## **Original Research Article**

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# Clinical study of carcinoma breast

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#### **ABSTRACT**

**Background:** Inner lining of lobules or ducts of milk of breast tissue is the origin of the breast cancer. Among females, it constitutes 10.4% of cancer cases incidence all over the world. It thus is the fifth leading cause of mortality all over the world. As known, it is more common in females than males. The objective of this study was to study the clinical and epidemiological profile of breast cancer patients.

**Methods:** A hospital based cross sectional study was carried out for a period of two and half years at M. G. M. Hospital, Warangal. Both males and females of 30 years and above were included in the study. Total number of carcinoma cases admitted during 2005 to 2007 for a period of two and half years were 1,428. Total number of carcinoma breast cases admitted during 2005 to 2007 for a period of two and half years were 242.

**Results:** Maximum cases i.e. 44.6% belonged to stage III of breast cancer. Maximum cases were seen among Hindus i.e. 76.4%. As expected, only one case was reported by males which constituted only 0.42%. Highest number of cases i.e. 99 (40.9%) were reported during the age group of 40-50 years. Multi para women constituted more number of cases in 78.8%. Maximum number of cases of breast cancer i.e. 41.6% occurred among menstruating women. Most commonly affected quadrant was upper outer in 55.1% of cases. The most common type was Schirrous carcinoma in 39.6% of cases.

**Conclusions:** Upper outer quadrant was most commonly affected. This indicates that the women in the reproductive age group should be directed to examine their breast daily with specific attention to upper outer quadrant.

Keywords: Breast cancer, Clinical profile, Schirrous carcinoma

## INTRODUCTION

Among women breast carcinoma is considered as the leading cause of cancer. It is also the second most leading cause of carcinoma for mortality among females in the United States of America. Inner lining of lobules or ducts of milk of breast tissue is the origin of the breast cancer. Among females, it constitutes 10.4% of cancer cases incidence all over the world. It thus is the fifth leading cause of mortality all over the world. As known, it is more common in females than males.<sup>1</sup>

In developed and developing countries, breast carcinoma is the leading cause of cancer among females. Not only this, the new cases are more and more reported in the developing countries. This is due to increasing longevity of the populations, western lifestyle adoption etc. The common feature of breast cancer in developing countries is late stage presentations due to lack of awareness among general public. Hence early diagnosis and treatment is the key in these areas. This can be achieved by screening methods. Screening programs are important in the prevention and control of breast cancer. Breast self-

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examination, palpation by physician, mammography are some of the effective screening methods available.<sup>2</sup>

The risk factors of breast cancer can be divided into modifiable and non-modifiable. The non-modifiable risk factors are increasing age, being female, genetic factors, family history of breast cancer, past history of lesion in the breast, highly dense tissue of breast, exposure to radiation, use of diethylstilbestrol. The modifiable risk factors are late pregnancy, use of oral pills, use of hormones at menopause, lack of breast feeding, use of alcohol, reduced physical activity, history of induced abortion and overweight or obesity. Late menopause is attributed to play a role in breast cancer. Early menarche is also a significant risk factor.<sup>3</sup>

#### **METHODS**

A hospital based cross sectional study was carried out for a period of two and half years at M. G. M. Hospital, Warangal. Institutional Ethics Committee permission was taken before the start of the study. Both males and females of 30 years and above were included in the study. Informed consent was obtained from each and every patient. During the study period, a total of 65,816 patients were admitted in M. G. M. Hospital. Out of them, a total of 18,426 patients were admitted in the surgical wards. Total number of carcinoma cases admitted during 2005 to 2007 for a period of two and half years were 1,428. Total number of carcinoma breast cases admitted during 2005 to 2007 for a period of two and half years were 242. Therefore, Carcinoma breast is accounting for 1.31% of total number of admissions in surgical wards in M. G. M. Hospital.

From each and every patient, the details were noted in the pre-tested, semi-structured questionnaire. The various points covered in the questionnaire were age, sex, parity, religion, stage of carcinoma of breast, side affected, quadrant of the breast affected, age of onset of carcinoma of breast, details of menstrual history with specific relation to menopause, and the histopathological type of the breast cancer. Only patients above the age of 30 years, not having serious diseases which may make them non-cooperative, patients giving consent were included in the study. Patients below the age 30 years and not ready to give consent were excluded from the study.

