ORIGINAL ARTICLE

# PATIENT SELF DELAY AMONG WOMEN WITH BREAST CANCER

**Ayesha Khan, Khalid Khan, Ali Raza, Zaheer ud Din Qureshi, Babar Sultan, Fahad Ali Khan**

**Department of Surgery, Ayub Ayub Teaching Hospital, Abbottabad-Pakistan**

**Background:** Delay in the diagnosis of carcinoma breast has important prognostic, clinical and medico-legal implications. This study assesses the frequency and causes of patient delay in women with breast cancer presenting to a breast clinic run by a specialist surgical unit in a tertiary care hospital. **Methods:** For this study all women, aged between 16–90 years, who presented with primary breast carcinoma of any histological type, diagnosed between June 2016 to September 2017 were eligible. Structured interviews were administered during the first visit with a confirmed diagnosis or the first hospitalization due to carcinoma breast, and the frequencies of the factors for delay analysed. **Results:** 84% of the patients presenting with primary carcinoma breast present with a significant patient delay, of which older patients who are illiterate, poor, coming from rural areas and unaware of carcinoma breast as a disease, among other factors, have a higher tendency to delay consultation. **Conclusion:** Healthcare advice-seeking behaviour in women suffering from breast cancer in Pakistan is alarming with a vast majority of patients presenting late leading to delayed treatment and probable worse outcomes and survival.

**Keywords:** Carcinoma breast; Self-delay; Late diagnosis; Patient delay; Breast cancer

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## INTRODUCTION

Being the most common cancer encountered in females, carcinoma breast has serious public health significance. Due to non-availability of primary prevention, early detection continues to be the major focus regarding breast cancer. Delay in diagnosis is also one of the most common clinical scenarios that result in malpractice litigation.[1] Many studies have been carried out reporting significant increase in morbidity and mortality due to delays in diagnosis and treatment of carcinoma breast.[2–4]

There are two major types of delay; first, patient delay is the delay in seeking medical attention after self-discovering a potential breast cancer symptom, secondly, system delay is delay within the health care system in getting appointments, scheduling diagnostic tests, receiving a definitive diagnosis, and initiating therapy.[5] Studies conducted on delay and its prognosis reveal delayed presentation is associated with more advanced stage, poorer prognosis and survival.[3]

This study aims at identifying the factors on the patient's behalf that lead to late diagnosis of breast cancer. Since earlier detection is associated with a lower morbidity and mortality, and identifying the causes and minimizing delays in detection is an important aspect in fighting breast cancer.

## MATERIAL AND METHODS

This study assesses the frequency and causes of patient delay presenting at a tertiary care hospital. The hospital provides specialist healthcare services, including surgery, radiotherapy, and chemotherapy, to patients from the province of Khyber Pakhtunkhwa, Kashmir, and the northern areas, as well as some patients from neighbouring areas. Interviews of women who presented with carcinoma breast were conducted, and the potential causes of delay identified. Each structured interview was conducted by the author herself and took approximately half an hour to complete.

Patient delay was defined as duration of time between the point when patient first became aware of the symptoms and her first consultation with a surgeon. For minimizing recall bias, the length of time was measured against major religious and cultural holidays and events and with the use of a calendar rather than documenting time lapse relying on patient's approximation by memory alone. It was then categorized by the presence of patient delay if the time lag was more than or equal to three months, or no delay if less than three months.

## RESULTS

In the course of this study, 84% patients presented with significant self-delay, and only 16% presented within three months of awareness of symptoms.

**Table-1: Factors thought of as causing patient delay (PD) and their corresponding references.**

| **Socioeconomic factors** | **References** |
|---|---|
| Lower literacy status | 6,7,8 |
| Financial affordability | 6,9,10 |
| No healthcare access nearby | 11,12 |
| Old age | 9,12 |
| Young age | 7,13 |
| Marital status | 12,14 |
| No family history of breast cancer | 15,16 |
| Low income | 17 |
| High income | 14 |
| **Symptomatology** | |
| Not attributing symptoms to cancer | 12,15 |
| Breast lump being painless | 16, 18 |
| **Attitudes of patients** | |
| Non-supportive family and friends | 7,16,19 |
| Relying on traditional methods and healers or alternative treatment | 9,16,20,21 |
| Lack of awareness of the disease and its outcomes | 10,16,22 |
| A comorbid condition | 23 |
| Fear of disease, treatment adverse effects, examination and chemotherapy | 10,16,17,19 |

**Table-2: Frequency of self-delay seen in our study.**

| Patient Self Delay | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| No delay | 7 | 16.3 | 16.3 | 16.3 |
| Delay > 3 months | 36 | 83.7 | 83.7 | 100.0 |
| Total | 43 | 100.0 | 100.0 | |

