

Prevalence Of Breast Cancer In Punjab

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Citation

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Abstract

The prevalence of breast cancer was evaluated. For this purpose, data was recorded from Bahawalpur Institute of Nuclear Medicines and Oncology (BINO). The results showed that prevalence of breast cancer during the year 2006, 2007, and 2008 was in increasing order. Data recorded on age of the patient at diagnosis, their residential areas, types of CA breast, stage of the disease and involved breast revealed that there is a peak of CA breast in the age group of 30-50 years and the patients visited BINO for diagnosis and treatment were mostly from Bahawalpur district followed by Bahawalnagar, Rahim Yar Khan and Multan etc. The commonest type of breast cancer recorded among the patients treated during 2006, 2007 and 2008 at BINO was infiltrating Ductal Cell Carcinoma. The patients were mostly diagnosed at II and III stage of breast cancer and most of the patients had carcinoma in their right breast.

INTRODUCTION

Breast cancer is one of the most common malignancies, affecting about one woman in nine. It is probably the most feared cancer in women because of its psychological impacts. It effects the perception of sexuality and self image to a degree far greater than any other cancer (Scanlon, 1991). "Breast cancer is of two types i.e. lobular and ductal. Lobular cancer starts in many small sacs in the breast that produce milk. Ductal cancer is much more common than the lobular cancer (Dollinger et al., 1991). A lump may appear several years before cancer starts. There is a wide difference in the way a breast cancer behaves. It may remain confined to breast for long time, or in other cases, spread to nearby lymph nodes and istant organs early in the disease (Dollinger et al., 1991).

No definite causes have been established for the breast cancer although genetic factors, personal history and diet all play an important role. A dramatic increase is taking place in the incidence of cancer, specifically breast cancer in women. Even in previously low risk countries, developing Asian countries the incidence of breast cancer has increased sharply over the past three decades (Geoffery, 1994; Coleman et al., 1993)." The incidence of breast cancer in Karachi, Pakistan is 69.1 per 100,000 with breast cancer presentation in stage III and IV being common (Ahmed et al., 2006).

METHODOLOGY

To collect data on prevalence of breast cancer, secondary data was recorded from the record of BINO (Bahawalpur Institute of Nuclear medicine and Oncology). The parameters selected for prevalence are as under:

1. Age of the Breast cancer patient on diagnosis
2. Address of the patient
3. Type of breast cancer
4. Stage of the breast cancer
5. Involved breast

After collection, with the consultation of Statistician at the Department of Statistics, The Islamia University of Bahawalpur, the data collected on all parameters was organized in tabulated form and typed in a statistical package i-e SPSS for further analysis. Descriptive analysis was done and histograms regarding each parameter were prepared.

RESULTS AND DISCUSSION

RESULTS

Present study was conducted to explore the prevalence of breast cancer and psychological effects during and after treatment. The results achieved are being described under

separate headings:

Prevalence of breast cancer in Bahawalpur and its adjoining areas was evaluated and the results achieved in this regard are being described under different parameters.

AGE OF THE PATIENT AT DIAGNOSIS

The risk of getting breast cancer increases with increasing age, but young women can also be at great risk of getting breast cancer. Between the ages of 40-59 the risk increases 4 % and between the ages of 60-79 the risk is 7%. Developing a healthy life style can reduce the risk. The result of the present study showed that during the year 2006, 175 breast cancer patients visited the BINO. During this year maximum breast cancer patients (55) were recorded at the age group of 40-50 years whereas minimum (2) patients were recorded at the age group of 10-20 years. The breast cancer patient recorded at the age group of 21-30 were 23, at age group of 31-40 were 35, at age group of 51-60 were 35, at age group of 61-70, the breast cancer patients were 18 and only 8 patients were recorded at the age group of 71-80 years. During the year 2007, 135 breast cancer patients visited the BINO for their treatments. During this year maximum breast cancer patients (46) were recorded at the age group of 41-50 years whereas minimum (1) patient was recorded at the age group of 71-80 years. The breast cancer patients recorded at the age group of 10-20 years were 5, at the age group of 21-30 years were 15, at the age group of 31-40 years were 28, at the age group of 51-60 years were 33 and at the age group of 61-70 years were 10. During the year 2008, 144 breast cancer patients visited the BINO for their treatments. During this year maximum breast cancer patients (43) were recorded at the age group of 41-50 years whereas minimum (2) patients were recorded at the age group of 10-20 years. The breast cancer patients recorded at the age group of 21-30 years were 20, at the age group of 31-40 years were 39, at the age group of 51-60 years were 20, at the age group of 61-70 years were 10 and at the age group of 71-80 years were only 3 (Figure 1).

