

## Evaluation of Clinico-Pathological Study of Breast Cancer in Rural Population

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**Abstract:** Background and Objectives : Breast cancer is the second most common cancer in the Indian female population . As per our hospital data, breast cancer is also to be the second leading malignancy in women. Hence, we undertook this study to evaluate the clinical profile and histological types of breast cancer in our patients. Majority of our patients are from rural areas.

**Materials and Methods:** The study was undertaken for a period of four years from January 2012 to December 2015 comprising of one hundred female patients who were treated in the department of Surgery at Agartala Government Medical College & G B P Hospital, Agartala . Diagnosis were made by a combination of clinical assessment , radiological imaging and tissue biopsy the so- called triple assessment .

**Results:** The commonest presentation of cancer of breast was breast lump . The commonest age group of breast cancer ranged from 41 years to 60 years . The most common site of tumor was the upper outer quadrant of breast and infiltrating ductal carcinoma (IDC) was the most common histologic type of breast cancer in our society .

**Conclusion:** The incidence of breast cancer in India is increasing and basic education and awareness of the women's health , self breast examination, and clinical breast examination may help increasing awareness and help to identify breast cancer at early stage in developing countries.

**Keywords:** Breast cancer , clinical profile , histopathology.

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### I. Introduction

Breast cancer is the most common form of cancer in women and listed as second leading cause of cancer death among women (1). Breast cancer contributes for 5-8% of all cancer in India (2) , and there is a rising trend in its incidence (3). Every year 75,000 new cases of breast cancer are diagnosed in Indian women (4) . The probability of developing breast cancer during lifetime in Indian women is 1 in 22 as compared to 1 in 8 women in the United States and other developed countries (5) . Genetic differences , the stage of disease at the time of diagnosis , availability of proper and appropriate care are some of the factors which explain the differences in incidence , clinical profile and outcome of the patients (6) . The present study describes the clinical profile and histopathology of breast cancer in rural population .

### II. Materials and Methods

This study was conducted in the department of surgery at Agartala government medical college & G B P hospital , Agartala from January 2012 to December 2015 .

The one hundred women were treated for breast cancer were included in this study

**Inclusion Criteria:** Female patients with diagnosed breast cancer were included in this study .

**Exclusion Criteria:** Women with history breast cancer who had been operated earlier for breast cancer and on preoperative chemotherapy or radiotherapy and recurrence cases and male breast cancer were excluded in this study . A detailed history of all one hundred cases was taken according to a detailed proforma . Diagnosis was made by a combination of clinical assessment , radiological imaging and tissue sample taken for cytological or histological analysis , the so-called triple assessment .

### III. Results

This study included a total of one hundred cases that were studied prospectively in the department of surgery at Agartala government medical college & G B P hospital , Agartala . The age of the patients of breast cancer ranged from 29 years to 64 years . The majority of the patients are in the age group of 41 years to 60 years (Table 1). All of the patients presented was that of a lump , with slightly left side dominance (Table 2).

Upper outer quadrant of the breast was the site of lump in more than half of patients (Table 3) . Most of the patients presented in stage II / III (Table4). Infiltrating ductal carcinoma was the most common histological type (85%) followed by infiltrating lobular carcinoma (8%) (Table 5). The most common treatment offered was modified radical mastectomy with referral to oncologist at regional cancer centre ( R C C ) , Agartala for adjuvant chemotherapy and radiotherapy . Very few patients came for follow-up i.e about 10% of cases . Two patients that come for follow-up had recurrence . The common site of recurrence was in the operated breast .

**Table 1:** Age- wise distribution of breast cancer.

Diagnosis	Age (Year)	Age (year)	Age (year)	Age (year)	Age (year)
	21-30	31-40	41-50	51-60	61-70
Carcinoma breast	1	4	48	46	1
Percentage	1%	4%	48%	46%	1%

**Table2:** Involvement of breast carcinoma .

Site	Number of patients	Percentage
Right breast	48	48%
Left breast	50	50%
Both breast	2	2%
Total	100	100%

**Table 3:** Breast cancer patients in relation to location of lump.

Quadrant	Number of patients	Percentage
Upper outer	63	63%
Lower outer	12	12%
Upper inner	10	10%
Lower inner	3	3%
Central	12	12%
Total	100	100%

**Table 4:** Clinical stage at presentation of patients in present series.

	Number of patients	Percentage
Stage I	5	5%
Stage II	42	42%
Stage IIIA & IIIB	50	50%
Stage IV	3	3%
Total	100	100%

**Table 5 :** Histological types of breast cancer encountered in present series

	Number of patients	Percentage
Infiltrating ductal carcinoma	85	85%
Infiltrating lobular carcinoma	8	8%
Medullary carcinoma	4	4%
Mucinous carcinoma	2	2%
Pageet's disease	1	1%
Total	100	100%

#### IV. Discussion

Breast cancer is the most frequent cancer in female , both in developed and developing regions and ranks second overall only to lung cancer (7) . The present study has provided information about the clinico-pathological aspects of the breast cancer in patients from this region . Breast cancer can occur at any age , but rare in patients younger than 25 years and over 80 years ; the peak incidence is between 45 years and 60 years (8). The majority of the patients in this study are in the age group of 41 years to 60 years . All patients in this study presented with a lump in the breast with slightly left side dominance . Breast cancer most frequently involves the upper outer quadrant (60%) followed by 12% in both central zone and upper inner quadrant , 10% In lower outer quadrant, 6% in lower inner quadrant (9). The data regarding the location of lump in the breast cancer patients from our study is in line with that reported by R K Gange et al.(10). They studied 108 cases and observed that the location of the lump was in upper outer quadrant in 48% cases , lower outer quadrant in 10% cases , lower inner quadrant in 12% cases and central quadrant in 12% cases . Infiltrating ductal carcinoma (85%) was the most common histological type in the present study . Similar observation have been reported by Haque R et al.(11) with 75% cases being infiltrating ductal carcinoma in their study and Gupta JC et al.(12) with 91.1% cases of infiltrating ductal carcinoma in their study. Baptist SJ et al.(13) reported 81.67% cases of infiltrating ductal carcinoma whereas Srivastava V et al.(14) observed 83.6% cases of infiltrating ductal

carcinoma in their study. All the cases were graded into clinical stage at presentation . Grade III breast carcinoma was the most common type (50%) in the present study. Srivastava V et al. have reported stage II (62.3%) as the most common clinical stage at presentation . Also, Haque R et al. have reported stage II(46.4%) as the most common clinical stage at presentation . The study has its limitations which include an observational and descriptive study design . Also, the sample size is relatively small . However, it provide valuable information regarding the clinico-pathological aspects of breast cancer patients from rural areas .

### **V. Conclusion**

The incidence of breast cancer in India is increasing and basic education and awareness of the women's health , self breast examination, and clinical breast examination may help increasing awareness and help to identify breast cancer at early stage in developing Countries.

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