FIVE YEAR SURVIVAL IN PATIENTS WITH BREAST CANCER A STUDY CARRIED AT THE ONCOLOGY CENTER OF BASRAH

Jawad K. AL-ALI, Salim L. AL-Saad

ABSTRACT

Objectives: The aim of this work was to determine the five years survival of patients with breast cancer attending the Oncology Center of Basrah between October 1999 and December 2001.

Methods: Three hundred eight patients attending the Oncology Center for registration and treatment during the years 1999- 2001 were studied and the status of each whether alive or dead was ascertained after one year and five years.

Result: Among 308 patients, 5 were males, 68.16% were in advanced stage (i.e. stage 2-4) and 5 years survival was (25.24 %).

Conclusion: Five years survival of breast cancer in Basrah is low. This needs the adoption of wide scale screening program to help early detection and to review the care and modalities of treatment to improve the outcome.

INTRODUCTION

Breast cancer is the most common cancer in woman in United States and is the most common cause of death from cancer in woman worldwide. Its incidence rate is high in the more developed and industrialized countries, but less in African and Asian countries. The incidence rate in Western countries is >100/100000 and in Asian countries the incidence rate is between 10-15/100000.[1] In Basrah, breast cancer constitutes one third of all cancers in woman with incidence rate of 13.1/100000 women.[2] The annual mortality rate of breast cancer in Basrah in 2005 is 3.2 per 100000,[3] whereas in Mosul, the incidence rate of breast cancer is 12.5 /100000 and the death rate is 6/1ooooo.[4] The above result of incidence rate looks low when compared to the incidence rate of Western countries. This is attributed in part to improper registration and the lower risk profile in Basrah. The life time risk for female breast cancer in USA, ranges between 1:252 at the age of 30-45 years and 1: 8 at the age of 110 years.[5] Premenapausal breast cancer rates are similar in Asian and western countries.[6] A number of factors are known to increase the risk of breast cancer such as: female sex, increasing age, early menarche, late menopause, obesity, postmenapausal hormonal therapy, benign proliferative breast disease, ionizing radiation, lastly germ line mutation such as BRCA1, BRCA2, P35 and PTEN. [7,8]

METHODS

Medical records of patients with breast cancer registered and treated in Oncology Center of Basrah during the years 1999, 2000 and 2001 were retrospectively studied and followed for five years. Data including patients age, sex, stage of disease and modality of treatment were observed investigated. Deaths were ascertained through either direct follow up, or from death registration office.

RESULTS

Patients included in this study were 308, 5 were males which constituted (1.6%), and 303 (98.3%) were females (Table-1).

Table 1. Sex distribution of breast cancer (1999-2001)

Years	Male	%	Female	%	Total
1999	1	1.19	83	98.80	84
2000	2	1.73	113	98.29	115
2001	2	1.83	107	98.16	109
Total	5	1.6	303	98.31	308

Table-2 shows the total number of patient and their age distribution. The number of patients at the age (15-24 years) were 1 (0.32%), at the age of (25-34 years) were 38 (12.33%), at the age (35-44 years) were 82 (26.6%). Also the table shows the peak incidence was at the age of (45-54 years) with 113 (36.6%) cases reported, then the number decreases with advanced age (75-84 years) only 6 (1.9%) were recorded. Whereas (Table-3) revealed. Total number of registered cases during 1999 were 84. Those who remained alive after one year were 37 patients

Director of the Oncology Center / Basrah Teaching Hospital
Internists / Basrah Teaching Hospital

and their survival rate was 44.04, and those who survives five years 22 patients, with a five year survival rate of 26. 19. Those who discontinue attendance were 8(9.5) patients, while patients who survive less than one year were 17. In the year of 2000 one year survival rate was 59.13 and five years survival rate was 19.13. In 2001 total registered cases were 109, one year survival rate was 51.37, and five years survival rate 31.19. Whereas defaulters were 5(4.5). The total number of patients remained alive after one year were 161. one year survival rate was 52.5, and who remained alive after five years were 78 with a five years survival rate was 25.24. while those defaulted were 18(5.8).

Table 2. ***Age distribution of breast cancer cases (1999-2001)***

Years	Age								Total patients
	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-94	
1999	0	9	25	26	13	8	3	0	84
2000	1	20	30	40	15	7	2	0	115
2001	0	9	27	47	21	4	1	0	109
Total	1	38	82	113	49	19	6	0	380
%	0.32	12.33	26.6	36.6	15.9	6.16	1.9	0	100%

Table 3. ***Five years survival rate of breast cancer during 1999-2001,at Basrah Oncology Center***

Years	No. of registered cases	No. of cases remained alive after one year	0ne year survival rate	No. of cases remained a life after five years	Five years survival rate	Unkown fate(defaulters)
1999	84	37	44.04	22	26.19	8 (9.5)
2000	115	68	59.13	22	19.13	5(4.3)
2001	109	56	51.37	34	31.19	5(4.5)
Total	308	161	52.5	78	25.24	18(5.8)

Table-4 shows that 43 patients (57.14%) from the total patients of the year 1999 were not staged. The number of un staged patients were less in the following two years (2000-2001), (14.7%) and (8.3%) respectively. This indicates improvement and cooperation between Surgeon, Pathologist and Oncologist. Patients in stage 1 were (3.8%), (6.08%) and (17.4%) for the years 1999, 2000 and 2001 in that order, and the same table shows that 38 patients from the total 84 in 1999, 91 patients out of 115 in 2000 and 81 patients out of 109 in 2001 were in advanced stage at presentation (ie: 45.2%, 79.13%,74.3%) respectively. That means that 210 patients from the total were in advanced stage (stage 2-4) when first seen.

