ORIGINAL ARTICLE

Stages of Carcinoma Breast at Presentation in Rural Bangladeshi Women

AS Arif[1], MM Rahman[2]

[1]Abdus Salam Arif Associate Professor, Department of Surgery;
[2]M Mizanur Rahman, Medical Officer, District Hospital, Narsingdi

ABSTRACT

Carcinoma breast is the leading cause death from cancer in women between 20-59 years.. The slow natural history makes it a potentially curable disease if presented early. Unfortunately the rural women in Bangladesh frequently present with late carcinoma breast. The objective of this study is to find out the stages of the disease when presented for the first time to a qualified doctor. The study shows that about 43% of our womenfolk present with late stage when the prognosis in terms of survival rate is not so optimistic. Even when they present with early breast cancer, most of them are at stage II. There is scope to improve the scenario by educating them on screening of breast carcinoma by self examination, mammogeusly, avoidance of risk factors and advantages of FNAC & biopsy from any breat lump.

Key Words: Stages of Carcinoma Breast, Rural Bangladeshi Women, Screening & Self Examination of Breast

Introduction

Carcinoma breast is the most common site specific cancer in women and is the leading cause of death from cancer for women between 20-59 years. In USA, it accounts about 0.23 million new cases per year and 40 thousand death per year[1,2]. Women living in less industrialized countries tend to have a lower incidence of breast cancer excepting Japan. In general carcinoma breast incidence and mortality are relatively lower among females of Asia and Africa, underdeveloped nations and nations that have not adopted the westernized reproductive and dietary patterns[3].

The arbitrary description of the prognosis of carcinoma breast as a survival rate is somewhat unclear. The course of the disease is uncertain and survival even after the metastasis may be prolonged even without treatment. The natural history of carcinoma breast is normally characterized by a long duration but shows extreme heterogeneity between patients. It is generally assumed that it takes several years to develop a breast lump of 1 cm size. This natural history makes it a potentially curable disease. Though carcinoma breast is considered as a systemic disease at the time of diagnosis, most patients can be cured if detected early[3]. Therefore, it is very important to educate women to present early with suspected carcinoma breast.

Along with many other factors, the lymph node involvement and tumor size are the two important prognostic factors. Stages of carcinoma is the most reliable indicator of prognosis[3,4]. 5 years survivals are highly correlated with tumor stage; 95-100% for stage I, 86% for stage II, 57% for stage III and 20% for stage IV. This information can guide physician in making therapeutic decisions[5,6].

This study aims to find out the stages of carcinoma breast among rural women of our country when they seek advice from a qualified physician.

Patients and Methods

This prospective study was carried out from January 2001 to June 2009 at Narsingdi, Bangladesh. All the patients presented to the

principal author, who were diagnosed as patients with carcinoma breast either cytologically or histopathologically were included in the study. Those patients suspected of carcinoma breast but not proved on cytology or histopathology, were excluded from the study.

The stages were determined by the principal author himself. A through clinical examination was performed to determine the size of the primary lesion, invasion to local structures, involvement of axillary and other draining lymph nodes and to detect any metastasis. Mammography was performed only in equivocal cases. In obvious cases a direct or US guided FNAC were performed. On radiologically suspected cases US guided FNAC were performed. Histopathological examinations were done in all operated cases. Local invasions were confirmed at biopsies. Involved lymph nodes were biopsied. Axillary sampling were done in cases without palpable lymph node. USG was done in all cases to assess the size of the tumor and also to find out any lymph node involvement. Further extensive investigations were performed in only in cases suspected of metastasis.

Staging were performed using TNM system developed by UICC. For clarity and simplicity complicated subdivisions are avoided and results are expressed only in 4 main stages.

Results

A total of 64 patients were included in the study. All of them were clinically diagnosed as cases of carcinoma breast and later on confirmed by tissue diagnosis.

The size of primary lesions were assessed clinically and sonologically. Invasions into skin and/or skin and chest wall were confirmed on biopsy. Results are shown in Table-I.

Table I

T status Criteria	No of patients	% of patients
T_1 Less than 2cm in size	19	29.7
T_2 2 to 5 cm size	29	45.3
T3 More than 5cm	10	15.6
T_4 Chest wall/ skin fixed	7	10.9

The lymphatic status assessed clinically and sonologically and matched with histopathological findings are shown in Table-II.