RESIDENTIAL AREA OF THE PATIENT

Bahawalpur Institute of Nuclear Medicine and Oncology (BINO) is serving the cancer patients belonging to Bahawalpur and surrounding areas such as Bahawalnagar, Rahim Yar Khan and Lodhran. The data recorded with regard to the number of breast cancer patients visited from Bahawalpur and its adjoining areas showed that during the year of 2006, 175 breast cancer patients visited the BINO. Out of 175 breast cancer patients 60 patients were from

Bahawalpur, 57 from Rahim Yar Khan, 25 from Bahawalnagar, 18 were Lodhran and only 3 patients visited BINO from each Multan, Veharri and Khanewal districts. During 2007, 135 breast cancer patients visited the BINO for treatments. Out of 135 breast cancer patients 58 were from Bahawalpur, 40 were from Rahim Yar Khan, 15 patients belonged to Bahawalnagar and 10 from Lodhran district. From Multan, Vehari and Khanewal districts only 2, 3 and 5 patients, respectively visited BINO for breast cancer treatment. During 2008, 144 breast cancer patients visited BINO for treatments. Out of 144 breast cancer patients 49 patients were from Bahawalpur, 41 were from Rahim Yar Khan, 32 patients from Bahawalnagar and 12 patients from Lodhran district. The breast cancer patients visited BINO for treatments from Multan were 4, from Vehari were 3 and from Khanewal district were 3 (Figure 2).

The type of breast cancer recorded in the patients, who visited the BINO during the year 2006 has Infiltrating ductal cell carcinoma. Total number of breast cancer patients visited the BINO during the year 2006 were 175. (Figure 3). Out of which 129 patients were suffering from Infiltrating ductal cell carcinoma, 27 patients were suffering from Invasive lobular carcinoma and only 19 patients were suffering from Phylloid Tumor. The number of patients visited the BINO during the year 2007 were 135 (Figure 3). Out of them, 99 patients were suffered from Infiltrating ductal cell carcinoma, 29 with Invasive lobular carcinoma and 7 patients had Phylloid Tumor. During 2008 number of the patients visited the BINO for their treatment were 144 (Figure 3). Out of these patients, 82 suffering from infiltrating ductal cell carcinoma, 43 from Invasive lobular carcinoma and 19 patients were suffering from Phylloid Tumor.

STAGE OF THE DISEASE

The data recorded with regard to the stage of the breast cancer at which it diagnosed in the patient is given in Figure 4. Breast cancer is usually diagnosed at advance stage and there are many factors responsible for it such as ignorance of self health or low socio-economic status. Majority of the Oncologist are males so females feel reluctant to discuss their disease and get any medical help from them. Breast cancer is asymptomatic in early stage that's why it remains unnoticed. Breast cancer if diagnosed at its early stage can easily be treated it is not diagnosed at early stages because of many reasons. During 2006, 175 breast cancer patients visited the BINO for their treatment, out of which, 63 patients were diagnosed at II-nd stage of breast cancer, 71

patients were diagnosed at IIIrd stage of breast cancer and 41 breast cancer patients were diagnosed at IV stage of breast cancer. During 2007, 135 breast cancer patients visited the BINO for treatment. Out of which, 28 patients were diagnosed at II-nd stage of breast cancer, 66 patients were diagnosed at III stage of breast cancer and 41 patients were diagnosed at IV stage of breast cancer. During 2008, 144 breast cancer patients visited the BINO for treatment, of which 30 patients were diagnosed at II-nd stage of breast cancer, 80 patients were diagnosed at III stage and 34 breast cancer patients were diagnosed at IV stage of the disease.

