



A HISTOPATHOLOGICAL STUDY OF BREAST LESIONS: OUR EXPERIENCE

Pathology

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ABSTRACT

Objective: Many studies have been done and published on spectrum of breast lesions. There is a wide variation in the spectrum of breast diseases and the epidemiology of breast carcinoma in various countries or ethnic groups. The present study was done to know the spectrum of breast lesions in Sree Narayana Institute of Medical Sciences, Chalakka, North Paravur.

Materials and method: It is a retrospective study performed at Sree Narayana Institute of Medical Sciences, Chalakka, North Paravur over a period of 3 years from January 2014 to January 2017. During the period, a total of 50 breast specimens were received in the department of pathology. Histopathological examination of specimens was done to know the spectrum of breast lesions.

Results: All the patients were female. Age of the patients ranges from 10 to 80 years with the mean age of 34.8 years. Out of 50 patients, incidence of benign breast disease (76%) was found to be more than malignant disease (16%). The commonest benign breast disease was Fibroadenoma (36%) followed by fibrocystic disease (12%). Invasive ductal carcinoma was commonest malignant lesion we studied (12%). Mastitis with abscess was commonest among inflammatory lesions (4%).

Conclusion: Results of the present study were comparable with many other similar studies done in the past however we suggest the formation of larger series to achieve better result about the spectrum and burden of breast disease thereby benefitting public health.

KEYWORDS

Histopathology, Fibroadenoma, Breast lump

Introduction

Breast diseases are showing a rising trend worldwide. A number of studies have been done in order to know the magnitude of the problem (1, 2).

There is a wide variation in the spectrum of breast diseases and the epidemiology of breast carcinoma in various countries or ethnic groups. In India, breast cancer is the second most common malignancy in females after cervical cancer and is detected in 20/1,00,000 women. The problem of breast lumps is rising in young females and it is essential to identify patients with benign proliferative lesions of the breast. Transition from normal to cancer begins by proliferation, then progresses to atypia & finally arrives at neoplasia (3). A benign proliferative lesion of the breast is an important risk factor for subsequent transformation to malignancy. Karyotype & molecular alteration in benign proliferative breast lesions parallel those of breast carcinoma (4). So, if Proliferative lesions recognized in the young population at an early stage along with a close follow up & careful watch then it would be possible to abort the development of invasive cancer (5).

Till now, many studies have been done and published on the histopathology of breast lesions. The present study was done to know the histopathological spectrum of breast lesions at Sree Narayana Institute of Medical Sciences, Chalakka, North Paravur.

Material and Methods:

It is a retrospective study performed at Sree Narayana Institute of Medical Sciences, Chalakka, North Paravur over a period of 3 years from January 2014 to January 2017. During the period, a total of 50 breast specimens were received in the department of pathology. Out of 50 specimens, 8 were mastectomy, 23 were lumpectomy and rests 19 were core biopsies and tissue blocks. The standard tissue processing protocols were followed and 5µ thick sections were cut and stained with hematoxylin and eosin for morphological analysis.

In each case, the clinicopathological data was collected from indoor papers and from biopsy requisition forms. The gross appearance of specimens and the histopathological reports were recorded as per proforma. The histological typing of lesions was done according to WHO classification.

Results:

All the patients were female. Age of the patients ranges from 10 to 80 years with the mean age of 34.8 years. Benign lesions were mostly seen in second and third decade of life while malignancy seen after fifth decade. Age wise distribution of all the diseases we studied is shown in

table.1.

Out of 50 patients, incidence of benign breast disease (76%) was found to be more than malignant disease (16%). The commonest benign breast disease was Fibroadenoma (18%) followed by fibrocystic disease (12%). Other benign disease we studied are shown in table.2
Invasive ductal carcinoma was commonest malignant lesion we studied (12%). Table.3

Inflammatory lesions were found in 4 patients (8%). Table.4

Discussion:

The mean age in our study is 34.8 years which is much lower compared to that in the western literature where the mean age is around 54 years.

In present study, the highest incidences of breast lesions were in the age group of 31 – 40 yrs. The maximum numbers of benign breast lesions were in the age group of 21-40years and maximum numbers of malignant lesions were seen in the age group above 50 years. Our study coincided with the studies of Mahua Choudhary et al (1985), and Reeni Malik et al (2003) (6).

Most of the malignant lesions cases are found after the 40 years of age. The present study reported malignant lesions after 5th decade of life which was comparable to the result obtained in the study by Malik R et al (2003) (6), Mudholkar et al (2012) (7) and Ibrahim et al (2015) (8).

In the present study, a higher incidence of benign breast lesions (76%) was noted than malignant lesions (16%). The findings are comparable with that of Oluwayle and Freeman (9).

Fibroadenoma had the highest incidence in our study among the non-malignant breast lesions, which is comparable with the study of Saltzstein and Pallock (10).

In the current study, invasive ductal carcinoma is the most common malignant lesion which is similar to the observations of Kumar (11).

We reported 8% cases of inflammatory lesions, which is comparable to the study done by Rathi et al (2015) (12), and is slightly less than other studies done by other authors.

Conclusion:

In the present study, benign breast diseases are found to be more common than malignant. The most common benign lesion is fibroadenoma of breast (36%) and most common malignancy is invasive ductal carcinoma (12%). Inflammatory lesions were only 8%

of total cases in which mastitis with abscess was most common lesion (4%).

Peak incidence of benign lesion is in the age group 31-40 years while peak incidence of malignancy is in age group 51-60 years.

The results of our study were compared with many other studies similarly conducted by different authors and were found to be comparable with the results of other studies however we suggest the formation of larger series through collection of such studies to achieve better results, thereby benefitting public health.

Conflict of interest:

No conflicts of interest exist for these authors. No relevant financial relationship exists between the authors and procedures or products used in this manuscript.

Table.1 Age wise distribution of the inflammatory, benign and malignant breast lesions

S. No.	Age Group	No. of cases of Benign lesions	No. of cases of Malignant lesions	No. of cases of Inflammatory lesions
1	<10	0 (0%)	0 (0%)	0 (0%)
2	11-20	1 (2%)	0 (0%)	0 (0%)
3	21-30	11 (22%)	0 (0%)	2 (4%)
4	31-40	14 (28%)	0 (0%)	1 (2%)
5	41-50	8 (16%)	0 (0%)	1 (2%)
6	51-60	4 (8%)	4 (8%)	0 (0%)
7	61-70	0 (0%)	3 (6%)	0 (0%)
8	71-80	0 (0%)	1 (2%)	0 (0%)
9	Total	38 (76%)	8 (16%)	4 (8%)

Table.2 Histopathological type and frequency of occurrence of Benign breast lesions.

S. No.	Type	Number	Percentage
1.	Fibroadenoma	18	36%
2.	Fibrocystic disease	12	24%
3.	Sclerosing Adenosis	3	6%
4.	Fibroadenosis	3	6%
5.	Tubular adenoma	2	4%
6.	Total	38	76%

Table.3 Histopathological type and frequency of occurrence of Malignant breast lesions.

S.No.	Type	Number	Percentage
1.	Invasive ductal carcinoma	6	12%
2.	Invasive lobular carcinoma	1	2%
3.	Carcinoma in-situ (ductal)	1	2%
4.	Total	8	16%

Table.4 Histopathological type and frequency of occurrence of Inflammatory breast lesions.

S.No.	Type	Number	Percentage
1.	Non-specific Mastitis with abscess	2	4%
2.	Granulomatous mastitis	1	2%
3.	Duct ectasia	1	2%
4.	Total	4	8%

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