ORIGINAL ARTICLE

A 2 year study of Breast Cancer presentation in a single unit of tertiary care government hospital: Plight of oncological services

KIRAN SARFRAZ, ARSLAN MUNAWWAR, ARFA RAFIQUE, *KHADIJA KHURRAM, JAVED RAZA GARDEZI*
[1]*Senior Registrar, General Surgery, Services Hospital Lahore.*
[2]*Postgraduate Resident, General Surgery, Services Hospital Lahore*
[3]*House Officer, General Surgery, Services Hospital Lahore.*
[4]*House Officer, General Surgery, Services Hospital Lahore.*
[5]*Professor of Surgery, Services Hospital Lahore*
Correspondence to Dr. Kiran Sarfraz, Email: sarfraz.kiran1@gmail.com Cell: 03334543124,

ABSTRACT

Background: Breast cancer is the most common malignancy in Pakistani women; more than 4000 women are affected by this systemic disease annually. .Exceeding number of patients (median 49.6) have grade III invasive ductal carcinoma (IDC).
Aim: To observe the trend of breast cancer in patients presenting to a tertiary care institution of Punjab.
Method: An observational study was conducted at Surgical Unit-I of Services Hospital, Lahore. A retrospective review of medical record was done for the patients presenting to the outpatient department and admitted for surgery between January 2015-December 2016.Information was compiled for the variables which included age,gender,family history, menopausal status, status of neo adjuvant chemotherapy (NAC) and histology and grade of tumour.
Results: During a period of 2 years a total of 37 patients of breast cancer were admitted in the Surgical Unit-I of Services hospital Lahore for modified radical mastectomy with axillary lymph node dissection (ALND) after a diagnosis was made by trucut biopsy and triple assessment was done. Mean age at presentation was found to be 49±11.7 years (Median=45).Average length of hospital stay was 6.25± 3.51 days. The average of NAC cycles received was found to be 5.42±3.15 (Median=4).Highest incidence of locally advanced breast cancer was found in the women of age group between 41-60 years. Family history of breast cancer was positive in only one of the patients which makes 2.86%. NAC was given to 40% of the patients and 60% did not receive NAC. As far as the stage of the disease was concerned; 77.14 % of patients had stage IIIB and 22.86 % had stage IIB disease. Disease recurrence was noted for 5.71 % of the patients which presented as metastatic disease within one year and both died in the same year.
Conclusion: In our limited data of a 2 year period we have found that LABC is more common in our hospital with good one year outcome.LABC is more prevalent in younger patients. Breast cancer in our patients does not seem to relate to parity, marital status, history of breast feeding and family history.
Keywords:breast cancer; chemotherapy; locally advanced breast cancer.

INTRODUCTION

Breast cancer is the most common malignancy in Pakistani women; more than 4000 women are affected by this systemic disease annually. Breast cancer characteristics in Pakistani women are slightly different than rest of the world as most of them are in the reproductive age at the time of diagnosis. Majority of the patients have breast fed their children and have no family history of malignancy in their families.Exceeding number of patients (median 49.6)have grade III invasive ductal carcinoma(IDC).[1]Although the attitude and knowledge of breast cancer among female patients has changed remarkably in the past decade, many patients presenting in the tertiary care Government hospitals have locally advanced breast cancers (LABC). One of the reasons of such late presentations is a neglected breast lump. Other reasons are related to the socioeconomic status of the patient, passive attitude of the spouses, denial and depression.[2]More and more patients are becoming conscious towards their breast health owing to increased awareness related to social media.

Received on 01-05-2019
Accepted on 28-11-2019

Pakistan is a developing country where health access is limited and resources are constrained. Moreover, dedicated breast cancer diagnostic centres are scarce. The burden of the disease is more than what meets the eye. Mortality related to breast cancer is also higher as compared to countries in the West.[3]

The treatment protocol of LABC at dedicated institutions entails neoadjuvant chemotherapy (NAC) with post-operative radiotherapy .However, in areas where patient compliance is poor, a treatment regimen including modified radical mastectomy followed by adjuvant chemotherapy and radiotherapy is also commonly applied. The reason for this is that most of these LABC tumours respond poorly to chemotherapy and radiotherapy.

The objective of this study was to observe the trend of breast cancer in patients presenting to a tertiary care institution of Punjab.

METHODOLOGY

An observational study was conducted at Surgical Unit-I of Services Hospital, Lahore. A retrospective review of medical record was done for the patients presenting to the outpatient department and admitted for surgery between January 2015-December 2016. Information was compiled

for the variables which included age,gender,family history, menopausal status, status of NAC and histology of tumour and grade of tumour. Stage was grouped using the American Joint Committee on Cancer staging schemes[4,5] .Family history was taken as positive if there was history of malignancy in the first or second degree relatives.

