Carcinoma Breast, Causes and Risk Factors

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ABSTRACT

OBJECTIVE: This study was done to determine causes and risk factors of carcinoma breast and prevalence of carcinoma breast in different age groups of females.

STUDY DESIGN: It is a descriptive prospective type of study.

DURATION AND PLACE: This study was done on patients admitted in oncology ward of bahawal Victoria Hospital Bahawalpur from January 2017 to December 2017.

PATIENTS AND METHODS: This study was conducted on total 66 patients admitted in oncology ward of the hospital. They were admitted via OPD bases. They were in different stage of disease for relevant treatment either neo adjuvant or adjuvant chemotherapy, surgery or palliative chemotherapy in advance stages of carcinoma in which distal metastasis has occurred in lungs or bones. These all patients were underwent necessary investigations including mammography, ultrasound breast, tumor markers, metastatic workup via CT abdomen and chest, ultrasound abdomen. Detailed history of these patients was taken for any family factors or history of carcinoma in relatives. Thorough examination of such patients done for any palpable lymph nodes, size and site of tumor, involvement of skin or underlying muscles, puckering of skin etc. A proforma was designed mentioning all necessary questions regarding age of patients, age at menarche or menopause, risk factors and family history etc. data of each patient was documented with her consent and privacy was assured. A proper consent was taken from medical superintendent of the hospital to carry out study.

RESULTS: Total 66 patients were studied with carcinoma breast out of which 27(%) were above 50 years of age and 39 were below 50 years. There were 3(%) in 20-30 years age, 11(16.67%) in 31-40 years, 22(33.33%) in 51-60 years and 5(15.2%) above 60 years of age. Out of 66 cases, 36(54.5%) had age of menopause between 40-45 years, 20(30.3%) in 46-50 years and 10(15.2%) had menopause in age more than 50 years. In most of these patients age of menarche was 13-15 years. There were 6(9%) nulliparous, 25(37.8%) had 1-2 children, 31(46.9%) had 3-4 children and 4(6%) had more than 4 children. It was seen that mosty patients were above 40 years of age with late menopause and early menarche. All data was composed on Microsoft office version 2007 and it was expressed via graphs, tables and charts.

CONCLUSION: From this study it was concluded that risk factors of carcinoma breast include positive family history of malignancy, old age of patient, early menarche, menopause in late age and nulliparous. In our society all these factors contribute to breast cancer.

KEY WORDS: Carcinoma breast, risk factors, etiology, prevalence

INTRODUCTION

Breast cancer is very common in our community. This is also one of the common malignancies in developed countries as well such as in America its prevalence is 24%.1 In Pakistan prevalence of this cancer is very high among females causing increased mortality rate.2,3 If this cancer is diagnosed in early stages before metastasis and prompt treatment is given in time then morbidity and mortality can be controlled.4 If treated in early stages it has good prognoses. Its main risk factors are early menarche, late menopause, nulliparity and avoiding breast feeding.5-7 This study was done to determine various etiological factors of breast cancer so that they may be dealt to decrease incidence of this cancer. When patient presents early to any health facility with initial stages of cancer then staging workup should be done quickly and cases should be reported properly and referred to an oncology department of a tertiary hospital. Many advanced cases are reported with metastasis because they were ignorant about their problem and they were taking treatment from some quacks or few doctors doing general practice in the periphery not having updated knowledge or skills to diagnose the disease. Any lump in the breast should be evaluated for malignancy as its incidence is high in our country. Patient should undergo all necessary investigations. Mamography is indicated in older females and in young females with breast lump ultrasound is indicated as they have dense breast tissue. Other tests are tumor marker detection and staging workup if tumor is detected which includes CT chest, ultrasound abdomen and bone scan. This tumor metastasizes to liver, lungs and bones. Any patient with breast tumor if complains of bone pain then bone metastasis should be suspected and bone scan should be done. Mamography is a screening technique to evaluate normal female population for breast cancer. It is low cost and efficient technique. Treatment depends on the stage of cancer. In Initial
PATIENTS AND METHODS

This is a prospective study done in the duration of one year in Anmol Cancer Hospital located in the city of Lahore. It is a well developed hospital just for cancer patients with all necessary facilities. This study was conducted on total 66 patients admitted in oncology ward of the hospital. They were admitted via OPD bases. They were in different stages of disease for relevant treatment either neo adjuvant or adjuvant chemotherapy, surgery or palliative chemotherapy in advance stages of carcinoma in which distal metastasis has occurred in lungs or bones. These all patients were underwent necessary investigations including mammography, ultrasound breast, tumor markers, metastatic workup via CT abdomen and chest ultrasound abdomen. Detailed history of these patients was taken for any family factors or history of carcinoma in relatives. Thorough examination of such patients done for any palpable lymph nodes, size and site of tumor, involvement of skin or underlying muscles, puckering of skin etc. A proforma was designed mentioning all necessary questions regarding age of patients, age at menarche or menopause, risk factors and family history etc. data of each patient was documented with her consent and privacy was assured. A proper consent was taken from medical superintendent of the hospital to carry out study. Previous studies on this topic were also taken for reference and for comparison of our data. Only those cases were studied which had diagnosed for carcinoma breast and all necessary investigations were done and they were given plan of treatment as well. Which patients were not diagnosed for the disease and were under evaluation procedure or lacking investigations they were not included in the study.

