



Research Article

PATTERN OF DELAYED PRESENTATION OF BREAST CANCER PATIENTS: EVIDENCE FROM RANGPUR MEDICAL COLLEGE HOSPITAL, RANGPUR, BANGLADESH

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ABSTRACT

Background: Bangladesh is facing a high burden of breast cancer disease. It is the 2nd leading cause of cancer death after cervical cancer. Delay in seeking treatment contributes in breast cancer patients' presentation at the tertiary hospitals when cancer is at an advanced stage and leads to poor prognosis. Late presentation with advanced stage is the common feature of breast cancer patients of Bangladesh. **Objectives:** The main objective of this study is to explore factors associated with delay in seeking cancer treatment among breast cancer patients at a tertiary care Hospital. **Methods:** Cross sectional observational study was conducted in the Department of Surgery Rangpur Medical College Hospital, Rangpur from January 2013 to December 2014. Patients who admitted to surgery ward and fulfill inclusion criteria during our study period was included in this study. Sixty two patients with carcinoma breast were included in this study. Thorough search for personal information and reasons behind delayed presentation was made from the patients. Information regarding tumor stage at time of diagnosis was extracted from hospital records and involved pathologic and clinical data. The data was collected in a pre designed data collection sheet. Correlation between personal and social factors and delayed presentation were made to find out the factors responsible for delayed presentation. **Results:** 36% patients came within 3 months of noticing the lump in breast and 64% delayed more than 3 months. Among 62 patients 76% were from low socioeconomic class, 62% had no formal primary education and 74% took initial treatment from Homeopath and traditional healer. Significant association was found with these patient related factors and delayed presentation. Association was also found between delayed presentation and advanced stage of disease. **Conclusion:** The findings suggest that 64% women with breast cancer presented late and have significant effect on their disease prognosis. There is a great impact of patient factors (personal and social) on delayed presentation. To reduce patient delay community awareness, health education programs regarding breast cancer should be implemented for target women who are at higher risk of delay.

KEY WORDS:-Breast cancer, Pattern, delayed.

INTRODUCTION

Breast cancer is one of the leading causes of cancer related death in female and accounts for 29% of all cancers

diagnosed each year worldwide.¹ This disease accounts for 32% of all female cancers and is responsible for 19% of cancer related mortality in women worldwide.² Bangladesh is facing a high burden of breast cancer disease. It is the 2nd

leading cause of cancer death after cervical cancer.² Late presentation with advanced stage is the common feature of breast cancer patients of Bangladesh. It is easily understandable that breast cancer incidence is increasing at a faster rate. But, In Bangladesh, there is no national cancer registry. However, age-standardized incidence rates from Karachi, Pakistan (53.8/100,000), and Kolkata, India (25.1/100,000)³ (both with whom Bangladesh shares many cultural and historical similarities), suggest an annual incidence rate of 35–40/100,000. Therefore, in Bangladesh, we estimate an annual new breast cancer case burden of 30,000 women.⁴

In developed countries, majority of breast cancers are diagnosed following screening. In developing countries, patients have limited access to screening or any effective awareness programs. So, consequently goes to advanced diseases.

Delay in breast cancer is defined as patient delay between first detection of symptom and first medical consultation.⁵ In an ideal word, after being diagnosed people would start treatment within a month.⁶ Delay can be due to patient delay (The interval between first detection of symptom and first medical consultation) and system delay (the interval between first presentation to medical professional and initial treatment). Prolong delay is usually defined as intervals greater than 12 weeks.⁷ About 60-80% cancer patients with advanced staged disease are often quoted for patients in Low and middle income countries because of late diagnosis. One third of cancer related morbidity and mortality might be decreased if cases were detected and treated earlier.⁸

Delay and late stage at diagnosis of breast cancer due to patients factor such as age, education, marital status, economic status, knowledge about breast disease, health seeking behavior and many other system factors like health care delivery system in terms of care providers; waiting time for diagnosis for cancer, lengthy referral system.

Hence, this study is designed to explore the factors responsible for delayed presentation of breast cancer patients. Since most literature on delayed presentation of breast cancer is from developed countries it was thought that a study from a developing country with a different culture might contribute to existing knowledge on the topic.

