

**Carcinoma Breast: Study Between Male and Female Sex Ratio, In Hadoti Region**Akhilesh Meena<sup>1</sup>, Mohit Soni<sup>2</sup>, Monu Nain<sup>3</sup><sup>1</sup>Assistant Professor, Department of Surgery, SRG Hospital and Medical Collage, Jhalawar, Rajasthan, India<sup>2</sup>PG Resident, Department of Surgery, SRG Hospital and Medical Collage, Jhalawar, Rajasthan, India<sup>3</sup>PG Resident, Department of Surgery, SRG Hospital and Medical Collage, Jhalawar, Rajasthan, India

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**Abstract:**

**Introduction:** According to the World Health Organization (WHO), breast cancer is the most prevalent cancer diagnosed in women worldwide and the primary cause of cancer-related deaths [1]. Less than 1% of cases of breast cancer are in men. Over 2.29 million women were diagnosed with breast cancer. Worldwide, breast cancer is the most frequently diagnosed life-threatening cancer in women and the leading cause of cancer death in women. In the United States, breast cancer accounts for 29% of all cancers in women and is second only to lung cancer as a cause of cancer deaths. The general approach to evaluation of breast cancer has become formalized as triple assessment: clinical examination, imaging (usually mammography, ultrasonography or both), and needle biopsy. Increased public awareness and improved screening have led to earlier diagnosis, at stages amenable to complete surgical resection and curative therapies. Improvements in therapy and screening have led to improved survival rates for women diagnosed with breast cancer

**Material and Methods:** The present study was conducted on patients with cancer breast, admitted in various surgical wards of SRG Hospital and Medical College, Jhalawar. Total 100 patients were taken in the study during the study duration of one year after approval of institutional Ethical Committee. We have selected Patients of all age groups and Patients with diagnosis of carcinoma breast submitted for operation.

**Result:** The various results of this study conducted on 100 patients of breast cancer admitted in various surgical units of SRG Hospital and Medical College, Jhalawar. Lump was presenting feature in all 100 cases. the incidence is highest in 4th decade (28%) followed by 5th & 6th decades (26% & 22% respectively). there is high risk of breast cancer in female (95%) But incidence of cancer is also in males (5%). there is almost equal incidence in rural and urban patients with slightly high incidence in urban patients (54%).

**Keywords:** Breast neoplasms, Immunohistochemistry, Lymphatic metastasis, Prognosis

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**Introduction**

According to the World Health Organization (WHO), breast cancer is the most prevalent cancer diagnosed in women worldwide and the primary cause of cancer-related deaths [1]. Less than 1% of cases of breast cancer are in men [2, 3]. Over 2.29 million women were diagnosed with breast cancer in 2022 [4].

Worldwide, breast cancer is the most frequently diagnosed life-threatening cancer in women and the leading cause of cancer death in women.[5] In the United States, breast cancer accounts for 29% of all cancers in women and is second only to lung cancer as a cause of cancer deaths.[6] The general approach to evaluation of breast cancer has become formalized as triple assessment: clinical examination, imaging (usually mammography, ultrasonography or both), and needle biopsy.

Increased public awareness and improved screening have led to earlier diagnosis, at stages amenable to complete surgical resection and curative therapies. Improvements in therapy and screening have led to improved survival rates for women diagnosed with breast cancer. Many patients with early-stage breast cancer are cured with surgery alone. Adjuvant breast cancer therapies are designed the breast and regional lymph nodes but do not yet have an established identifiable metastasis. This rare disease in men is treated in a manner comparable to the therapy standards for women, however the clinicopathological specificities of male breast cancer, according to some writers, differ from those of female breast cancer.

Male breast cancer patients have unique risk factors such as age, family history, Jewish heritage, testicular disease, non-cancerous breast problems, Klinefelter syndrome and BRCA2 mutations, although prognostic variables and survival are thought to be the same as in women [7].

