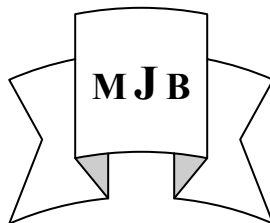


Descriptive Study of Breast Cancer in Missan (South of Iraq)

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Abstract

Breast cancer, is the most common cancer and most common cause of death in middle aged women. This was a descriptive study conducted over period of four years ,from July 2005 to July 2009, in surgical unit, Al-Sadder general hospital, Missan , south of Iraq. A total 144 patients were included in this study , 143 female and 1 male patient. The most common age group was above 50 years with 54 cases (37.5%) followed by 40-49 years age group with 43 cases (29.9%), 15 patients (10.5%) have family history of malignant disease. Ten patient have history of breast cancer, while the other 5 (3.5%) have positive family history of other malignancy. 128 were married (119 have history of pregnancy and 9 patients were nulliparous). 15 of cases were single. 83 patients (57.6) % were living in the urban while 61(43.4%) were living in the rural area, statistically there was no significant difference between these groups ($p > 0.05$). Most of our patients were of low socio-economic state, with low level of education. Breast lump is the common presenting symptom of breast cancer(84%), Infiltrating ductal carcinoma was the commonest pathological type, found in 123 patients (91.6%) . 70% of the patients were in stage III & IV.

دراسة وصفية لسرطان الثدي في محافظة ميسان (جنوب العراق)

يعد سرطان الثدي من الأورام الخبيثة الشائعة في العالم. أعدت هذه الدراسة خلال (٤ سنوات) للفترة الممتدة من تموز ٢٠٠٥ إلى تموز ٢٠٠٩ في مستشفى الصدر العام. تشمل هذه الدراسة ١٤٤ حالة مرضية مصابة بسرطان الثدي ١٤٣ مرضية ومريض واحد. أكثر الإصابات كانت الفئة العمرية أكثر من (٥٠ سنة) ٥٧% في مركز المدينة (حضرية) ٤٣% في المناطق الريفية ، ٩٣,٧% متزوجات ومعظم الحالات ٨٨,٨% من ذو الدخل المحدود والغير متعلمين ، كتلة الثدي شكلت ٨٤% من الاستعلان السريري. النمط النسيجي الرئيسي كان سرطان الغدد الثديية بنسبة ٩١,٦% أن ما يقارب ثلثي (٧٠%) من المريضات استعلم عندهن المرض في مراحل متقدمة ٦١% في المرحلة الثالثة و ٩% في المرحلة الرابعة . التغيرات الباثولوجية (Grading) للخلايا السرطانية معظمها من الدرجة الثانية بنسبة ٦٤,٥% من خلال هذه الدراسة يجب العمل على تفعيل برنامج الكشف المبكر عن أمراض الثدي.

Introduction

Breast cancer, is the most common cancer and most common cause of death in middle aged women. It is a very common disease in the western world [1]. It occurs more commonly in women with a family history of the disease. Specific mutations are responsible for 5% of the breast cancers. High intake of alcohol and diets

low in phytoestrogen are directly related to breast cancer. It is more common in nulliparous and late menopause while breast feeding appears to be protective. In western countries the disease occurs more commonly in those women belonging to higher socioeconomic class while women with low socioeconomic class present with late stage of the disease [2,3]. Infiltrating ductal

carcinoma is the most common type of invasive breast cancer, accounting for 65% to 80% of invasive breast lesions[4,5], while invasive lobular carcinoma constitute the second most frequent type, account for approximately 5-10 % of invasive breast cancer [6,7]. Several histopathological features have prognostic significance in breast cancer like cancer subtypes, tumor grade, lymphovascular invasion, estrogen and progesterone receptor status, proliferation markers and DNA content, peptide hormones, growth factors and their receptors, oncogenes, and tumor suppressor genes[8]. The data were analyzed using SPSS version 16 and Chi-square test at 95% confidence level.

Objective

Our study aim to evaluate the pattern of breast cancer in Missan (the south of Iraq).

Patient and Methods

This was a descriptive study conducted over period of four years

,from July 2005 to July 2009, in surgical unit, Al-Sadder general hospital, Missan, south of Iraq. In this duration the data of 144 patients were collected by direct interview with breast cancer patients and from the records and registrations of the oncologist and pathologist. Patients age, sex, social state, proper history of disease and investigations results were recorded. The diagnosis is confirmed by cytology (F.N.A.C.) and or tissue biopsy inform of core or excisional biopsy. Breast cancer is staged according to the TNM classification (T tumor size, N nodes M metastasis).The TNM classification is based on clinical & histological assessment following definitive surgery. Liver ultra-sound ,chest x ray, full blood count and CT scan used in assessment of the staging system. We exclude the patients with incomplete records ,registrations and follow up.

Results

A total of 144 patients were included in this study, listed in the Table 1.

Table 1 Sex distribution.

Sex	Number of patients
Female	143
Male	1

The most common age group was above 50 years with 54 cases (37.5%) followed by 40-49 years age

group with 43 cases (29.9%), as shown in table 2.

