



## A Clinicopathological Evaluation of Breast Carcinoma in a Rural Tertiary Care Hospital

Authors

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### Abstract

**Background:** Breast cancer is the second most common cancer in Indian women. The incidence of Breast cancer is slowly increasing in India and has poor prognosis if detected in late stages. But, its incidence can be decreased if its detection is made at earliest stages.

**Objective:** To assess the clinico-pathological aspect of breast carcinoma in a rural Tertiary care hospital.

**Methods:** A total of 28 cases diagnosed as malignancy of breast in Department of Pathology, Rajah Muthiah medical college were taken for the study.

**Results:** Out of 27 female cases, the most common age group at which breast carcinoma was diagnosed was around 50-59 years. Most of the cases were post menopausal age group. One case was male, whose age was 66 years. The most common histological type was found to be Infiltrating Ductal carcinoma-Not Otherwise specified.

**Keywords:** Breast Carcinoma, Age incidence, Menopausal status, Histological type.

### Introduction

Breast cancer is the most commonly diagnosed cancer and the leading cause of cancer death, followed by colorectal and lung cancer for incidence, and vice versa for mortality; cervical cancer ranks fourth for both incidence and mortality.<sup>1</sup> National Cancer Registry Programme suggests that 25% of the total cancer cases among Indian women constitute breast cancer.<sup>2</sup> Increasing incidence, younger age at diagnosis and presentation at advanced stage are thought to translate into higher mortality observed compared

to other developed nations.<sup>3</sup> It is also estimated that of all the reported cases of breast cancer, 50-70% of cases are advanced at presentation in India<sup>4</sup>. If left untreated, the mean survival is about 3 years after clinical presentation and 5 year survival rate is less than 20%.<sup>5</sup>

The present study was undertaken to evaluate the clinical presentation, risk factors and the pathological features of breast cancer patients diagnosed and managed at our tertiary care hospital.

### Materials and Methods

The present study is a prospective study done for a period of 2 years from August 2018 to September 2020 conducted in Department of Pathology, Rajah Muthiah Medical College, Chidambaram. All cases diagnosed as benign cases of breast was excluded from the study. A total of 28 cases diagnosed as malignancy of breast in Department of Pathology, Rajah Muthiah medical college were taken for the study.

**Table 1:** Age incidence

Age in years	No. of cases	Percentage
30-39	3	10.7%
40-49	6	21.4%
50-59	12	42.8%
60-69	5	17.9%
70-79	2	7.2%

### Menopausal status

Out of 28 cases, 18 cases (64.3%) comes under post menopausal age group and 9 cases (35.7%)

### Results

In this study, a total of 28 cases were taken. Out of these 28 cases, majority of the cases were females 27(96.4%) and one case was male (3.6%). Maximum number of malignancies were encountered in the age group of 50-59 years, 12 cases (42.8%). The youngest age of malignancy diagnosed was at 30 years and oldest was 78 years old.

under pre-menopausal age group. One case was male.

**Table 2:** Clinical Presentation

Presentation	No. of cases	Percentage
Painless lump	14	50%
Painful lump	13	46.4%
Nipple discharge	1	3.6%

Table 2 shows the most common presentation was painless lump which is seen in maximum number of cases 50%, followed by painful lump, 13 cases

(46.4%). One case presented with nipple discharge. One case of male in this study were also presented with painless lump.

**Table 3:** Distribution of cases according to site and quadrant

Quadrant	Right	Left
Upper Outer quadrant	8	5
Upper inner quadrant	5	3
Lower outer quadrant	2	4
Lower inner quadrant	1	

Table 3 shows that, out of 28 cases studied, right side of breast was found to be commonly involved comprising of 16 cases (57%) and left breast was involved in 12 cases (43%). Upper outer quadrant

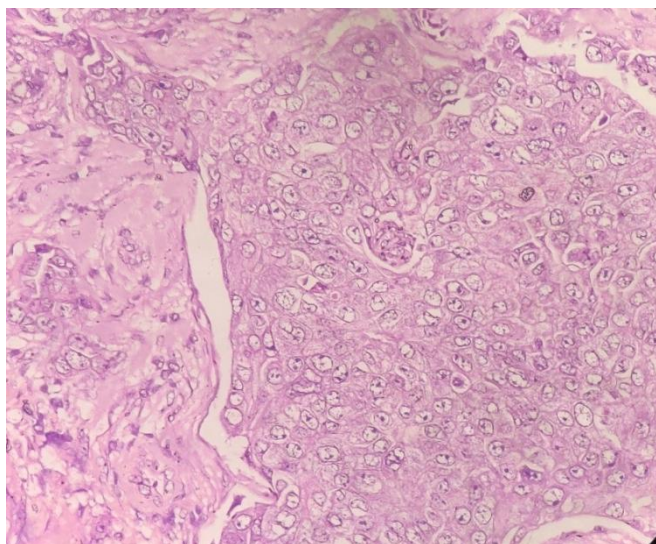
was more commonly involved contributing upto 13 cases (46.4%) followed by upper inner quadrant (29%).

