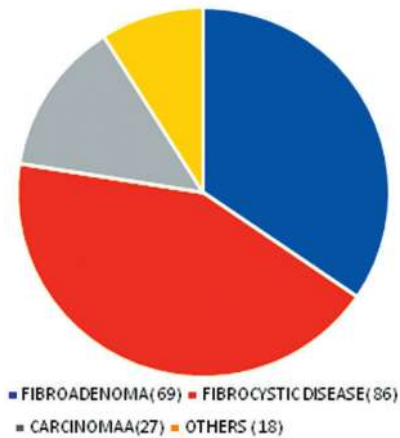


Fig. 4: Histopathological Diagnosis.

5. Out of 200 cases 67 had lumps in right breast (33.5%),87patients in left breast (43.5%) and 46 patients had lump in both breasts (23%)(Figure 5).

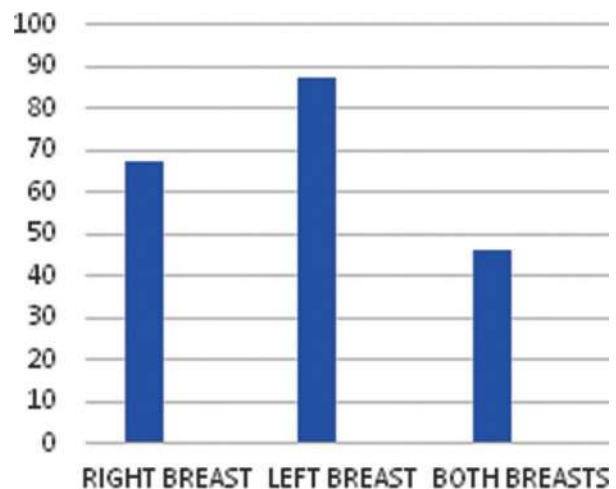


Fig. 5: Site of Lesion.

Discussion

Breast is an important feature of female anatomy and representing femininity.³ They are ectodermally derived modified sweat glands. They are composed of specialized epithelium and stroma. The human breast consists of six to 10 major duct systems. The overlying skin of the breast is lined by keratinizing squamous epithelium that dips into the orifices of the nipple and then abruptly changes to a double-layered cuboidal epithelium that continues to line the ducts. The larger ducts further branch and eventually lead to the terminal duct lobular unit. Two cell types line the ducts and lobules. They are the luminal epithelial cells that overlay the epithelial cell.⁴

The physiological changes occur in three stages:

1. Growth and involution related to age.
2. Changes associated with menstrual cycle.
3. Changes due to pregnancy and lactation.

The benign spectrum of breast lesions includes fibroadenoma, phylloides tumor, mastitis and breast abscess and malignant spectrum includes ductal carcinoma, lobular carcinoma, mucinous carcinoma, medullary carcinoma, papillary carcinoma and metaplastic carcinoma.

In our study of 200 cases 86.5% comprised benign breast lesions while 13.5% of cases was constituted by malignant cases. A percentage of 10 and 21 have been observed in studies conducted in western countries and Africa, respectively.^{5,6} The most common lesion was found to be fibrocystic disease (43%). Fibrocystic disease is also known as fibroadenosis and it is a condition where the breasts are painful, lumpy, or dough. Early menarche, late or no pregnancies are important risk factors. It is not an actual disease but represents normal breast changes and needs to be distinguished from the malignant lesion.⁷ Next commonly occurring lesion in our study was Fibroadenoma (34.5%). It is usually the commonest among benign breast lesions.^{8,9}

In present study, maximum patients were seen in age group 35-44 years (56) followed by 25-34 years (46). Ellis et al (5) found that there were 254 breast lesions, histologically diagnosed in 3-year review period. The overall mean age of patients with breast lesion was 25.18, SD \pm 11.73 with a wide age range of 12-74 years. Age group of 45-54 showed maximum number of malignant cases followed by 35-44. The mean age of presentation of malignant lesion was found to be 48.44.

Conclusion

From the study we could conclude that most common breast lesions are benign and there was an increase in number of cases in each year. The peak age of malignancy was around 4th decade. As we could see the peak age of occurrence of

breast lesions were around 3rd decade, it clearly emphasizes the need for breast cancer screening to be initiated in all women of age as early as possible for early diagnosis of breast cancer. Breast cancer screening and awareness programs must be implemented globally and the women should be motivated to report to the doctor at the earliest for prompt diagnosis and timely interventions so as to decrease the morbidity and mortality associated with breast cancer.

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