The Statistical Package for Social Sciences (SPSS) software, version 19, was used to conduct the analysis and descriptive results were presented.Continuous variables included age at presentation, length of hospital stay and number of cycles of NAC; mean and standard deviation were calculated for these variables. Percentages were calculated for categorical variables which included family history, parity, history of breast feeding ,menopausal status, stage of the disease and whether they received NAC or not. Permission was taken from Institutional review board.

Our data collection was limited by the lack of information about various factors such as receptor status (estrogen receptors, progesterone receptors, and her-2/neu status) and sentinel lymph node biopsy. This was due to lack of facilities in our institution; to ensure that patients adhere to their treatment plan a more direct approach to optimize patients for surgery. Receptor status was determined for patients receiving NAC; however, to ensure a uniform data collection these were not mentioned in our study.

RESULTS

During a period of 2 years a total of 37 patients of breast cancer were admitted in the Surgical Unit-I of Services hospital Lahore for modified radical mastectomy with axillary lymph node dissection (ALND) after a diagnosis was made by trucut biopsy and triple assessment was done. Results of the receptor status were not present in all the files reviewed and thus this variable could not be included in the study. Of this group of patients 35 patients had IDC while 2 patients were cases of cystosarcoma phyllodes. In our study we included only patients with IDC.

Mean age at presentation was found to be 49±11.7 years (Median=45).Average length of hospital stay was 6.25± 3.51 days. The average of NAC cycles received was found to be 5.42±3.15 (Median=4).Amongst these patients, 34% were below the age of 40 years, 54% of the patients presented in the age group of 41-60 years and only 11% were found to be older than 60 years. Amongst these patients 94.29% were females and 5.71% were male. As for the menopausal status was concerned, of the 33 female patients 51.52% were pre-menopausal and 48.48% were menopausal. Only one female patient was nulliparous (3.03%). All patients were married and with the exception of one nulliparous patient all had breast fed their children. Family history of breast cancer was positive in only one of the patients which make 2.86% while 97.14% had no family history of breast or any other malignancy. NAC was given to 40% of the patients and 60% did not receive NAC.More than 6cycles of NAC were given to 17.74% of the patients, while 22.86% patients received less than 6 cycles of chemotherapy.As far as the stage of the disease was concerned; 77.14% of patients had stage IIIB and 22.86% had stage IIB disease. Disease recurrence was noted for 5.71% of the patients which presented as metastatic disease within one year and both died in the same year.

Table 1: Demographic and Clinical Features of Patients Presenting with Breast Cancer at Surgical Unit-I of Services Hospital Lahore.

Age (Females)	**n**	**%**
27-40	12	34%
41-60	19	54%
>61	4	11%
Total	35	100%
Gender		
Females	33	94.29%
Males	2	5.71%
Menopausal status		
Yes	16	48.48%
No	17	51.52%
Total	33	100%
NAC		
Yes	14	40.00%
No	21	60.00%
Total	35	100%
Average NAC cycles		
0	21	60.00%
>6	6	17.14%
<6	8	22.86%
Total	35	100
Family History		
Yes	1	2.86%
NO	34	97.14%
Total	35	100%
Mortality		
Yes	2	5.71%
No	33	94.29%
Total	35	100%

DISCUSSION

Despite the fact that the data is very limited and not representative of the population;the results produced by a single surgical unit are very similar to the data obtained by various large cohorts of the population described in other descriptive data analysis in Pakistan[1, 3].This also reiterates the fact that unlike the western population, breast cancer in Pakistan shows a more sporadic fashion of occurrence. Moreover, LABC is seen in younger age groups. This is contradiction to American, European and Australian data[6]. There also seems to be no relationship of breast cancer with parity, marital status and history of breast feeding. One of the reason of late presentation is the attitude of the society in general towards this affliction. Denial, passive attitude and low socioeconomic status seem to have a strong impact on the disease presentation .This together with the psychological impact of breast amputation and change in the dynamics of the marital status seems to inhibit women from seeking early medical care.

The outcome of the treatment of breast cancer depends on multiple factors. Age at the time of presentation, stage of the disease, grade of the disease, socioeconomic status and the health resources available are to name a few. The standard treatment protocol for LABC is neoadjuvant chemotherapy[7], however, in our group of patients NAC does not seem to effect the disease outcome in the short follow up period. Olayide presented similar results of response to chemotherapy in his review[8].

He does not describe the grade of the tumour of these LABC which can give an important clue to the poor outcome of the disease. Due to poor compliance of patients ,surgery before chemotherapy is employed for our patients .Patients seem to have a better follow up once surgery has been done to control the local disease. This is probably due to acceptance of the gravity of the disease by the patients.