The diagnosis is a critical step in the treatment of breast cancer. Medical imaging advancements have become not only critical in the early detection of breast cancer, but also a reliable component in patient evaluation during treatment. Routine medical checkups serve an important role in lowering the mortality rate of breast cancer.[8] Male breast cancer cases are rare, generally accounting for less than 1% of all breast cancers globally, and specific regional studies in India support this low incidence.

Nationally, the male-to-female incidence rate ratio is extremely skewed, with female rates being more than 100-fold higher than male rates. The National Cancer Registry reports male breast cancer makes up 0.5%–1.5% of cancers in Indian men.

Due to a lack of awareness and screening programs for men, male breast cancer is often diagnosed at a more advanced stage than in women, which can impact prognosis and survival rates.

The best surveillance techniques for male breast cancer survivors are yet unknown [9]. From the time of diagnosis until the end of therapy, males with breast cancer encounter numerous difficulties [10]. males typically come with breast cancer at a greater stage than women due to a lack of knowledge, low awareness, and the lack of prevention initiatives for males [11]. Due of variations in availability to cutting-edge therapy choices, survival measures may differ by nation [12]. The differences in the overall improvement in survival rates and the differences between male and female breast cancer should receive particular attention [12].

**Material and Methods**

The present study was conduct on patients with cancer breast, admitted in various surgical wards of SRG Hospital and Medical College, Jhalawar.

Total 100 patients were taken in the study during the study duration of one year after approval of institutional Ethical Committee. We have selected Patients of all age groups and Patients with diagnosis of carcinoma breast submitted for operation.

**Patient examination:**

1. A detailed history was noted with regards to presenting symptoms, onset of the disease, and duration in chronological order. A detailed interrogation regarding the personal, obstetric, lactational & family history was also taken.
2. Detailed local examination including palpable axillary lymph nodes and size of tumour was done. (Tumour size was measured using an inchtap.)
3. The examination was including a thorough systemic examination to find the metastasis of the disease. Diagnosis was established by FNAC or open/ trucut biopsy. The patient was subjected to various investigations – routine and specific to find out any metastasis which included x-ray chest, bones, LFTs USG, X-ray bone/CT scan/MRI (if indicated). All these findings were used to interpret the staging pattern of the disease.

**Management:** The fit patients were operated upon, and efforts was done to dissect the axilla thoroughly the specimen obtained after surgery were studied in detail regarding the size of the tumour number of lymphnodes and histopathology.

The observations were received according to the headings in the profoma, the master chart prepared and a correlation between the size of the tumour, number of axillary lymph nodes and metastasis was tried to be established.

**Observations and Results**

The following observations are based on a study conducted on 404 cases of breast cancer patients admitted to various surgical units of SRG Hospital and Medical Collage, Jhalawar to establish a correlation between tumour size, axillary lymph nodes and metastasis.

**Table 1: Age Incidence**

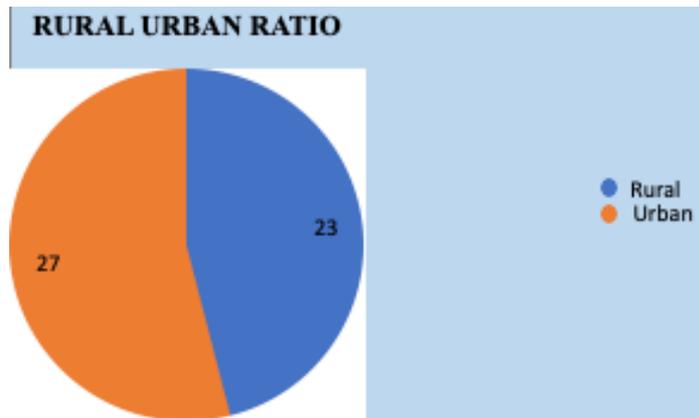
S. No.	Age (yrs)	Number of cases	Percentage (%)
1	11-20	0	0
2	21-30	2	2
3	31-40	28	28
4	41-50	25	25
5	51-60	22	22
6	61-70	21	21
7	71-80	2	2
Total		100	100

In this study the incidence is highest in 4th decade (28%) followed by 5th & 6th decades (26% & 22% respectively).

