Breast Cancer: Multidisciplinary Care and Clinical Outcomes.

Nausheen Hashsham,Qasim Ali, M. Faisal Murad, Tariq Nawaz,Asif Raza, Asif Zafar
Department of Surgery, Holy Family Hospital and Rawalpindi Medical College, Rawalpindi

Abstract

Background: To assess the effect of multidisciplinary approach on the management of carcinoma breast patients.

Methods: In this descriptive study analysis was performed for the records of 158 consecutive women with breast lesions examined in consultation in a multidisciplinary breast cancer centre between surgeons, oncologists and pathologists through video conferencing. Detailed examination was performed. Relevant mammograms, pathology slides, and medical records were reviewed.

Results: 46.1% patients were referred to HFH for Modified Radical Mastectomy (MRM) after chemotherapy and 53.9% were referred to NORI for chemotherapy and later their MRM was done. Modified radical mastectomy was performed in 66 and breast conservative surgery in 2. Stage II (42.7%) was the commonest.

Conclusions: The multidisciplinary breast cancer evaluation program led to an increase in neo-adjuvant chemotherapy. It provided second opinions for many patients with breast carcinoma. This has helped in a better follow up of patients and has improved patient satisfaction.

Introduction

Advances in the diagnosis and treatment of breast carcinoma have led to a multidisciplinary approach to management of patients with breast carcinoma. A multidisciplinary approach to breast cancer is a routine in developed countries. In an underdeveloped country, like Pakistan, majority of the population lives in rural areas. Women are at par in number with males, but more illiterate, hence are not aware of risk factors and symptoms of breast cancer. Taking this in consideration, telemedicine and teleoncology services can provide much relief to the patients living in rural areas who generally have to travel long distances to see a doctor and that too a specialist in country where specialist population ratio is 1:12800. Lack of specialized health care facilities and delayed transportation and lack of awareness being added to it lead to delay in management and complications that could have been prevented in case of earlier detection. This calls for alternative ways of consulting and treating patients from smaller rural centers. Care of cancer patients with particular reference to breast cancer patients using video conferencing is an attractive model to satisfy this call. Telemedicine facilities are currently available at 3 hub stations in Pakistan and Holy Family Hospital is one of these. All these centres are linked through broadband wireless. When a patient is diagnosed as having breast cancer, initial workup is done by surgeons, tissue diagnosis is made by histopathologist and staging investigations being done by radiologists and finally a management plan is made by oncologists after referral which was time consuming and caused inevitable delay in patient management. This also led to increased patient dropout rate and increased morbidity. In November 2005, teleoncology practice was started in Holy Family Hospital, using videoconferencing set up between surgeons, radiologists and histopathologists in Holy Family Hospital and oncologists at Nuclear Oncology and Radiotherapy Institute, Islamabad.

Patients and Methods

This retrospective study involved review of records of 158 carcinoma breast patients discussed in multidisciplinary meetings held weekly in surgical unit 2, Holy Family Hospital, from November 2009 to February 2012. Surgical unit 2 is a 50 bedded unit in Holy Family Hospital, Rawalpindi and referred patients include those from not only Rawalpindi and Islamabad but also from neighbouring areas like Chakwal, Murree etc.

All those patients discussed in multidisciplinary meetings were included in study, and either presented to outpatient department of surgical unit or NORI hospital. The data derived included stages at which patients presented, surgery done and follow up of these patients with reference to their drop out rate and comparison with previous drop out rates before these meetings were started.

Results

A total of 148 patients were included in study. Their
mean age was 45±5 years and mean tumor size at presentation being 5.5±2 cm. Sixty eight were operated with modified radical mastectomy being done for 66 of them and only 2 breast conserving surgeries were performed. Majority (42.7%) were diagnosed as stage II (Table 1)

**Table 1: Carcinoma Breast—Clinical staging of the patients**

<table>
<thead>
<tr>
<th>Stage</th>
<th>II</th>
<th>IIA</th>
<th>III</th>
<th>IIB</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td>63</td>
<td>3</td>
<td>28</td>
<td>17</td>
<td>14</td>
</tr>
</tbody>
</table>

**Discussion**

According to WHO, the European Commission, and the American Telemedicine Association centre telemedicine is the "use of telecommunication to advance health". Teleoncology is the application of telemedicine to oncology, including diagnostics (laboratory, radiology, pathology), treatment (surgery, radiation oncology, medical oncology), and supportive (rehabilitation and palliative) care. Therefore, teleoncology includes any telemedicine application used to advance cancer care. 2-5

Breast cancer is a considerable public health issue for all female population. However, certain females, are more at risk than others. Providing equitable access to cancer services regardless of patient location is an issue of paramount importance. Published cancer statistics may not offer an accurate picture of the number of females affected by cancer in Pakistan, as many cases, particularly rural patients, may go undiagnosed and, consequently, untreated because of the difficulties they have when attempting to access specialty health care services. 6

Although accessing specialists is not an impossible task for rural patients, it is much more involved for them than for their urban counterparts. The cumbersome process of accessing specialty care is further complicated by the health status of breast cancer patients. Pain from symptoms, discomfort caused by treatment, and the emotional toll associated with having cancer make it particularly challenging, both mentally and physically, to travel long distances to access treatment. Therefore, being able to readily access quality specialty care can significantly influence outcomes for people living with cancer. Rapid expert opinions at the time of staging and treatment planning can improve patient outcomes, and improve the integrity of clinical trials data. 7

Teleoncology sessions proved beneficial for breast cancer patients and have led to an improvement in patient care and outcome owing to the fact that there is now ease of referral between centres and much less hassle in taking appointments as appointment dates are given through these sessions saving precious time and leading to better patient compliance. This is also reflected in markedly decreased patient dropout rate compared with the previous one when patients were referred without an appointment and management plan being formulated. It has also led to an improvement in knowledge of postgraduate residents. Discussions are carried out by all consultants with active participation by residents in formulating final management plan prompting them to do research and study for arriving at the best possible decision. 8-10

**Conclusion**

Multidisciplinary approach, facilitated through telemedicine, helps in improving patients' management, as all specialities involved interact in a single session.

**References**

1. Sabesan S, Brennan S. Teleoncology for cancer care in rural Australia: Telemedicine techniques and applications 2011; 289-305