The percentage of patients presenting with LABC is slightly more as compared to other study data available.However, the stage specific outcome of the disease cannot be studied in such a small population of patient.

There is an increasing need to develop a cancer registry system country wide to display the true picture of the disease in our country. This can help in better understanding of the disease pattern.There is still inadequacy of newer and better methods to deal with the disease when it comes to targeted and biological remedies[9,10].

In our country, there is a dearth of hospitals dedicated to provide oncological services .Even in major tertiary care hospitals, complete oncological assistance is not provided. There are only few hospitals that are equipped to provide such care. People coming from far off places have to go to various institutes to get their diagnostic tests completed .Not only does it lose precious time ,it becomes a hassle for the patients and their families.Moreover,in our institution facilities to ensure receptor status, bone scan for metastasis and sentinel lymph node biopsy is lacking. There is also absence of oncoplastic amenities. These are essentials of breast cancer management; although resource intensive, providing patients with these facilities can help our patients greatly.

Patients should be counselled for maintaining a regular follow up.Public awareness about the disease and its treatment should be done on a regular basis.This can help us in developing local screening criteria.Patients with neglected disease should be helped not only medically but also psychologically by developing a support system to help achieve better outcomes. Patients' families should also be included in the counselling sessions so that they can actively help and support the patients throughout their treatment.

CONCLUSION

In our limited data of a 2 year period we have found that LABC is more common in our hospital with good one year outcome.LABC is more prevalent in younger patients.Breast cancer in our patients doesnot seem to relate to parity, marital status,history of breast feeding and family history. Neoadjuvant chemotherapy can be offered to patients who are able to keep a good compliance; otherwise surgery after diagnosis followed by adjuvant chemo- and radiotherapy seem to be reasonable options.There is an increasing need to develop a cancer registry system in our country. Diagnostic modalities should be easily available and accessible for an early detection. Larger scale studies and comparative analysis will help us determine the various etiological factors linked to the disease pattern in Pakistan, thereby helping us developing preventive protocols and treatment regimen catering specifically to our patients.

REFERENCES

1. Badar F, Mahmood S, Faraz R, Yousaf A, Quader A, Asif H ,Yousaf A.Epidemiology of Breast Cancer at the ShaukatKhanum Memorial Cancer Hospital and Research Center, Lahore,Pakistan.Journal of the College of Physicians and Surgeons Pakistan 2015, Vol. 25 (10): 738-742
2. Mohamed IE[1], Skeel Williams K, Tamburrino M, Wryobeck J, Carter S.Understanding locally advanced breast cancer: what influences a woman's decision to delay treatment?Prev Med. 2005 Aug;41(2):399-405.
3. Kumar S, Shaikh AJ, Rashid YA, Masood N, Mohammed A, Malik UZ, Haider G, Niamutullah N, Khan S.Presenting features, treatment patterns and outcomes of patients with breast cancer in Pakistan: Experience at a university hospital.Indian J Cancer. 2016 Apr-Jun;53(2):230-234. doi: 10.4103/0019-509X.197728.
4. Greene FL, Page DL, Fleming ID, Fritz AG, Balch CM, Haller DG, et al., editors. AJCC Cancer Staging Manual, American Joint Committee on Cancer, 6th ed. New York: SpringerVerlag; 2002.
5. Edge SB, Byrd DR, Compton CC, Fritz AG, Greene FL, Trotti A, editors. AJCC Cancer Staging Manual, American Joint Committee on Cancer, 7th ed. New York: Springer-Verlag; 2010
6. Available from: http://seer.cancer.gov/statfacts/html/breast.html. July 19, 2013. [Last accessed on 2013 July 19].
7. Akhtar M, Akulwar V, Kulkarni A, Bansal A. Role of neo-adjuvant chemotherapy in locally advanced breast cancer. Indian journal of cancer.2015 Jul-Sep;Vol. 52(3):286-9.
8. Olayide A, Samuel O, Ganiyu R,Moses A, Gafar O, Abiola D, Dapo K, John A. How Effective is the Treatment of Locally Advanced and Metastatic Breast Cancer in Developing Centres?: A Retrospective Review.Ethiopian journal of health sciences 2015 Oct;Vol.25(4):337-44.
9. Diaby V, Tawk R, Sanogo V, Xiao H, Montero AJ. A review of systematic reviews of the cost-effectiveness of hormone therapy, chemotherapy, and targeted therapy for breast cancer. Breast cancer research and treatment. 2015 May; Vol. 151(1):27-40
10. Mohamed A, Krajewski K, Cakar B, Ma CX. Targeted therapy for breast cancer. AMJPathol 2013;Vol. 183(4):1096-112