Original Article

Clinical features and prognostic factors of breast cancer in Jordan

Ali Al Obose, Osama Abu Salem, Maysoun Alrabayha, Khalid Alghzawi.

From Royal Medical Services Hospital, Jordan.

Correspondence: Dr: Osama Abu Salem, P.O.Box: 62003, Irbid- Jordan
E-mail:osamaabusalem@hotmail.com

Received: November 12, 2006 Accepted:

Abstract

Objective: To analyze the clinical presentation and outcome of Jordanian patients with breast cancer.

Materials and Methods: Data from 184 patients registered and treated at different Royal Medical Services Hospitals in Jordan from January 2002 to December 2005 were analyzed. The variables noted included age, site, lymph nodes status, grade and type of the breast cancer found.

Results: The median age was 52.5 years and 54% patients were pre-menopausal. Ninety-six per cent patients presented with a lump and majority (86.4%) had a lump size > two cm. Stage 1 was found in 7.6%, Stage 2 in 60.3% and Stage 3 in 32.1% patients. Right breast was involved in 50.5%, left breast in 48.9% and one case had a bilateral involvement. Most patients were prescribed Tamoxifen for 5 years.

Conclusions: Many patients with breast cancer presented in late stages with large lumps. Thus, breast cancer prognosis in Jordan remains poor primarily due to late diagnosis. (Rawal Med J 2007;32:50-52)

Key Words: Breast, cancer, nodes.

INTRODUCTION

Breast cancer is the most common cancer and the second leading cause of cancer death among women in general; annual breast cancer deaths are exceeded only by those for lung cancer.[1] The traditional diagnostic approach to breast lumps include physical examination, ultrasounds, mammogram screening and cytology. Late diagnosis is a major factor for increased mortality as the majority of the patients present in advanced or metastatic stage. This is primarily attributed to lack of access to medical facilities, virtually non-existent breast cancer screening programs, lack of awareness and social-cultural attitudes. A recent meta analysis of the breast cancer screening trials indicates that screening reduces the mortality rate by approximately 25%.[2] Since data on the clinical profile of breast cancer from Jordan is scant, the aim of this study was to analyze the clinical presentation and outcome of Jordanian patients with breast cancer.

MATERIALS AND METHODS

Data from 184 patients registered and treated at different Royal Medical Services Hospitals in Jordan from 2002 through 2005 were analyzed. The age, site, lymph nodes status, grade and type of the breast cancer were noted. Early Breast Cancer (EBC) was defined as tumors of less than five cm (T1, T2), with either impalpable (N0) or palpable (N1) but not fixed lymph nodes with no evidence of distant metastases (M0), corresponding to Stages I. Patients with tumors more than five cm (T3) were included if they had N0 M0 disease, Stage IIb. All EBC cases with pathological confirmation either by fine needle aspiration cytology or core biopsy and who had been treated by at least one mode of treatment (surgery, chemotherapy or

radiotherapy) were included in the analysis. All patients were followed up every three months after discharge from the hospital following the initial treatment.

RESULTS

The median age was 52.5 years. 54% patients were pre-menopausal, 5% had unknown menopausal status and 41% were menopausal. Ninety-six per cent (177/184) patients presented with a lump. Fourteen patients (7.6%) presented Stage 1, 111 (60.3%) in Stage 2 and 59 (32.1%) in Stage 3 (table 1). Right breast was involved in 93 (50.5%), left in 90 (48.9%) and one patient had a bilateral involvement. Most patients were prescribed Tamoxifen for 5 years.

Table 1. Patient and tumor characteristics (N=184)

Characteristic	No. of patients
Age, mean (range)	52.5y
Primary tumor stage	
Tx	1
Tis (± microinvasion)	11
T1	78
T2	55
T3	23
T4	16
Pathologic nodal stage	
N0	64
N1	120
No. Of nodes recovered, mean (range) a	18 nodes
Method of diagnosis	
Fine-needle aspiration	29

Core needle biopsy	140
Excisional biopsy	21
Incisional biopsy	4
Interval between Breast and axillary ultrasonography+ /- mammography and surgery	
<1 mo	164
1 < 3 mo	13
3 < 6 mo	7

A Data from 184 patients with complete axillary dissection.

Median age at menarche was 14 years (range 12-17 years) and that of menopause 46 years (36-56 years). 177 (96%) patients presented with breast lump, the majority (86.4%) with a lump size > two cm. 77 (15.8%) had pain and 24 (4.9%) had nipple discharge, in addition.

