Stages of Carcinoma Breast at Presentation in Rural Bangladeshi Women

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ABSTRACT

Carcinoma breast is the leading cause of 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, mammographically, avoidance of risk factors and advantages of FNAC & biopsy from any breast 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 year¹,². 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 patterns³.

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 early³.

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 prognosis³,⁴. 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 decisions⁵,⁶.

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 thorough 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**

<table>
<thead>
<tr>
<th>T status Criteria</th>
<th>No of patients</th>
<th>% of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 Less than 2cm in size</td>
<td>19</td>
<td>29.7</td>
</tr>
<tr>
<td>T2 2 to 5 cm size</td>
<td>29</td>
<td>45.3</td>
</tr>
<tr>
<td>T3 More than 5cm</td>
<td>10</td>
<td>15.6</td>
</tr>
<tr>
<td>T4 Chest wall/ skin fixed</td>
<td>7</td>
<td>10.9</td>
</tr>
</tbody>
</table>

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

**Table II**

<table>
<thead>
<tr>
<th>N status Criteria</th>
<th>No of patient</th>
<th>% of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>N0 No lymph node(LN) involved</td>
<td>17</td>
<td>20.6</td>
</tr>
<tr>
<td>N1 Mobile ipsilateral axillary (ax) LN</td>
<td>26</td>
<td>40.1</td>
</tr>
<tr>
<td>N2 Fixed and/or matted axillary LN or ipsilateral intramammary (IM) LN</td>
<td>10</td>
<td>15.6</td>
</tr>
<tr>
<td>N3 Infraclavicular LN ± axillary LN IM LN ± axillary LN Supraclavicular LN ± axillary/LM LN</td>
<td>3</td>
<td>4.7</td>
</tr>
</tbody>
</table>

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

**Table III**

<table>
<thead>
<tr>
<th>Stage</th>
<th>No of patients</th>
<th>% of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>II</td>
<td>27</td>
<td>42</td>
</tr>
<tr>
<td>III</td>
<td>22</td>
<td>34</td>
</tr>
<tr>
<td>IV</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

**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: T1 N0 M0

Stage II: T1 N1 M0 / T2 N0 M0 / T2 N1 M0 / T3 N0 M0

Stage III: Any combination of T & N greater than stage II with M0

Stage IV: Any T / Any N with M1

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. 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. Studies in Pakistan shows figures very similar to nonwhite community of South Africa. In Trivenderum, India the figures are 4.4%, 42.3%, 40.5% and 12.8%. 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. Most 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.

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