INVOLVED BREAST

The data recorded with regard to the breast involved in disease is given in Figure 5. Total number of patients visited the BINO during 2006 were 175. Out of which, in 96 patients right breast was involved in cancer, in 75 patients left breast was involved in cancer. Only 4 patients were recorded who have bilateral CA breast. Total number of patients visited the BINO during 2007 were 135. Out of these 135 patients, 87 patients reported that their right breast is involved in cancer whereas 48 patients reported that left breast is involved in cancer. Total number of patients visited the BINO during 2008 were 144. Out of which in 81 patients their right breast was involved in cancer whereas in 60 patients their left breast was involved in cancer and only 3 patients had bilateral CA breast.

Figure 1

Figure 1. Prevalence of Breast cancer in different age groups of the patients recorded during 2006, 2007 and 2008.

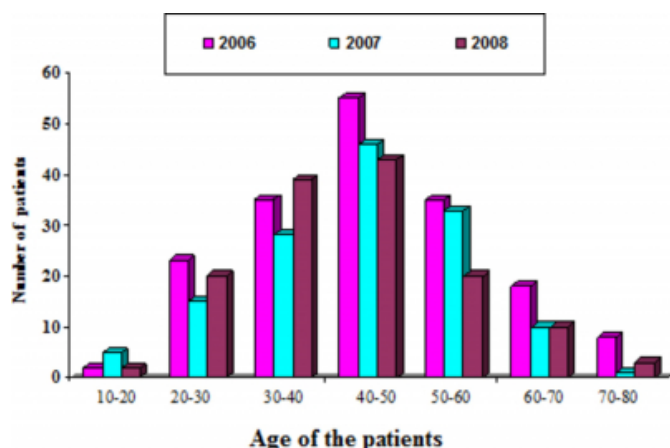


Figure 2

Figure 2. Number of breast cancer patients visited BINO during 2006, 2007, 2008 from Bahawalpur and its adjoining areas.

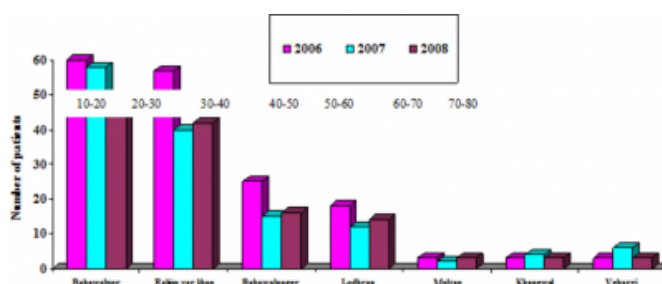


Figure 3

Figure 3. Types of the breast cancer recorded in Breast cancer patients during 2006, 2007, 2008.