All patients underwent surgery; either a breast-conserving surgery (BCS) was carried out or simple mastectomy with axillary clearance. Invasive ductal carcinoma was found in 151 (82.1%) patients followed by invasive lobular carcinoma in 18 (9.7%), mixed type 12(6.5%) and medullary carcinoma in three (1.6%).

Table 2: Lymph Nodes Status in patients with breast cancer

Years	2002	2003	2004	2005	Total
Positive LN	22	33	42	23	120
Negative LN	9	20	17	18	64

Adjuvant radiotherapy was given to some patients; indications included T3 tumor size, ≥ 4 positive axillary nodes (Table 2), positive margins, and BCS. Chemotherapy was administered to other women. Most of the patients were given CMF regimen.

DISCUSSION

Breast cancer was usually self-diagnosed and tumors were > 2 cm at presentation in some of our cases, suggesting the possibilities of a delay in diagnosis, more aggressive tumors or both. Menopause did not seem to have any effect on breast carcinoma as evidenced by steadily rising rates at all ages. Three known causes of human breast cancer, ionizing radiation, exogenous ovarian hormones and alcohol, offer some preventive possibilities but do little to explain the epidemiologic features of the majority of cases of the disease that occur in their absence.[3]

Breast carcinoma is an unpredictable disease as it may present with relatively early disease and patients may die widespread metastases within six months to one year, while others present with fairy advanced disease and yet survive longer.[4] Age was an independent significant prognostic factor for relapse.[5] Tumor size, grade, race, and year of diagnosis all have significant constant effects on disease-specific survival in breast cancer, while the effects of age at diagnosis and disease stage have significant effects that vary over time.[6] Age does not provide independent prognostic information and should not be used alone for management decisions.[7]

Axillary ultrasonography is increasingly being used to improve the staging of breast cancer patients who have negative axillary lymph nodes on physical examination.[8] This approach has a number of advantages. First, node-positive patients identified with ultrasonography can be referred for axillary dissection, without the need for sentinel lymph node (SLN) staging.[9] The probability of death from breast cancer

exceeded that from all other causes for patients diagnosed with localized disease before age 50 years, with regional disease before age 60 years, and with distant disease at any age.[10] There is little evidence that breast size is associated with breast cancer risk.[11]

In general, breast cancer is a major public health problem in Jordan. Late presentation is a major concern, as large numbers of early breast cancer patients are still diagnosed in clinical Stage 2. Education/awareness campaigns, improvement of socioeconomic conditions, better access to diagnostic resources, availability of higher standards of health care, use of breast self-examination, and screening mammography if implemented nationally would go a long way towards increasing early diagnosis and improved survival with a consequent possible rise in incidence of early cases as is happening in the West.

REFERENCES

1. Berg JW, Hutter RV. Breast cancer. Cancer. 1995;75(1 Suppl):257-69.

2. Jatoi I. The case against mammographic screening for women in their forties. In Jatio I (ed.): Breast Cancer Screening Austin, TX, Landes Bioscience, pp 35-49, 1997.

3. Macmahon B. Epidemiology and the causes of breast cancer. Int J Cancer. 2005; 15;2373-2378.

4. Gogo-Abite M, Nwosu SO. Histopathological characteristics of female breast carcinomas seen at the University of Port Harcourt Teaching Hospital. Niger J Med. 2005;14:72-6.

5. Yildirim E, Dalgic T, Berberoglu U. Prognostic significance of young age in breast cancer. J Surg Oncol 2000;74:267-72.

6. Rosenberg J, Chia YL, Plevritis S. The effect of age, race, tumor size, tumor grade, and disease stage on invasive ductal breast cancer survival in the U.S. SEER database. Breast Cancer Res Treat. 2005;89:47-54.

7. Crowe, Gordon NH, Shenk RR, Zollinger RM Jr, Brumberg DJ, Shuck JM. Age does not predict breast cancer outcome. Arch Surg 1994;129:483-7.

8. Herrada J, Iyer RB, Atkinson EN, et al. Relative value of physical examination, mammography, and breast sonography in evaluating the size of the primary tumor and regional lymph node metastases in women receiving neoadjuvant chemotherapy for locally advanced breast carcinoma. Clin Cancer Res 1997;3:1565–9.

9. De Kanter AY, van Eijck CH, van Geel AN, et al. Multicentre study of ultrasonographically guided axillary node biopsy in patients with breast cancer. Br J Surg 1999;86:1459–62.

10. Schairer C, Mink PJ, Carrll L.Devesa SS. Probabilities of death from breast cancer and other causes among female breast cancer patients. J Natl Cancer Inst.2004; 96: 1311-21

11. Wies HA, Devesa SS, Brinton LA. Laterality of breast cancer in the United States. Cancer Causes Control. 1996;7:539-43.