**Table 4:** Histomorphological types

Type	No. of cases	Percentage
Infiltrating ductal carcinoma - NOS	26	92.8 %
Infiltrating ductal carcinoma with medullary features	1	3.6%
Mucinous carcinoma	1	3.6%

Table 4 shows that most of the cases were diagnosed as Infiltrating ductal carcinoma – NOS contributing up to 92.8% of cases, followed by one case of infiltrating ductal carcinoma with medullary features and one case of mucinous carcinoma.

Other clinicopathological parameters were also assessed in the present study. Out of 28 cases, most cases, 15 cases (54%) had tumor size of >5cm and 7 cases within 2 to 5 cm. Out of these 28 cases, 14 cases were of Grade 2(50%), followed by 12(42.8%) cases with Grade I differentiation. One case was found to be of Grade III (3.6%). Lymph node metastasis was seen in 13cases (46.4%) and no metastasis was seen in 15 cases (53.6%).

**Fig-1:** Infiltrating Ductal Carinoma- NOS, High Power

## Discussion

Breast carcinoma is a clinically and pathologically heterogeneous disease.<sup>6</sup> In our present one year study, we analyze certain datas regarding to the basic clinical and pathological profile such as age, menopausal status, clinical presentation and

histological types, size, grade and lymphnode status.

In our study, the maximum number of cases were seen between the age group of 50- 59 years constituting to 42.8% which is in concurrence with Sree ND et al<sup>7</sup>, where the maximum age incidence was seen at 50-59 years. Saxena et al<sup>8</sup> reported the commonest age of incidence was 45–54 years (31.8%). In our study, most of the cases(64.3%) were seen in the post menopausal age group and painless lump(50%)was found to be the most common clinical presentation. In a study conducted by Sree ND et al<sup>7</sup>, 51.85% of cases occurred in the post menopausal age group. Singh et al<sup>9</sup> reported that the most common presentation was painless mass in the breast (60.78%) followed by painful mass in the breast.

Upper outer quadrant was most commonly involved(46.4%) in our present study followed by upper inner quadrant (29%) which is in concurrence with the study conducted by Alijarrah et al<sup>10</sup> and Sulhyan et al<sup>11</sup> where the most common quadrant involved was upper outer quadrant followed by upper inner quadrant. In our present study, right side of the breast was more commonly involved in majority of cases contributing upto 57% than the left breast (43%), whereas in a study conducted by Emmanuel<sup>12</sup> et al and Amer et al<sup>13</sup>, left breast was more commonly involved than the right constituting up to 50.6% and 50.9% respectively.

The present study shows that the most common histological type was Infiltrating ductal carcinoma-NOS (92.8%) which is similar to Emmanuel et al<sup>12</sup>, whose study also showed that Infiltrating ductal carcinoma – NOS was the most common type identified.

The tumor size was about >5cm in most of the cases, (15/28) which was about 54% of all the

cases. This present study is comparatively more than the study conducted by Onitilo et al<sup>14</sup>, where there are more number of the cases in tumor size  $\leq 2$  cm (71.4%) and 23.1% cases with tumor size of 2-5 cm and 4.7% cases with tumor size  $>5$ cm . Whereas in the other study conducted by Patil et al, majority of cases have tumor size of 2 to 5 cm (42%).

In our present study, majority of tumors were of grade II, 14 cases out of 28 (50%) which is similar to the study conducted by onitilo et al<sup>14</sup> where most of the cases (435/1082) were of grade II. Also, from the study conducted by Ahmed Z et al<sup>15</sup>, out of the 120 cases, 5 (4.17) were grade 1, 91 (75.83) were grade 2, and 24 (20%) were grade 3, similar to our study.

Lymphnode metastasis was seen in 13 cases(46.4%) and 15 cases(53.6%) showed lymph node with features of Reactive hyperplasia, which is similar to the study conducted by Ayadi L et al<sup>16</sup> who documented lymphnode positivity in (65/155), 41.9% of the cases and negative metastasis in (90/155), 58.1% of the cases. In a study conducted by Ahmed Z et al<sup>15</sup> lymph node metastasis is seen in majority of cases (74.77%).

### Conclusion

In conclusion, Breast carcinoma was more common in the 6<sup>th</sup> decade, mostly among post menopausal women. The most common histological type of breast carcinoma was Infiltrating ductal carcinoma- Not otherwise specified.

Most of the breast malignancies present only in the later years of age, due to the lack of awareness regarding the breast lesions. The types and pattern of breast lesions provide adequate knowledge regarding the clinicopathological profile for appropriate treatment. All the clinical cases of breast lump should be corelated histologically for a confirmatory diagnosis and for proper treatment. Effective screening measures and early diagnosis should be done to reduce the morbidity and mortality of the disease.

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