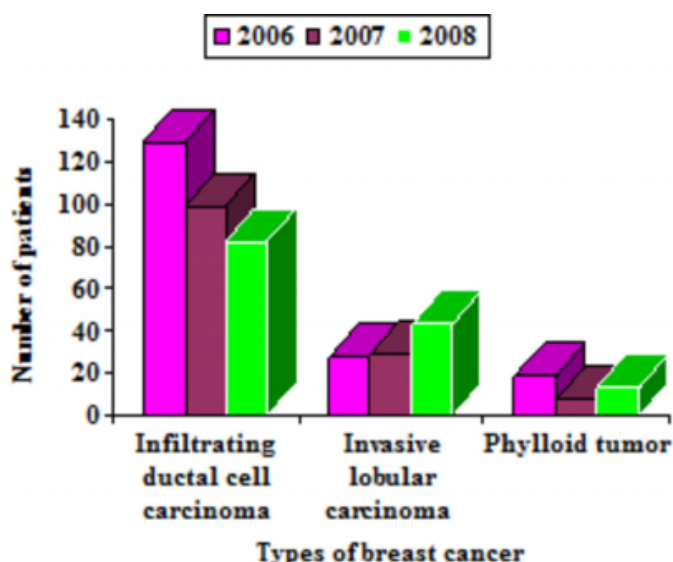


Figure 4

Figure 4. Number of breast cancer patients in different stages

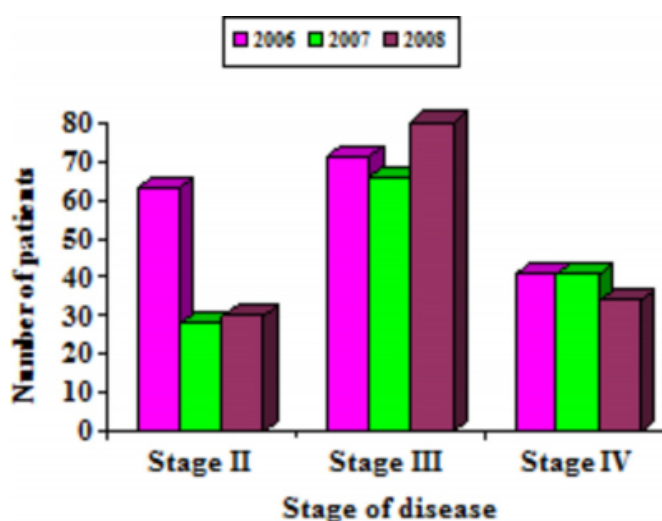
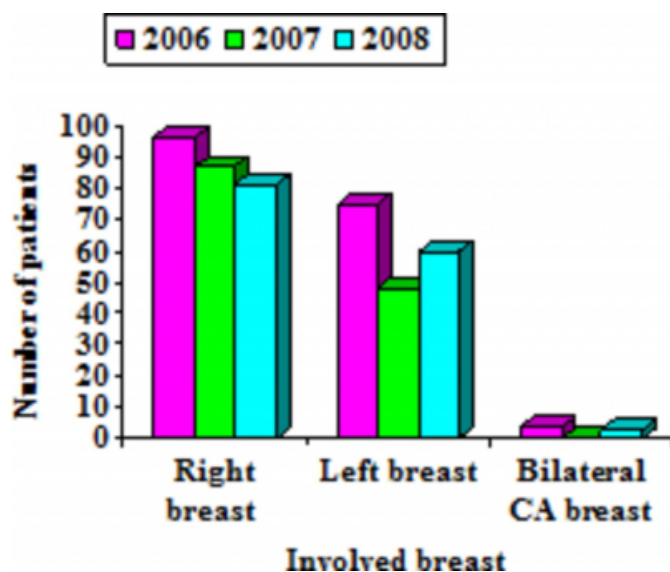


Figure 5

Figure 5. Detail of patients with regard to involvement of breast.



DISCUSSION

The incidence of breast cancer increases with age and doubles every 10 years until the menopause when the rate of increase slows. Approximately a quarter of breast cancers affect women under the age of 50, a half occur between the ages of 50 and 69 and the remaining quarter develop in women who are 70 years or older.

In present study we observed that number of breast cancer patients increased as age limits increased and the prevalence of breast cancer can be linked with the reproductive age of the patient (25-50 years). It might be due to secretion of some female sex hormones or due to the use of contraceptive pills which is very common in females. Results showed that there was peak of breast cancer during the age group of 30-50 years. As menopause occurs, the chance of breast cancer occurrence declines, therefore very less number of patients were recorded in the age group of 60-80 years. Similarly the number of breast cancer patients during the early age groups as 20-30 years were also low.

There is quite a difference in incidence and death rate of breast cancer between different countries. The biggest difference is between Eastern and Western countries. Recent, age-adjusted figures show that the rate of breast cancer per 100,000 women is 24.3 in Japan and 26.5 in China compared to 68.8 in England and Wales and 72.7 in Scotland and 90.7 in North America in white females.