The data was entered in the Microsoft Excel sheet and analyzed using proportions.

## **RESULTS**

Table 1 shows the stages of breast carcinoma. Maximum cases i.e. 44.6% belonged to stage III of breast cancer. This was followed by stage II in 24.8% and stage IV in 21.5% of cases. only 9.1% of cases belonged to stage I. This may be due to the late reporting by patients. Late reporting is due to the fact that initial stages of carcinoma go unnoticed.

Table 1: Number and percentage of cases of breast carcinoma in relation to staging.

Stage of breast carcinoma	Number	Percentage
Stage I	22	9.1
Stage II	60	24.8
Stage III	108	44.6
Stage IV	52	21.5
Total	242	100

Table 2: Incidence of breast carcinoma religion wise.

Religion	Number	Percentage
Hindu	185	76.4
Muslim	36	14.9
Other	21	8.7
Total	242	100

Table 2 shows the incidence of carcinoma breast with respect to religion of patients. Maximum cases were seen among Hindus i.e. 76.4% followed by 14.9% among Muslim community and only 8.7% of cases among other religion. This is clearly due to the fact that India have majority of Hindu population followed by Muslims and other. Hence we get such results.

Table 3: Incidence of breast cancer sex wise.

Sex	Number	Percentage
Female	241	99.58
Male	01	0.42

Table 3 shows the incidence of breast cancer as per sex. As expected, only one case was reported by males which constituted only 0.42%. All other remaining 241 cases were present among females which are more than 99%.

Table 4: Distribution as per age of onset of breast carcinoma.

Age group (years)	Number	Percentage
30-40	39	16.1
40-50	99	40.9
50-60	53	21.8
60-70	47	19.4
70 and above	04	1.8
Total	242	100

Table 5: Incidence of breast carcinoma in relation to parity.

Parity	Number	Percentage
Nulli para	50	21.2
Multi para	191	78.8
Total	241	100

Table 4 shows distribution of cases of breast cancer as per the age of onset of breast carcinoma. Highest number of cases i.e. 99 (40.9%) were reported during the age group of 40-50 years followed by 50-60 years among 21.8% of cases. Only four cases were reported in the age group of 70 and above.

Table 5 shows the distribution of cases as per the parity. Multi para women constituted more number of cases in 78.8% and nulli para women constituted only 21.2% of cases.

Table 6: Incidence of breast carcinoma in relation to menstruation.

Menstrual status	Number	Percentage
Pre-menopausal	100	41.6
Post-menopausal	141	25.4
Total	241	100

Table 6 shows the incidence of breast cancer in relation to menstruation. It can be observed from above table that maximum number of cases of breast cancer i.e. 41.6% occurred among menstruating women. While only 25.4% of cases were seen among post-menopausal women.

Table 7: Incidence of breast carcinoma in relation to side affected.

Side affected	Number	Percentage
Right	106	43.7
Left	103	56.3
Total	242	100

Table 7 shows incidence of breast carcinoma in relation to side affected. 56.3% of cases were showing that the left side of breast was affected while 43.7% of cases were showing that right side of breast was affected by breast cancer.

Table 8: Incidence of breast carcinoma in relation to quadrant of breast affected.

Quadrant affected	Number	Percentage
Upper outer	133	55.1
Upper medial	60	28.6
Lower medial	13	5.1
Lower outer	27	11.2
Total	242	100

Table 8 shows incidence of breast cancer in relation to quadrant of breast affected. Most commonly affected quadrant was upper outer in 55.1% of cases followed by upper medical in 28.6% of cases and lower outer in 11.2% of cases. while lower medial quadrant was the least affected in 5.1% of cases.

Table 9 shows the frequency of histopathological types in breast cancer. The most common type was Schirrous

carcinoma in 39.6% of cases followed by medullary carcinoma in 33.3% of cases. This was followed by comedo carcinoma in 11.8% of cases and lobular carcinoma inn 9.2% of cases. while papillary carcinoma type was seen in only 6.1% of cases.