Table 4. Stage distribution of breast cancer(1999-2001)

Years	Total patient	Stage 1		Stage 2- 4		Unstage	
		No.	%	No.	%	No.	%
1999	84	3	3.8	38	45.2	43	57.14
2000	115	7	6.08	91	79.13	17	14.7
2001	109	19	17.4	81	74.2	9	8.3
Total	308	29	9.4	210	68.16	69	22.4

DISCUSSION

This study reveals that the incidence of breast cancer in Basrah is low under the age of 25 years (ie: 0.32%). In some European studies no cases recorded below that age.[9] Peak incidence was at the age of 45-54 years 113 cases were recorded, but the number decreases with the advancing of age. Six cases were recorded at the age 75-84 years. This decrease may not be real

because it is not population adjusted. In some European statistics, the peak incidence is at the age of 50-54 years so that the peak incidence in this study is lower than western countries, but this point needs to be confirmed by extending the duration of the study, so increasing the number of patients. The survival rate was low regardless the stage of the disease, hormone receptor status and treatment modality. One year survival rate was 52.5 and five years survival was 25.24, if we consider those who defaulted are all alive after five years, then the five years survival rate will be 31.04. It is known that increasing size of the primary tumor is inversely related to the disease free survival, and overall survival rates.[10] Five years survival for those with tumor size more than 5 cm is 55%, the number of axillary lymph node involvement is another predictor to adverse prognosis and five years survival. In negative node patients is (78-92%), and (32-57%) in patients with more than 4 lymph nodes involvement.[11,12] glandular breast tissue is identical in male and female. Male breast cancer in this study was (1.6%). In some of statistics, it is accounting for (0.2%) of all male cancer and about (1%) of all new recorded breast cancer.[13,14] Overall low survival rate in this study can be attributed to many factors, of these unavailability or insufficient chemotherapy or radiotherapy, and interrupted courses because of social, political and economic instability. In addition, more than half of the patients (68.16%) are in advanced stage (stage 2-4) when first seen. Another finding is that 18 patients (5.8% of total) stop attending the center (defaulter) probably due to social and personal difficulties. All these factors may contribute to the low five years survival rate of our patients.

In conclusion

- The study shows low incidence rate of breast cancer which is comparable to the incidence in Asian countries. The low incidence may be partially due to defective registration.
- Considerable number of patients are defaulters which might affect the number of survivals and mortality rate.
- No screening program is in work (clinical or laboratory), so high percentage of patients are in advanced stage when first seen.
- Staging of breast cancer improved successfully in the years 1999, 2000, 2001.

REFERENCES

1. **Key TJ, Verkasalo PK, Banks E. Epidemiology of breast cancer. Lancet Oncol 2001; 2:133-140.**
2. **Habib OS, Al-Ali JK, Mohamad K, Narjis AA(eds.). The Breast Cancer in Basrah 2005. WWW.basmedcol @yhoo.com, first report.**
3. **Essa SS. A study on cancer mortality in Basrah. A thesis for the degree of fellowship of Iraqi Board for Medical specialization in Family Medicin. 2007. College of Medicine, university of Basrah.**
4. **Ismail AM, AL-Ramadhani AH, 2001. Cancer in Mosul. Incidence and mortality 2000. first edition, Directorate of Health in Ninawa Mosul Continuing Medical Education Center.**
5. **Cancer Fact and Figures. Atlanta, GA: American Cancer Society 1999.**
6. **Genevieve C, Sherif O. Breast Imaging In: Breast Cancer. 4th ed. National Cancer Institute. Cairo University 2001; 57-71.**
7. **Meijers-Heijbo, H, Van den, OA, Klijn J. Low Penetrance susceptibility to breast cancer due to Chek 2 1100 delc in non carriers of BRCA1, or RCA2mutationsNat.Gent. 2003; 31:55-59.**
8. **Rossouw JE, Anderson GL. Risks and benefits of estrogen in healthy postmenopausal women. Principal result from women. Health Initiative Randomised Controlled Trial. JAMA. 2002; 137: 834-839.**
9. **Cancer in Finland 2002 and 2003. Finnish Cancer Registry Institute for Statistical and Epidemiological Cancer Research. Cancer Society of Finland 2005; 66:1-88.**
10. **Rosen PP, Groshen S, Kinne DW, Norton, L. Factors Influencing Node Negative Breast Carcinoma analysis of 767 Ti No Mo/ T_2 No Mo patient. J. Clin. Oncol. 1999; 11:2090.**
11. **Clark GM. Interpreting and Integrating Risk Factors for Patients with Primary breast Cancer. J. National Cancer Insit. Monogr .2001; 17-21.**
12. **Isaacs SC, Stearns V, Hayes DF. New Prognostic Factors for Breast Cancer Recurrence. Semin Oncology 2001; 28:53-67.**
13. **Evans DB, Crichlow RW. Carcinoma of Male Breast and Kline Felitter Syndrome : is that an association? CA cancer J. Clin. 1987; 13:246-251.**
14. **Donegan WL, Redlich DN, Lang, PJ. Carcinoma of Breast in Male: A multi-institutional Survey cancer. 1998; 83:498-509.**