In present study we evaluated the occurrence of the breast cancer in Bahawalpur and different districts nearby the

Bahawalpur. The results showed that the majority of the patients coming to BINO for breast cancer treatment were from Bahawalpur district. This may be due to the reason that BINO is situated in Bahawalpur city. A handsome amount of breast cancer patients also visited BINO from Rahim Yar Khan and Bahawalnagar districts for the treatment of the disease. But the study showed that maximum breast cancer patients were from the Bahawalpur, followed by Rahim Yar Khan and Bahawalnagar.

The most common types of breast cancer begin either in breast's milk ducts (ductal carcinoma) or in the milk-producing glands (lobular carcinoma). The point of origin is determined by the appearance of the cancer cells under a microscope. In situ (noninvasive) breast cancer refers to cancer in which the cells have remained within their place of origin — they haven't spread to breast tissue around the duct or lobule. The most common type of noninvasive breast cancer is ductal carcinoma in situ (DCIS), which is confined to the lining of the milk ducts. The abnormal cells haven't spread through the duct walls into surrounding breast tissue. With appropriate treatment, DCIS has an excellent prognosis. Invasive (infiltrating) breast cancers spread outside the membrane that lines a duct or lobule, invading the surrounding tissues. The cancer cells can then travel to other parts of body, such as the lymph nodes. IDC accounts for about 70 percent of all breast cancers. The cancer cells form in the lining of milk duct, then break through the ductal wall and invade nearby breast tissue. The cancer cells may remain localized — staying near the site of origin -or spread (metastasize) throughout your body, carried by your bloodstream or lymphatic system. Although less common than IDC, this type of breast cancer invades in a similar way, starting in the milk-producing lobules and then breaking into the surrounding breast tissue. ILC can also spread to more distant parts of your body. With this type of cancer, you typically won't feel a distinct, firm lump but rather a fullness or area of thickening.

The results of present study showed that the patients of breast cancer who visited BINO for their treatment mostly were suffering from Infiltrating ductal cell carcinoma (65%). Some patients were suffering from Invasive lobular carcinoma (30%) and only few patients were suffering from phylloid tumor. Therefore, it can be reported that the common type of breast cancer in and around Bahawalpur is Infiltrating ductal cell carcinoma. In stage 1 breast cancer, the cancer is no larger than two centimeters (approximately an inch) and has not spread to surrounding lymph nodes or

outside the breast. Stage 2 breast cancer is divided into two categories according to the size of the tumor and whether or not it has spread to the lymph nodes: Stage II A Breast Cancer—the tumor is less than two centimeters (approximately an inch) and has spread up to three auxiliary underarm lymph nodes. Or, the tumor has grown bigger than two centimeters, but no larger than five centimeters (approximately two inches) and has not spread to surrounding lymph nodes. Stage II B Breast Cancer— the tumor has grown to between two and five centimeters (approximately one to two inches) and has spread to up to three auxiliary underarm lymph nodes. Or, the tumor is larger than five centimeters, but has not spread to the surrounding lymph nodes. Stage 3 breast cancer is also divided in to two categories: Stage III A Breast Cancer—the tumor is larger than two centimeters but smaller than five centimeters (approximately one to two inches) and has spread to up to nine auxiliary underarm lymph nodes. Stage III B Breast Cancer— the cancer has spread to tissues near the breast including the skin, chest wall, ribs, muscles, or lymph nodes in the chest wall or above the collarbone. In stage 4 breast cancer, the cancer has spread to other organs

or tissues, such as the liver, lungs, brain, skeletal system, or lymph nodes near the collarbone.

The results of present study revealed that in majority of the breast cancer patients the disease is diagnosed at stage 3 followed by stage 2. The late diagnosis of breast cancer in the study area may be due to many factors including lack of education and awareness of the disease, females hesitate to disclose the disease in front of male physicians, poverty, females feel shy to report such problems to their husbands or other female members of the family. Mostly the females living in villages/ rural areas do not disclose the disease at its early stage because they consider it a simple type of sore/ swelling and try to visit spiritual healers for “ Dam “ or to local herbal practitioners (Hakims) and homeopaths.

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