Table 9: Frequency of histopathological types in breast cancer.

Histopathological type	Number	Percentage
Papillary carcinoma	15	6.1
Comedo carcinoma	29	11.8
Schirrous carcinoma	96	39.6
Medullary carcinoma	80	33.3
Lobular carcinoma	22	9.2
Total	242	100

#### DISCUSSION

Maximum cases i.e. 44.6% belonged to stage III of breast cancer. This was followed by stage II in 24.8% and stage IV in 21.5% of cases. Only 9.1% of cases belonged to stage I. This may be due to the late reporting by patients. Late reporting is since initial stages of carcinoma go unnoticed. Maximum cases were seen among Hindus i.e. 76.4% followed by 14.9% among Muslim community and only 8.7% of cases among other religion. This is clearly since India have majority of Hindu population followed by Muslims and other. Hence we get such results. As expected, only one case was reported by males which constituted only 0.42%. All other remaining 241 cases were present among females which are more than 99%. Highest number of cases i.e. 99 (40.9%) were reported during the age group of 40-50 years followed by 50-60 years among 21.8% of cases. Only four cases were reported in the age group of 70 and above. Multi para women constituted more number of cases in 78.8% and nulli para women constituted only 21.2% of cases. Maximum number of cases of breast cancer i.e. 41.6% occurred among menstruating women. Most commonly affected quadrant was upper outer in 55.1% of cases. The most common type was Schirrous carcinoma in 39.6% of cases.

Groenvold found that the validity of questionnaire was supported by the proper studies.<sup>4</sup> They reported that it gave good results that were beyond their study. These results helped them to avoid the misinterpretation or properly interpret the clinical data. Their study gave more description on health-related quality of life and breast cancer.

Kruk J observed that late menarche, breast feeding for long duration, increased exercise, more intake of fruits and vegetables, were the factors which helped reduce the incidence of breast cancer.<sup>5</sup> Family history of breast carcinoma, smoking, stress were found to be associated with breast cancer. They also reported that if the family

income was less then this factor increased the chances of cancer especially among females before menopause.

Hirose K, noted that family history of breast cancer among the close blood relative or the previous history of breast carcinoma were the factors which increased the chances of having present breast cancer in females. They found that proper exercise protected from the risk of having breast cancer. Well balanced nutritious diet increased the chances of getting protected against breast cancer. Smoking and use of alcohol increased the risk of breast cancer. Fruits and vegetables helped to protect against breast cancer.

Tung HT et al, observed that body mass index more than  $25~kg/m^2$  was a significant risk factor especially for women after menopause. This BMI they compared with BMI of less than or equal to 20. Body weight of more than or equal to 58 kg was also found to be an important risk factor for breast cancer compared to body weight of less than or equal to 47 kg. They also noted that the height of more than equal to 159 cm was a risk factor for breast cancer in comparison to height of less than or equal to 149 cm.

Kruk J, found that increased physical activity was protective for breast cancer. They calculated the lifetime physical activity combining the household activity and recreational activity. They compared the initiation of recreational physical activity as per age. They found that women who started early recreational physical activity from the age of 14 years were less likely to develop the breast cancer compared to women who started their recreational physical activity after the age of their 20 years of age.

Bernstein L et al, found that after calculating the average MET hours/week/year, the risk of breast cancer was decreased among women with good scores of physical activities. They observed that females had 20% less risk of breast cancer if their average annual lifetime physical activity was more than average. They could not found any significant difference among black or white women.

Verloop J et al, observed that compared the activity at ages of 10-12 years. They observed that those who were less active were at more risk of developing breast cancer as compared to those who were more active. <sup>10</sup> They did not find any association between recreational activity and breast cancer. Those women who had low body mass index were found to have a low risk of breast cancer as compared to women who had higher body mass index.

## **CONCLUSION**

We conclude that upper outer quadrant was most commonly affected. This indicates that the women in the reproductive age group should be directed to examine their breast daily with specific attention to upper outer quadrant. The most common affected age group was 40-50 years. Hence women of age 30 years and above should be educated to practice self-breast examination daily so that an early detection of breast cancer can help to cure it. Multi para women should be more cautious towards breast cancer.

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institutional ethics committee

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