OBJECTIVE OF THE STUDY

The main objective of this study is to explore factors associated with delay in seeking cancer treatment among breast cancer patients at a tertiary care Hospital.

MATERIALS AND METHODS

The study was done in Surgery Department of Rangpur Medical College Hospital from January 2013 to December 2015. All diagnosed carcinoma breast patients were included in our study. After approval of ethical committee patients were properly counseled and informed written consent was obtained from each patient. Structured face-to-face interviews were conducted. The interviews contained detailed questions concerning personal information,

socioeconomic factors, diagnostic process, data regarding delay including date of first consultation, first arrival at hospital, treatment at different level and number of consultations and referrals. Evaluation of personal information included age, educational level, economic level, marital status. Delay was defined as time intervals of more than 12 weeks from first symptom recognition to first medical consultation and final diagnosis and treatment. Thus patients were divided into two groups: those who presented at three months or less and those who delayed more than 3 months. Information regarding tumor stage at time of diagnosis was extracted from hospital records and involved pathologic (tumor and node) and clinical data (metastasis). The data relating to events before hospitalization were collected from patients' history. Documentation of visits at different level was not available. Data was collected using a structured data sheet including personal information, socio-economic factors, history with clinical examination and laboratory investigations and reasons for delay. Collected data was compiled and findings were presented in the form of tables and graphs. Appropriate statistical analysis of the data was done using computer based SPSS (Statistical Program for Social Science) version-16.0. For comparison of data Chi-square probability test was performed. For each analytical test level of significance was 0.05 and $p < 0.05$ was considered significant.

RESULTS

Sixty two patients were accrued. All were analyzed. Sociodemographic characteristics are showed in table-1. Mean age of patients of our study was 49.16. 79.03% patients came from rural area. 62.9% patients had no formal primary education, 75.8% patients came from low socioeconomic status.

Table 1: Sociodemographic characteristics of patients

Sociodemographic characteristics	Number	Percentage
Age	09	14.44
20-40	40	64.50
41-60	13	20.96
>60		
Total	62	100
Residence	49	79.03
Rural	13	20.97
Urban		
Total	62	100
Level of education	39	62.90
No formal primary education	12	19.35
Complete primary	11	17.74
Complete secondary		
Total	62	100
Socio- economic status	3	4.38
High	12	19.6
Middle	47	75.8
Low		
Total	62	100
Marital status	5	8.06
Unmarried	38	61.27
Married	19	30.64
Widowed & Divorced		
Total	62	100

Delay of more than 3 months was observed in 64% patients. Association of patient factors (age, residence, level of education, social class, marital status) and other system factors was shown in table-2. Significant association was found between ages more than 50 years and delayed presentation, where p value was 0.013. Association was also found between low socioeconomic status, low education level and delayed presentation (p value was 0.000 and 0.012 respectively).



Table 2: Results for Factors Contributing to Delay in Seeking Treatment among Breast Cancer Patients

Factors/Character		Delay<3months n(%)		Delay>3months no (%)		p value
Age		16(69.56)		7(30.44)		0.013
<50		6(15.39)		33(84.61)		
>50						
Residence		18(36.74)		31(63.26)		0.758
Rural		6(46.16)		7(53.84)		
Urban						
Level of education		9(24.08)		30(76.92)		0.002
No formal primary education		4(33.34)		8(66.66)		
Complete primary		9(81.81)		2(18.19)		
Complete secondary						
Social class		3(100)		0(0)		0.000
High		10(83.33)		2(16.67)		
Middle		9(19.14)		38(80.86)		
Low						
Marital status		2(40)		3(60)		0.734
Unmarried		14(31.580)		26(68.42)		
Married		5(26.32)		14(73.68)		
Widowed & Divorced						
Mode of treatment		8(19.51)		33(80.49)		0.012
Homeopath & traditional healer		14(66.66)		7(33.34)		
MBBS/Other than Surgery specialist						
Patient delay		36		26		0.342
Referral delay	By Homeopath & traditional healer	9	22	32	40	
	By MBBS doctors	13		8		