**Table 2: Sex Incidence**

S. No.	Sex	No. of cases	Percentage (%)
1	Male	5	5
2	Female	95	95
Total		100	100

In our study there is high risk of breast cancer in female (95%) But incidence of cancer is also in males (5%).



**Graph 1: Rural Urban Ratio**

In present study there is almost equal incidence in rural and urban patients with slightly high incidence in urban patients (54%).

**Discussion**

The presence or absence of palpable lymph nodes within the axilla represents one of the important criteria for clinical staging.

Two of the most important prognostic determinants of breast cancer are the number of axillary lymph nodes and the size of the breast tumour. Although the histologic grading of malignancy & clinical staging are comparable from prognostic standpoint, a more accurate prediction in this regard may be obtained when both are considered.

In the present study 95 patients were females and 5 were male.

The peak incidence of breast carcinoma in this series was in the 4th & 5th decades. 28% cases were in the age group of 31-40 yrs., 26% were in the age group of 41-50 yrs. and 22% cases were in the age group of 51-60 yrs.

In Haagenson series the maximum incidence (29.3%) was in the age group of 45-55 yrs., 20.6% in 36-45 & 26.7% in 40-50 yrs. of age group. Cancer below 25 yrs. was just 0.2%. There was a steady increase in incidence of breast cancer after 30 yrs. Similar observation have been made by Indian & western workers viz S. Pal, RK Garg et al, K. Joshi, Hagenson, Aird, Dehi Iversen & Tobiassen, Butcher, Handley &Thackery. The

Boova et al observed that most commonly breast cancer occurs between 50-59 yrs. (67%) followed by 40-49 yrs. (53%).

Barbara A. Terentt however observed that of all cases occur in patients over 60 yrs. of age. The Merson et al noted in their series that breast cancer most commonly occurred in women over 60 yrs. of age (33%) followed by age group of 51-60 yrs. (30%), 41-50 (20%) and less than 40 yrs. (16%).

More public awareness and easy access to hospitals among urban and rural population, in our study the incidence of breast cancer is almost equal in both (In urban 54% and in Rural 46%). On the contrary S. Pal reported only 44% incidence in urban population.

The duration between the appearance of first symptom of breast carcinoma and detection is an important factor as faras survival is concerned 32% of the patients in this present study, presented with the disease at 1-3months after onset and nearly 78% presented within 6 months of onset of disease. R.K. Garg et al, S.K. Nair, Lane Clayton, Harington, Bloom & Hagenson have experienced similar results. However, M.P. Vaidya reported longer duration of symptoms.

In this present study the incidence of breast cancer has found to be 58% in the left breast cancer as compared to only 42% in the right breast. Similar results were seen by Harnett, Smithers et al, Clemmensen and Haagensen, Gerfinkel, Ing et al reported the disease to be equally frequent in left &

right breast. R.K. Garg reported left to right incidence as 48 and 51 percent respectively.

In the present series 62% cases clinically presented with tumour size less than 5 cm. 38% cases with tumour more than 5cm. K. Joshi, Virginia et al. & Fisher et al. had the same experience. On the contrary R.K. Garg et al reported few cases with tumour size less than 5 cms in his study 30% cases had tumour size 5cm diameter followed by sizes of 7.5 & 10 cms in 29% & 23% cases respectively.

In the present series conducted, since the cases selected were those where the local disease was operable & axillary dissection could be performed, patients with advanced disease were excluded from the study. Routine & specific investigations readily available like radiography, LFTs, USG were performed on each patient.

**Limitation:** The enrolled patients are less, need to increase the duration of study to enroll more cancer patients for better results in present study conducted in only one center in Jhalawar, need more centers to be better accuracy of the results.

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