Table 2 Distribution of breast cancer patients with different age groups

20-29yr		30-39yr		40-50 yr		Above 50		total
No.	%	No.	%	No.	%	No.	%	
12	8.3	35	24.3	43	29.9	54	37.5	144

In this study 15 patients (10.5%) have family history of malignant disease. Ten patient have history of breast cancer, while the other 5 (3.5%) have positive family history of other malignancy. 128

were married (119 have history of pregnancy and 9 patients were nulliparous).15 of cases were single, as listed in table 3

Table 3 Association between breast cancer and risk factors

Parameter	No.	Percentage %
Family history of breast cancer	10	7
Family history of other malignancy	5	3.5
Early menarche	2	1.3
Late menopause	3	2
Nulliparous	9	6.3
Unmarried	15	10.5
History of contraceptive pill more than 10 year	2	1.3
History of exposure to radiation	0	

83 patients (57.6%) were living in the urban while 61(43.4%) were living in the rural area, statistically there was no significant difference between these groups ($p > 0.05$) as depicted in table 4.

Table 4 Residency of the patients

Residency	Number	Percentage %
Urban	83	57.6
Rural	61	43.4

Most of our patients in this study were of low socio-economic state, with low level of education.

Table 5 Socio-economic state

Socio-economic state	Number	Percentage %
High socio-economic state	16	11.2 %
Low socio-economic state	128	88.8 %

Breast lump is the common presenting symptom of breast cancer (84%), followed by symptoms, and sign

Secondary to distant metastasis (9%), as shown in table 6.

Table 6 Presenting of symptoms

Parameters	No	Percentage %
Breast lump	112	84.7
Breast skin ulcer	6	4
Breast abscess (pain)	4	2.7
Eczematous changes of the nipple	4	2.7
Bloody nipple discharge	3	2
Axillary mass	2	1.38
Symptoms & sign secondary to distant metastasis	13	9

Infiltrating ductal carcinoma was the commonest pathological type, found in 123 patients (91.6%) out of a total of 144 cases. Other types included 4 cases (2.7)% Paget's disease of the nipple, 4

cases inflammatory carcinoma as shown in table 7. While, Stages in which disease presented were illustrated in table 8.

Table7 Histological type of breast cancer

Histological type	No	Percentage %
Invasive ductal carcinoma	132	91.6
Paget's disease of the nipple	4	2.7
Inflammatory carcinoma	4	2.7
Invasive lobular carcinoma	2	1.38
Sarcoma	1	0.6
Lymphoma	1	0.6
Noninvasive (carcinoma insitue)	0	0

Table 8 Pathological staging at time of presentation

Histological type	No	Percentage %
Stage I	9	6
StageII	34	23.6
StageIIIA	51	35.4
StageIIIB	37	25.6
Stage IV	13	9

From table 8, we notice that (61%) of patients were in stage III, (35.4%) in stage IIIA and (25.6%) in stage IIIB, stage II 34 (23.6%) and stage I.

There were 12 (8.3%) cases of grade I, 93(64.5%) cases of grade II and 39 (27%) cases of grade III.

Table 9 Grading of the breast cancer

Grade	No	Percentage %
Grade I	12	8.3
Grade II	93	64.5
Grade III	39	27

Table 10 Association between grading, staging at different age groups

Grade	Age(20-29)	30-39	40-49	Above 50	Total
Grade I	0	2	4	6	12
Grade II	7	24	27	35	93
Grade III	5	9	12	13	39
Total	12	35	43	54	144
Stage	Age(20-29)	30-39	40-49	Above 50	Total
Stage I	2	2	4	1	9
Stage II	3	6	9	16	34
Stage IIIA	4	10	14	18	46
Stage IIIB	2	15	11	14	42
Stage IV	1	2	5	5	13
Total	12	35	43	54	144

Discussion

Breast cancer incidence and mortality are increasing in developing countries[9,10]. It's the most common malignancy among Iraqi women and comprises more than 30% of the registered female cancer (according to Iraqi cancer registry), and tend to affect young age group[11]. The obvious rise in incidence rates and the prevalence of advanced stages at presentation associated with more aggressive tumor behavior resulting in greater fatality rates [12]. In this study the most common age group was above 50 years with 54 cases (37.5%) followed by 40-49 years age group with 43 cases (29.9%), this picture was similar to that displayed in reports from western and developed countries [13], in addition to that the incidence of breast cancer in adult female increased, in our study 62.5% of cases from 20-50 years and this comparable to the Iraqi cancer registry and other neighboring countries [14-16]. Invasive ductal carcinoma is the most common histological type and invasive lobular carcinomas constitute (5-10%), in most series its represent the second most frequent type of invasive breast cancer[4,17-19], in comparison to our

study the invasive ductal carcinoma was the most common type account for (91.6%), followed by paget's disease of the nipple and inflammatory cell carcinoma were they account (2.7) for each one, while invasive lobular carcinomas constitute (1.38 %). The incidence of carcinoma insitue in this study was zero in comparison to (20-25%) of breast cancer can be detected as carcinoma insitue in simple and ordinary mammographic screening programs[20,21]. Regarding the stages in which disease presented included stage I (6%), stage II (23.6%), stage III (61%) and stage IV (9%). This means that most of breast cancer patients in our study presented at a late stage (70%), in comparison to Many other International studies conducted in USA, Malaysia, Germany and India have shown that breast cancer is detected more commonly in the earlier stages due to better screening programs[22-26]. Stage III breast cancer account for about 6-7% of all invasive breast cancer diagnosed annually in the United State. In African American women the incidence of stage III breast cancer is almost double that in Caucasian women[27], while in our study we notice

that the percentage of stage III was 61% and this due to unsuccessful screening programs and 128 of our patients (88.8%) at low socio-economic state.

Conclusions

Invasive ductal carcinoma of the breast is a common problem presenting at middle and old age patients. The majority of our patients in this study were presented at late stage due to lack of proper screening programs and low socio-economic state of the patients, which demand more effort for early detection of breast cancer.

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