**Table-3: Frequencies of the factors related to patient delay in breast cancer patients.**

| **Factors** | **Frequency % (n)** |
|---|---|
| Older age | 88 (24) |
| Younger age | 62.5 (12) |
| Lower literacy status | 80.5 (29) |
| Negative family history of breast cancer | 100 (36) |
| Low income | 33.3 (12) |
| Not attributing symptoms to cancer | 75 (27) |
| Breast lump being painless | 88.8 (32) |
| Symptoms thought of as temporary and self-limiting | 74.4 (26) |
| Non-supportive family and friends | 8 (3) |
| Relying on traditional methods and healers or alternative treatment | 58.3 (21) |
| A comorbid condition | 38.8 (14) |
| Lack of awareness of the disease and its outcomes | 77.7 (28) |
| Fear of disease, treatment, adverse effects, examination and chemotherapy | 13.8 (5) |
| lack of local access/difficulty in access to healthcare | 27.7 (10) |
| others | |
| Misdiagnosed as a benign lump by General Physician at Primary Healthcare | (2) |
| Attributed the breast lump to Diabetes | (1) |
| Attributed the breast lump to Stroke | (1) |
| Attributed the breast lump to ceasing breastfeeding | (2) |
| Previous Excision Biopsy done but the sample not sent for Histopathology | (1) |

## DISCUSSION

Breast cancer is the most common cause of cancer death in women. Even though mortality has been declining in developed countries[24], but because of lack of population-based screening programs and awareness in developing countries, they have yet to see an improvement[4]. Many studies conducted on the effects of delayed presentation on prognosis of the disease showed that it is associated with reduced survival rates.[1–3,5,7,8,17] Our study showed that the majority of patients that presented with carcinoma breast came for their first consultation late.

Although factors leading to a delay in diagnosis have been described,[25] their impact and mitigation strategies are yet to be described in different populations. Undue reassurance that a palpable mass is benign, without biopsying, is major factors of physician delay.[5] Screening mammography programs help detect early, non-palpable breast cancer. the proportion of patients with self-detected symptoms of cancer might therefore have an inverse relation with the prevalence and availability of mammography screening.[26] As there are no screening programs in Pakistan, patients present with palpable tumours when detected on self-examination. Furthermore, accessibility to health facilities varies across different populations and rural areas suffer from a lack of facilities like mammogram, fine needle aspiration and biopsy. Most of these patients, even after finding they having symptoms, delay their visit to a healthcare system. This study was aimed at finding specific socioeconomic and cultural causes of patient delay in the population studied.

There is another interesting apparent paradox. Patient delays of greater than three months seem detrimental, having worse outcomes, but at the same time, healthcare system delays of the same

duration with a healthcare professional's referral are not dangerous and seem to have a better survival rate. Afzelius *et al*[27] attribute the latter to doctors detecting more malignant cancers being hastened into treatment, but still having a worse outlook, meaning worse cases have no healthcare delay, but early cases might have some. This subject needs to be studied further with special consideration of confounding factors (histology, grading, staging, local invasion, metastases, and varied symptomatology etc).

Some studies report older age at presentation to be a strong socio-demographic factor associated with patient delay[28–31], a study showing it to be the only factor associated with patient delay, in that women aged sixty and over postponing consultation fivefold more than younger women[32].

The most common clinical presentation of carcinoma breast is a painless mass in the breast. Over time it invades the surrounding tissues and metastasizes to lymph nodes and distant organs. Patients tend to discredit the significance of this symptom as it is not functionally limiting, too noticeable, or debilitating. This usually leads them to believe it is harmless. This leads to delay in accessing medical consultation, until the tumour grows upstage and causes other symptoms. In our study, 89% patients ignored the disease due to the absence of pain, and 75% thought of it as harmless. Our findings reemphasize the need for cancer prevention programs to focus on making women "breast aware," so that minor symptoms would alarm them into seeking prompt medical advice.

Health-care has financial implications. As a significant population of Pakistan is below the poverty line, patients tend to avoid or delay medical consultation. Another factor, often overlooked, is the impact of non-availability of, and distance and cost of travel to health care facilities on patient delay. Gangane *et al* in their study in rural India observed that the distance from the patient's residence to the healthcare centre was not a significant factor causing delay, but surprisingly, as the cost of travel to the hospital increased, delay decreased significantly.[32] In our study 33% of patients could not make timely appointments due to financial constraints and 28% had trouble accessing healthcare but this was not a statistically significant finding.

The significance of health education awareness in this population is highlighted by our finding ~~s~~–that less than one third of women were aware regarding breast cancer. 78% were completely unaware of breast cancer, self-examination, or the fact that breast cancer is potentially treatable if help is sought in time. Since breast cancer screening comes with issues such as high cost and uncertainty, the emphasis has to be on prevention.[33]

## CONCLUSION

Our study found that medical help seeking behaviour in women suffering from breast cancer in Pakistan is alarming. Targeted health education programs need to be implemented to make more women "breast aware" about the significance of self-examination, painless breast masses, and the potential for cure with timely access to a hospital. This will result in earlier detection of breast cancer and reduced patient delay. Pakistan has the second highest incidence of carcinoma breast in Asia, and due to this immense disease load, there is also a need to gather similar evidence from different parts of the country that can be used to form and implement a rigorous national breast cancer prevention and screening program.

## AUTHORS' CONTRIBUTION

AK: Concept, Design, data collection, analysis and write-up. KK & BS: Concept and design. AR: Data collection. ZUDQ: Write-up. FAK: data collection and analysis.

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## Address for Correspondence:

**Dr. Ayesha Khan,** Department of Surgery, Ayub Teaching Hospital, Abbottabad-Pakistan
**Email:** aiciakhan@yahoo.com