No significant association was found between residences, marital status with delayed presentation. (p value was 0.758 and 0.734 respectively). Significant association was found between mode of treatment and delayed presentation. Those who treated by Homeopath or other local medication significantly delayed more than 3 months (p value was 0.012). Comparison was also done between patient delay and referral delay but the result was not statistically significant; though referral delay was more than patient delay

Out of 62 patients 66.12% patients took treatment from local homeopath and traditional healer. Delay of 9-12 months was noticed among them. 11.28% patients delayed due to inadequate treatment by graduate doctors and false negative FNAC report.

32 patients (52%) presented with stage III disease and 81% of them delayed more than 3 months, 9 patients (14%) presented with stage IV disease and 89% of them delayed more than 3 months. Patient presented with more than 3 months delay had higher stage of disease and it was statistically significant where p value was 0.000.

DISCUSSIONS

The mean age of women with breast cancer in our study was 49.16 (SD±11.79) years. This is a decade younger than seen in epidemiological reports on breast cancer elsewhere in developed countries.¹¹ These differences in the age of presentation with breast cancer in Bangladeshi women warrants for having different recommendations of screening age. Demonstrable association was found between advancing age and delayed presentation. Here more than 50 years of age group came with more than 3 month delay than younger age group of less than 50 years of age.

Most of the patients came from rural area (70%). This signifies the fact that this disease is no longer confined to an urban setting.¹² Majority of the rural population reached the tertiary hospital with more than 3 months delay. It was also observed in other studies because rural women face substantial barriers in receiving preventive health care services.¹³ It should also be taken into consideration that, maximum patients from rural area attend to the tertiary care hospital instead of private clinic because of lack of money.

Most (76%) of the patients were from low socioeconomic status and delay was more marked in low social class. Similar finding has been observed in other studies.^{14,15}

In our study 64% patients with breast symptom had a delay more than 3 months before coming to tertiary care hospital and the mean delay was 3.8 months. This number is quite similar with some developing countries like Nigeria, Cairo, Ghana.^{15, 17, 18} But gross difference seen in developed country like Germany.¹⁹

Our study found significant association between education level and patient delay. The role of education and knowledge in decreasing delay has been confirmed in other

studies^{17,19}. The finding suggests that lack of knowledge about breast cancer is an important factor in our country.

At this tertiary level hospital we found only 4% and 19.6% of high and middle class group respectively. This could influence by the fact that families with higher income will go to the private sector for the treatment, ultimately families with lower income ending up in government hospital. There was a significant association found between lower social class and delayed presentation. (P=.000) This statistics is similar with other studies.²⁰

In our study 21 patients took first medical consultation with MBBS doctors. Unfortunately they did not refer 7 patients to specialist or tertiary centre and there was a delay of more than 3 months seen in 8 patients. This figure indicates that breast cancer awareness and education program should include this group also.

As only 11% of responders initially came late to health provider because of lack of money, whatever, the initial cause 62% of patients came late to tertiary Hospital because they went to local homeopath doctors and took oral medication for months together. Unfortunately 3% patients had maltreated by doctors at different level by having inadequate surgery. There are some similarities and differences in the reasons for late presentation of the disease between countries with different levels of development. Similarities were found in relation to health seeking behavior like ignorance, use of alternative medicine with study done in Africa and Arab Emirates.^{17, 18}

After analyzing all we try to determine the pattern of delay. Here we see more than 50% patient took first consultation within 3 months but finally 36% of them reached to final diagnosis and treatment. This is because of the referral delay at different level. Though this was not statistically significant. Here taking homeopath treatment for long duration is the most frequent factor. But again lack of knowledge and money is the main factor, for this patient took this sort of treatment. So, patient factor has an impact on delayed presentation.

CONCLUSION

This study was done in a poorer area of this developing country where there is every scarcity in any fundamental needs. So, delay for seeking health care and patient presentation at the tertiary care hospital with advanced cancer stage observed to the most of the study participants. This was an important limitation as poor patient do not go to private sector.

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