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Original Article

Pathologic findings of patients with breast cancer in Bandarabbas (southern Iran) during 2002-2010

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ABSTRCT

Introduction: Breast cancer is the most common cause of Cancer-related death among women. The aim of this study was to assess the pathologic findings of patients with breast cancer who were referred to the pathology ward in Bandarabbas during 2002 to 2010.

Methods and Materials: In this descriptive study in 2010, all patients with breast cancer who were referred to the pathology ward of Bandarabbas during 2002 to 2010 were included. Data was obtained using patients' records in the pathology ward and was collected by using a previously structured checklist including demographics such as age, sex as well as information regarding histology, histology grade, size and location of the tumor. Data was analyzed after collection using SPSS 13.0 for Windows software.

Results: Among the patients 73 (92.4%) were female. The mean age of the patients in our study was 52.38±14.27 years. Thirty (44.8%) were infiltrative ductal carcinoma and 26 (38.8%) were invasive ductal carcinoma. Histologic grade I was found in 10 (20.8%) patients, grade II in 24 (50%) and grade III in 14 (29.2%) patients. Skin was involved in 11(13.9%) cases. Vascular and neural involvement was seen in 16 (20.3%) and 6 (7.6%) patients respectively. Regional lymph nodes were involved in 32 (40.5%) of the patients. Far metastasis was seen only in 1 (1.3%) patient.

Conclusions: Referral of the patients in late stages of their disease which is associated with vascular, skin and nipple involvement and also regional lymph node involvement indicated a lack of enough knowledge about the disease.

Keywords: Breast Neoplasms, Ductal, Carcinoma

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Introduction:

Breast cancer is one of the most prevalent cancers (1) and is the most common cause of Cancer-related death among women (2). The incidence of breast cancer is 22 in 100000 in Iran (3). The average age of patients diagnosed with this disease in Iran is 10 years younger than other countries (4). Early diagnosis and treatment affects the prognosis of these patients (5). Despite the progress in treatment options for these patients, the most important predictive factor of the prognosis of these patients is the pathology report of the tissues taken at the time of the diagnosis and the patients' mortality depends on the stage of the tumor at the beginning of the diagnosis (6). Previous studies in Iran showed that more than 85% of breast cancer patients are detected in Grade II or III of the disease (6). Also, this disease is more frequent in 31 to 40 year old patients. Although it has been shown that in some cases the pathology reports are not complete (1), the pathologic findings reveal the stage of the disease at the beginning of the diagnosis. Late referral of patients in higher stages of the disease causes bad prognosis even with an accurate diagnosis and suitable treatment and it is associated with a great mortality rate. The pathology report at the beginning of the diagnosis shows the prevalence of late referral (8). The aim of this study is to assess the pathologic findings of patients with breast cancer who were referred to the pathology ward of Shahid Mohammadi hospital during 2002 to 2010.

Methods:

This descriptive study was conducted in Bandarabbas (southern Iran) in 2010. All patients with breast cancer who were referred to the pathology ward in Bandarabbas during 2002 to 2010 were included in our study. After exclusion of the patients with incomplete records, 79 patients were enrolled in our study.

Bandarabbas is located in the Hormozgan province in southern Iran and is the capital city of Hormozgan. Data was obtained using patients' records in the pathology ward and was collected using a previously structured checklist including demographics such as age and sex and also information regarding the histology, the histology grade, the size and the location of the tumor. Data was analyzed by SPSS 13.0 software for Windows. Descriptive statistics such as frequency was used for sex, histology grade (I, II, III), tumor location and vascular, neural, skin or nipple involvement. For quantitive variables such as age and tumor size, mean and standard deviation were assumed.

Results:

Among all the patients, 6 (7.6%) were male and 73 (92.4%) were female. The mean age of the patients in our study was 52.38±14.27 years. The mean tumor size was 80.48±90.89 mm^2. All the histology types were ductal carcinoma. Thirty (44.8%) were infiltrative ductal carcinoma and 26 (38.8%) were invasive ductal carcinoma. Histologic grade I was found in 10 (20.8%) patients, grade II in 24 (50%) and grade III in 14 (29.2%) patients.

The tumor was in the right breast in 13 (32.5%) patients and in the left breast in 26 (65%) patients and in both breasts in 1 (2.5%) patient.

Deep resected margin was seen in 11 (13.9%). Nipple involvement was seen in 11 (13.9%). Also skin was involved in 11 (13.9%) cases. Vascular and neural involvement was seen in 16 (20.3%) and 6 (7.6%) patients respectively. Regional lymph nodes were involved in 32 (40.5%) of the patients. Far metastasis was seen only in 1 (1.3%) patient.

Conclusion:

Our study results showed that approximately 80% of patients were in grade II or III at the beginning of the diagnosis. These results are similar to other studies in Iran:

In a study in Emam Khomeini hospital, nearly 80% of the patients were at grade II or III of their disease. The percentage of patients in grade III was higher in our study (7). Although this study was performed on patients with breast cancer in a 3 years period, the number of the samples studied was higher than this study.

One of the other advantages of this study was that in this study the pathology slides of the patients instead of their pathology reports were reviewed. This may reduce the possibility of the mistakes. Since our study was record based, some patients were excluded from the study due to incomplete records. Also, the diagnosis of disease was based on the pathology report at the time of the patient's referral. This may limit the generalizability of our study results.

In our study, regional lymph node involvement was seen in 40.5% of the patients. Jamali et al. found that the possibility of lymph node involvement will increase in higher stages of the disease and all patients in grade III of the disease had axillary lymph node involvement (7).

In our study, nipple and skin involvement was seen in 13.9% of the patients. Also, vascular involvement was seen in 20.3% of the patients. This is indicative of late referral of the patients. This problem may have different causes. Previous studies in Iran showed that one of the most important causes of the late referral of the patients is lack of enough knowledge (8). Although some concerns remain about the role of Breast Self-Examination (BSE) in decreasing the mortality of women related to breast cancer (9, 10), their knowledge about the breast mass that may be found accidentally is valuable.

Referral of patients in the late stages of their disease which is associated with vascular, skin and nipple involvement and also regional lymph node involvement is indicative of lack of enough knowledge regarding the disease.

Effective interventions should be considered to increase the women's knowledge about breast cancer. We recommend prospective studies using pathology slides to evaluate the grade of the disease.

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