

# In a tertiary care centre, the study examined breast cancer risk factors, clinical presentation, and treatment

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## ABSTRACT

**Background:** The most frequent type of cancer among women is breast cancer. In terms of total cancers, it is ranked second. Many risk factors are linked to it. Breast cancer can manifest itself in a variety of ways, ranging from invasive carcinoma to non-invasive carcinoma.

**Aim and objective:** To explore the risk factors, clinical presentation, and management of breast cancer, 100 patients with diagnosed breast cancer were evaluated in a tertiary care centre. Data was gathered using a pre-tested questionnaire. Demographic characteristics, clinical presentation, risk factors, and breast cancer management were all collected. Data was evaluated using statistical tests.

**Results and discussion:** All of the patients had a lump in their breast (100 percent). A lump with pain was detected in 21% of the patients. The most prevalent histopathological type was infiltrating duct carcinoma (97 percent). The majority of the patients (56 percent) were in stage II, followed by stage I. (23 percent). The patient's average age was 52.21±4.6 years. Menarche occurred at an average age of 13.86±1.8 years. The average age of menopause was 46.3±4.31. The average number of months spent breastfeeding was 36.41±5.62. A modified radical mastectomy was provided to 51% of patients, while total mastectomy was offered to 23%.

**Keyword:** breastcancer, breast feeding, breast carcinoma, lobular and ductular carcinoma in situ

## INTRODUCTION

Breast cancer is the most common cancer in women, accounting for 16 percent of all malignancies in women (WHO, 2008). Breast cancer is becoming more common as people's financial levels and lifestyles change, putting a great strain on the healthcare system. Cancer rates could grow by 50% until 2020, bringing the total number of people diagnosed with cancer to 15 million. As a result of this increase, more women than men are dying from breast and cervical cancer around the world today [1]. Breast cancer is rapidly becoming India's most frequent cancer, with incidence and death varying by location. It is the most common malignancy diagnosed among women in industrialised countries, and it ranks second only to cervical cancer in developing countries. [2,3] There are two types of carcinoma: invasive and non-invasive. Non-invasive carcinoma is defined as epithelial growth confined to either the mammary duct or the lobule, as in ductal carcinoma in situ (DCIS) or lobular carcinoma in situ (LCIS). The lymph nodes, lungs, brain, and bone are the most common sites of metastasis. The geographical diversity in breast cancer incidence is attributed to exposure to numerous risk factors. Increasing age (prolonged exposure to endogenous estrogens is early menarche, late menopause), late first full term pregnancy, nulliparity, no breast feeding, family history of breast cancer, a bad diet with high fat, and physical inactivity are some of the risk factors for breast cancer. [4-8]

## MATERIAL AND METHODS

Present study was a prospective study conducted in a tertiary care centre. Study population was patients with histologically confirmed neoplastic breast diseases seen in the surgical out-patient department over a period of two years.

### INCLUSION CRITERIA

Histologically confirmed neoplastic disease of breast.

### EXCLUSION CRITERIA

1. Breast lesions not confirmed histologically 2. Those with histologically confirmed non- neoplastic lesions 3. Those who were not willing to participate. After explaining the study and method to the patient, they signed a proper written consent form. A pretested questionnaire was used to collect data. Demographic variables, clinical stage at presentation, risk factors, and management were all included in the data (including operative procedures and chemo-radiotherapy). The TNM staging classification was utilised, and clinical stages were divided into three categories: early stage (stages 1 and 2A), advanced stage (stages 2B and 3C), and metastatic stage (stages 3 and 4). (stage 4). Data were analyzed with appropriate statistical tests.

## RESULTS

According to the inclusion and exclusion criteria, a total of 100 patients were evaluated. All of the patients had a lump in their breast (100 percent). A lump with pain was reported by 21% of patients, while a lump with nipple discharge was reported by 2%. (table1) Histopathological examinations were performed on all of the patients. The most common histological type was infiltrating duct carcinoma (97 percent), followed by Paget's disease (2 percent). On histology, 1% of the patients had medullary cancer. (table2) Breast cancer was staged using TNM staging. The majority of the patients (56 percent) were in stage II, followed by stage I. (23 percent). Stage III patients accounted for 12% of the total, whereas stage IV patients accounted for 9%. (table3) The patient's average age was  $52.21 \pm 4.6$  years, with a range of 28 to 67 years. Menarche occurred at an average age of  $13.86 \pm 1.8$  years. Menarche began at the age of 11 and ended at the age of 18. The average age of menopause was  $46.3 \pm 4.31$ . The average age of menopause was 32 years, with a maximum of 51 years. The average reproductive age in this study was  $29.05 \pm 2.6$  years. Only 5% of the patients had a family history. The average number of months spent breastfeeding was  $36.41 \pm 5.62$ . (see table 4) Figure 1 depicted the distribution of breast cancer patients by parity (no of children a woman had). Women with two children made up 33% of the total, which was a significant contribution. Women with three children accounted for 31% of all women, whereas women with four children accounted for 22% of all women. Women who had only one kid contributed 14 percent of the total. A modified radical mastectomy was provided to 51% of patients, while total mastectomy was offered to 23%. Adjuvant chemotherapy with cyclophosphamide, doxorubicin, and 5-fluorouracil was started for all of the patients who were operated on, however, compliance was poor due to financial issues. Because the receptor status could not be confirmed, patients have been routinely prescribed tamoxifen.

**Table1: Distribution of patients according to symptoms in breast cancer**

Sr no	Symptoms	Patients	Percentage
1	Lump in breast	100	100
2	Lump with pain	21	21
3	Lump nipple discharge	02	2

**Table2: Distribution of patients according to histological type for breast cancer**

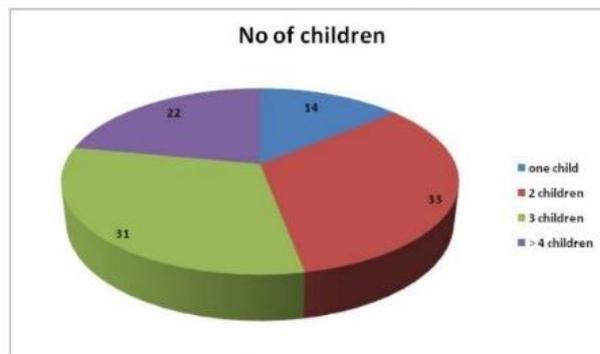
Sr no	Histological type	Patients	Percentage
1	In filtrating duct	97	97
2	Paget's disease	02	2
3	Medullary carcinoma	01	1

**Table3: Distribution of patients according to staging for breast cancer**

Sr no	Staging	Patients	Percentage
1	Stage I	23	23
2	Stage II	56	56
3	Stage III	12	12
4	Stage IV	09	9

**Table 4: Distribution of patients according to risk factors for breast cancer**

Sr No	Risk factors no	Total	Min	Max	Mean
1	Age (years)	100	28	67	52.21±4.6
2	Age at Men arche (years)	100	11	18	13.86±1.8
3	Age at men opause (years)	74	32	51	46.3±4.31
4	Reproductive Age(years)	74	19	36	29.05±2.6
5	Family history	100	5	5	
6	Total months of breast feeding	94	02	60	36.41±5.62

**Figure 1: Distribution of patients according to no of children(parity)**

## DISCUSSION

All of the patients had a lump in their breast (100 percent). A lump with pain was reported by 21% of patients, while a lump with nipple discharge was reported by 2%. Due to the lack of symptoms, early breast cancer may go undetected. However, when the tumour grows in size, patients will notice a lump or swelling in their breast, as well as pain, dimpling, and skin ulceration. The most common histological type was infiltrating duct carcinoma (97 percent), followed by Paget's disease (2 percent). Ntkem et al [9] and Kakarala et al [10] reported similar results. In our study, the majority of the patients were in stage II (56%) followed by stage I (23%). Anyanwu in Nnewi [11], Nigeria, reported 3% stage 1, 24% stage 2, and 72% advanced stage (68 percent stage 3 and 4% stage 4), whereas Ntekim et al. [9] in Ibadan, Nigeria, reported 2% stage 1, 13% stage 2, and 86% late stage (46 percent stage 3 and 39 percent stage 4). Raina et al [12] came to similar conclusions. In contrast to our findings, Mohite et al [13] discovered that 71.35 percent of women with breast cancer presented in a late stage at the time of diagnosis. Other research in India [14,16] came up with similar results. The average age of the patients in our study was 52.21±4.6 years, with a range of 28 to 67 years. Siddique et al [17] (48 years), Shilpa Asegaonkar et al [18] (48.2 years), and Pakseresht et al [19] found similar results (47.73 years) [19]. The average age at menarche in our study was 13.86±1.8 years. Menarche began at the age of 11 and ended at the age of 18. Early age during menarche is linked to an increased risk of breast cancer, according to similar results. [17] For each year of menarcheal delay, the risk of developing breast cancer later in life is reduced by 5% to 15%. [20,21] The average age at menopause in our study was 46.3±4.31 years. The average reproductive age in this study was 29.05±2.6 years. Similar findings were seen in other studies, with Pakseresht [19] et al in Delhi in 2006 reporting a mean age of menopause of 44.92 years. Breast cancer risk is 15-50 percent lower in postmenopausal women than in premenopausal women of the same age and childbearing status. [22] This could be linked to a lifetime of elevated hormone exposure, such as oestrogen and progesterone. [23] As a result, it appears that the overall duration of menstrual life is a significant determinant in the chance of getting breast cancer. Only 5% of the

patients had a family history. The average number of months spent breastfeeding was  $36.41 \pm 5.62$ . Lactation has been reported as a protective factor for breast cancer in several studies conducted around the world [24], and the collaborative group on hormonal factors in breast cancer 2002 [25] suggested that when compared to women who had breastfed for more than 18 months, women who had breastfed for less than 6 months had a more than 11fold significant risk of breast cancer.

## CONCLUSION

The importance of screening in the early diagnosis of cancer cannot be overstated. Women who have one or more of the risk factors should pay extra attention to their breast cancer screening. Breast cancer prevention is best achieved by starting a family early and breastfeeding for a longer period of time.

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