Table II

N status	Criteria	No of patient	% of patients
N_0	No lymph node(LN) involved	17	20.6
N_1	Mobile ipsilateral axillary (ax) LN	26	40.1
N_2	Fixed and/or matted axillary LN or ipsilateral intramammary (IM) LN	10	15.6
N_3	Infraclavicular LN ± axillary LN	3	4.7
	IM LN ± axillary LN		
	Supraclavicular LN ± axillary/IM LN		

The staging of tumor were completed after compiling all the dates and the results are shown in Table-III

Table III

Stage	No of patients	% of patients
I	9	14
II	27	42
III	22	34
IV	6	9

Discussion

There are various systems of staging carcinoma breast. TNM system developed by UICC (Union Internationale Contre Cancer) in 1950 is the system accepted worldwide. In this system the tumor size (T), locoregional lymph node involvement (N) and metastasis (M) are considered for staging. There are various stages of T,N and M. considering all factors there are 4 main stages of carcinoma breast in TNM system, which, in brief are as follow.

Stage I: $T_1 N_0 M_0$

Stage II: $T_1 N_1 M_0$ / $T_2 N_0 M_0$ / $T_2 N_0 M_0$ / $T_2 N_1 M_0$ / $T_3 N_0 M_0$

Stage III: Any combination of T & N greater than stage II with M_0

Stage IV: Any T/ Any N with M_1

There are further subdivisions and specifications in TNM system allowing for 180 possible combinations. These complicated subdivisions are avoided in this study.

This study shows that majority number (42%) of our rural women with carcinoma breast present at stage II, and a significant number (34%) present at stage III. Only a small number of patients (14%) present at stage I. Rest (10% patients present very late with metastasis.

In developed countries and educated societies women present earlier with carcinoma breast. In USA 53% present at stage I, 32% present at stage II and only 5% and 4% respectively at stage III and stage IV[7]. Therefore at least 85% patients present with early breast cancer. In South Africa study shows that white population present at an earlier stage than black population. One other study showed that in white community 30.8% present at stage I, 38% at stage II, 19% at stage III and 12% at stage IV. On the other hand in nonwhite community the figures are 5.4%, 16.9%, 41.6% and 36.1% respectively[8]. Studies in Pakistan shows figures very similar to nonwhite community of South Africa. [9,10]In Trivenderum, India the figures are 4.4%, 42.3%, 40.5% and 12.8%[11]. Our study shows result very much comparable to this study. In both of these studies almost half of the women present with late carcinoma breast. Whereas in advanced communities somewhat 15% to 25% patients present with late carcinoma breast. Correlating the studies performed in various societies, it is very easy to find out women in advanced societies present much earlier with better survival rate. More the backward and conservative the society is, more the delay and worse the prognosis. Ignorance, religion, superstitions, self denial, fear of mastectomy, lack of treatment facilities, economic dependence are some of the factors for late presentation[12].

Conclusion

Only 14% of our rural women with carcinoma breast present at stage I of the disease. This figure is much lower than advanced societies. So a lot can be done to improve our situation. Our health care system should put more emphasis to educate our women to present at an earlier stage of the disease and the importance of self examination of breast, routine mammography every year after 40 years of age, avoidance of fatty food,estrogen hormone, encourage breast feeding and FNAC or excisional biopsy of any breast lump.

References

1. J emal A et al. Cancer Statistics2008. CA Cancer J Clin. 2008; 58:71-72
2. American cancer Society. Cancer - Facts & Figures 2011. [Pub Med]
3. Giuliano AZ, Breast. In Doherty GM &Way LW. Editors Current Surgical Diagnosis & Treatment. 12th edition, McGraw Hill,USA,2006; 300-323
4. Simpson JF, Gray R, Dressler LG et al. Prognostic Value of Histological Grade and Proliferate Activity in Axillary Node Positive Breast Cancer. J Clin Oncol. 2000; 18: 2059-69.
5. Sainsbury r. The Breast. In Williams NS, Balstrade CJK & O'Connel PR. Editors Baily & Love's Short Practice of Surgery, 25th edition. Hodder Arnold, London. 2008; 837-842.
6. Hays DF. Prognostic & Predictive factors for Breast Cancer-Translating Technology to Oncology. J Clin Oncol. 2005; 23: 1596-98
7. Forbes JF. The Incidence of Breast Cancer- The Global Burden. Seminar on Oncology.1997;24 (Supp J): 1-37.
8. Vorobief DA, Sitas F, Vorobief G. Breast Cancer Incidence in South Africa. J of Clin Oncol, 2001;19:125-127
9. Malik AM, Pathan R, Shaik NA, Qureshi JN, Talpur KA. Pattern of Presentation & Management of Carcinoma Breast in Developing Countries. J Pak Med Assoc. 2010;60:718-721
10. Batool M, Arian M, Gardegi J. An Experience with Breast Disease in a Surgical Unit of a Teaching Hospital of Lahore. Biomedica. 2005; 21: 108-112
11. Chopra R. Carcinoma Breast- The Indian Sceme. J Clin Oncol. 2001;19: 106-111
12. Anyanwu SN. Temporal Trends in Breast Cancer Presentation in the Third World. J EXP & Clin Can Research. 2008;27: 1-6.