RESULTS

Patients presenting with breast cancer during one year duration irrespective of their age and stage of disease were selected for study. Total 66 patients were studied with carcinoma breast out of which 27(%) were above 50 years of age and 39 were below 50 years. There were 3(%) in 20-30 years age, 11(16.67%) in 31-40 years, 25 (37.87%) lying in age group of 41-50 years, 22(33.3%) in 51-60 years and 5(%) above 60 years of age. Out of 66 cases, 36(54.5%) had age of menopause between 40-45 years, 20(30.3%) in 46-50 years and 10(15.2%) had menopause in age more than 50 years. In most of these patients age of menarche was 13-15 years. There were 6(9%) nulliparous, 25(37.8%) had 1-2 children, 31(46.9%) had 3-4 children and 4(6%) had more than 4 children. It was seen that mostly patients were above 40 years of age with late menopause and early menarche. All data was composed on Microsoft office version 2007 and it was expressed via graphs, tables and charts. It was seen that most of the patients were in age of 40-60 years as in advancing age its incidence increases and in young age it has low incidence. In very old age more than 60 years incidence was low. Females with multiparity have high incidence as compared to those with no child or one child just. There were mostly those females which had 3-4 children. Which women avoid breast feeding, they are also on high risk.
(Table-2) number of children of female patients

<table>
<thead>
<tr>
<th>Number of children</th>
<th>Number of patients</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No child</td>
<td>6</td>
<td>9.1</td>
</tr>
<tr>
<td>1-2</td>
<td>25</td>
<td>37.8</td>
</tr>
<tr>
<td>3-4</td>
<td>31</td>
<td>46.9</td>
</tr>
<tr>
<td>More than 4</td>
<td>4</td>
<td>6.1</td>
</tr>
</tbody>
</table>

distribution of patients regarding socioeconomic status (%)

- Low class: 9%
- Middle class: 36%
- High class: 55%

DISCUSSION

All over the world breast cancer is very common. It is most prevalent cancer on second number. Underdeveloped and developing countries where majority of people belong to low socioeconomic status have high incidence of breast cancer. Breast cancer is very common in our community. This is also one of the common malignancies in developed countries as well such as in America its prevalence is 24%. If this cancer is diagnosed in early stages before metastasis and prompt treatment is given in time then morbidity and mortality can be controlled. If treated in early stages it has good prognoses. Its main risk factors are early menarche, late menopause, nulliparity and avoiding breast feeding. This study was done to determine various etiological factors of breast cancer so that they may be dealt to decrease incidence of this cancer. When patient presents early to any health facility with initial stages of cancer then staging workup should be done quickly and cases should be reported properly and referred to an oncology department of a tertiary hospital. Many advanced cases are reported with metastasis because they were ignorant about their problem and they were taking treatment from some quakes or few doctors doing general practice in the periphery not having updated knowledge or skills to diagnose the disease. This is a prospective study done in the duration of one year in Anmol Cancer Hospital located in the city of Lahore. It is a well developed hospital just for cancer patients with all necessary facilities. This study was conducted on total 66 patients admitted in oncology ward of the hospital. They were admitted via OPD bases. They were in different stages of disease for relevant treatment either neo adjuvant or adjuvant chemotherapy, surgery or palliative chemotherapy in advance stages of carcinoma in which distal metastasis has occurred in lungs or bones. These all patients were underwent necessary investigations including mammography, ultrasound breast, tumor markers, metastatic workup via CT abdomen and chest, ultrasound abdomen. Detailed history of these patients was taken for any family factors or history of carcinoma in relatives. Thorough examination of such patients done for any palpable lymph nodes, size and site of tumor, involvement of skin or underlying muscles, puckering of skin etc. Mamography is indicated in older females and in young females with breast lump ultrasound is indicated as they have dense breast tissue. Other tests are tumor marker detection and staging workup if tumor is detected which includes CT chest, ultrasound abdomen and bone scan. This tumor metastasizes to liver, lungs and bones. Any patient with breast tumor if complains of bone pain then bone metastasis should be suspected and bone scan should be done. Mamography is a screening technique to evaluate normal female population for breast cancer. It is low cost and efficient technique. Treatment depends on the stage of cancer. In Initial stages surgery is indicated such as radical or modified radical mastectomy with neo adjuvant or adjuvant chemotherapy. In late stages with distal mets just palliative treatment is indicated. Old females are on high risk. Long duration of reproductive age with early menarche and late menopause in above 50 years was found to be a risk factor. In Initial stages surgery is indicated such as radical or modified radical mastectomy with neo adjuvant or adjuvant chemotherapy. In late stages with distal mets just palliative treatment is indicated. Old females are on high risk. Long duration of reproductive age with early menarche and late menopause in above 50 years was found to be a risk factor.

CONCLUSION:

From this study it was concluded that risk factors of carcinoma breast include positive family history of malignancy, old age of patient, early menarche, menopause in late age and nulliparous. Prevalence
of breast cancer is much high in our community and much work is needed in this aspect. Although many studies have been done on breast cancer but there should be further studies on its risk factors so that these factors may be controlled. There should be public awareness about this especially among females. Education level of community and specifically of females plays a main role. High incidence of this disease is because females in our community are not aware of this.

Reference: