

ORIGINAL ARTICLE

Presentation of Carcinoma Breast in Female Population of Northern Half of Pakistan

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ABSTRACT

Objective: The objectives of this study were to determine the most common presentation of carcinoma breast in female population of northern areas of Pakistan.

Material and methods: This prospective study was conducted in the Department of Surgery, Fauji Foundation Hospital Rawalpindi from 1st March 2009 to 28th February 2010. 120 patients were included by non-probability convenience sampling. Only female patients with histological proof of carcinoma breast were included in the study. Male patients, patients with recurrent disease and those who refused to give consent were excluded from the study.

Results: Mean age was 53.22 years. 92% of the patients were between the ages of 41 to 60 years. Duration of symptoms ranged from 2 months to 2 years. 75 % of patients presented with painless lump, 25 % presented with ulceration and underlying lump, 10 % had nipple discharge, 20 % had weight loss, and 8.3 % had jaundice.

Conclusion: All the females above the age 41 years with lump breast should be seen by a surgeon and investigated to rule out carcinoma breast.

Keywords: Carcinoma breast, invasive ductal carcinoma, carcinoma in situ, mammogram.

INTRODUCTION

Carcinoma breast (Ca Breast) is the most commonly diagnosed cancer among female population¹. The world burden of breast cancer is one million women newly diagnosed each year². This rise in numbers suggests increased detection due to improved awareness of breast diseases among female population³. It is also the commonest malignancy affecting females in Pakistan as in the rest of the world⁴. Approximately one in every 9 Pakistani women is likely to suffer from breast cancer which is one of the highest incidence rates in Asia⁵.

Early marriages, genetic predisposition and hormonal imbalance, use of oral hormonal contraceptives, prolonged hormonal replacement therapy, environmental hazards and parity are considered to play an important role in causation of carcinoma breast⁶. However breast cancer occurs in Pakistani women with no recognized major risk factor⁷.

The patients with breast carcinoma commonly present with lump, peau'd orange, nipple retraction, nipple discharge, pain, fungation and ulceration of skin⁸, with painless lump being the most common presentation^{4,9}. The patients may also present with metastatic disease to axilla¹, lungs, liver, bones or brain. Despite advances in diagnostics modalities most of the patients are diagnosed at advanced stages of breast cancer

due to delayed presentation^{4,10} associated with poor socio-economic conditions, ignorance and shyness¹¹.

These patients require multiple treatment modalities, i.e. surgery plus radiotherapy or surgery plus chemotherapy and surgery plus radiotherapy plus chemotherapy. Undoubtedly this state of affairs leads to unwarranted pressure not only on hospital resources but also on the patients themselves.

Purpose of Study

The purpose of this study was to assess the commonest presentation of Ca breast in female population of Punjab, Kashmir and Khyber Pakhtoon Khawa in a tertiary care hospital.

PATIENTS AND METHODS

This prospective study was conducted in the Department of Surgery, Fauji Foundation Hospital Rawalpindi from 1st March 2009 to 28th February 2010. Written permission was taken from the ethical committee of hospital as well as from the patients. 120 patients were included by non-probability convenience sampling. Only female patients with histological proof of carcinoma breast were included in the study. Male patients, patients with recurrent disease and those who refused to give consent were excluded from the study.

Data collection and analysis

All the pertinent details regarding patients profile including name, age, marital status, menarche, parity, lactation history, use of oral contraceptives, family history of breast cancer, presenting complaints and duration of symptoms were noted. Thorough clinical examination was done to assess the tumor site, size, surface, consistency, skin changes, nipple retraction, lymph node status and distant metastasis. Findings were meticulously recorded in proforma after obtaining informed written consent from the patient. Confidentiality of the data obtained was maintained. The data was analyzed by using SPSS version 15. The mean \pm S.D. were calculated for numerical variables. One-Way ANOVA test was used to compare size of tumor with respect to duration of symptoms and involvement of lymph nodes. Chi-squared test was used to find out association of duration of symptoms with skin changes and stage of breast carcinoma. A P-value of <0.05 was considered statistically significant.

RESULTS

The duration of symptoms at the time of presentation ranged from 2 months to 4 years. Mean duration was 12.67 ± 11.91 months. Forty-five percent patients (54) presented within 6 months of onset of symptoms as shown below in table 1.

Table 1:

Duration	Frequency	Percent
up to 6 months	54	45.0
6-12 months	32	26.7
more than 12 months	34	28.3
Total	120	100.0

Table 2: Presenting Symptoms

Symptoms	No. of patients	Percentages
Lump	90	75%
Ulceration with lump	36	30%
Nipple Discharge	6	5%
Weight Loss	24	20%
Jaundice	10	8.3%
Cough	0	0%
Bone Pain	0	0%
Pain in Lump	0	0%
Fever	0	0%

In most patients, presenting symptom was presence of a painless lump. Some patients presented with ulcer. Later on examination revealed that all the patients had a lump underlying the ulcer. Other symptoms like nipple discharge and weight loss were also noted. Few patients presented with symptoms of distant metastasis. Details are shown in table 2.

Left breast was involved by the tumor more than the right. There was no case of bilateral disease. Out of 120 patients, 72 patients presented with left sided disease whereas 48 patients got tumor in the right breast.

The most common area involved was upper outer quadrant of breast. 6 patients had involvement of the whole breast. There was sub areolar tumor in 6 patients. The other areas involved are shown in the table 3 below.

Table 3: Quadrant Involved

Quadrant	No. of patients	Percentage
Upper Outer	76	63.3 %
Upper Inner	10	8.3 %
Lower Outer	8	6.6 %
Lower Inner	12	10.0 %
Sub areolar	6	5.0 %
Upper half	2	1.6 %
Whole breast	6	5.0 %

There were certain changes in the surface of the breast overlying the tumor. Results are shown in the table 4 below.

Table 4: Surface of Tumor

Surface	Frequency	Percent
smooth	36	30.0
irregular	52	43.3
ulcerated	32	26.7
Total	120	100.0

Most patients presented with a hard lump. Only 10 presented with a firm mass and none of the patient presented with soft mass. Majority of patients in this study had tumors which were mobile on the underlying surface whereas 7 tumors were fixed to the deeper structures.

In 58 patients there was involvement of skin by the tumor. In all 58 patients, there was peau d'orange along with varying combination of ulceration as shown in table 5.

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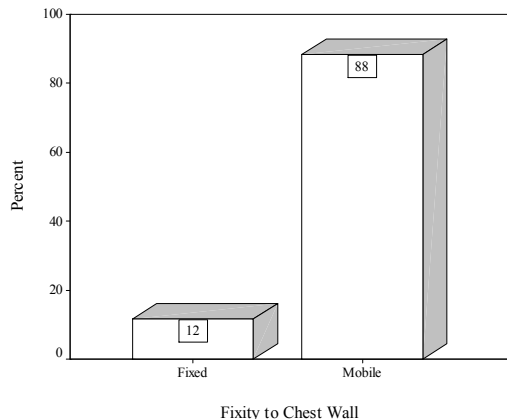


Table 5: Skin changes

Skin Changes	Frequency	Percent
peu d orange	14	23.33
peu d orange and ulceration	15	25
None	31	51.7
Total	60	100.0

The size of tumor ranged from 1 to 20 cm. Mean size was 5.72 ±3.22. There were 29 patients who had skin involvement at the time of presentation and thus fell in T 4 subgroup which appeared as the largest sub-group. There were no patients with a tumor less than 2 cm.

Table 6: Size of The Tumour

Size	No. of patients	Percentage
T 0	0	0
Tis	0	0
T 1	0	0
T 2=2-5 cm	30	25.0
T 3=>5 cm	32	26.7
T 4=any size with skin involvement	58	48.3

Table7: Lymph node status

Lymph Node Status	No. of patients
N 0	74
N 1=ipsilateral mobile	34
N 2=ipsilateral fixed	10
N 3=ipsilateral supraclavicular	2
Total	60

46 of our patients presented with palpable axillary lymph nodes. 2 patients presented with palpable ipsilateral supraclavicular lymph node. The detail of palpable nodes is shown in table 7.

DISCUSSION

The duration of symptoms at the time of presentation ranged from 2 months to 4 years. Mean duration was 12.67 ±11.91months. Forty-five percent (45 %) patients presented within 6 months of onset of symptoms which is consistent with the study by Isaac U, Memon F, and Zohra N¹¹.

Carcinoma breast was relatively more common in left breast in our study. There was no case of bilateral disease. There were 48 (40 %) patients in this study who had involvement of right breast whereas in 72 (60 %) patients left breast was involved as is also shown by various authors including Qureshi J N, Qureshi ZA, Arm P, Memon AS¹².

Carcinoma breast is more common in upper outer quadrant. Similar comparable results were obtained regarding location of the lump in this study. 76 (63.3 %) patients in this study had involvement of upper outer quadrant. 6 patients (5 %) had involvement of the whole breast. There was subareolar tumor in 6 patients (5%). 2 patient (1.6 %) had tumor in the whole upper half of the breast. These results were comparable to the studies by Baloch TA, Iqbal P¹³. Isaac U, Memon F, Zohra N¹¹.

Presence of lump is the most common presentation of carcinoma breast. In 90 (75 %) patients presenting symptom was presence of a painless lump whereas 30 patients (25 %) presented with ulcer. Later on examination revealed that all the patients had a lump underlying the ulcer, Peu d orange or skin fixity. Twelve patients had some degree of weight loss. On further inquiry some of the patients also had some other symptoms like nipple discharge, weight loss and jaundice. No patient presented with cough, bone pain, pain in lump, or fever. In 58 patients there was involvement of skin by the tumor. In all 58 patients, there was peu d' orange along with varying combinations of ulceration, skin fixity, tethering and nipple retraction. There were no skin changes in 44 patients. These results are comparable to local studies by Baloch TA, Iqbal P¹³, Gardezi J¹⁴, Isaac U, Memon F, Zohra N¹¹ and Qureshi J N, Qureshi ZA, Arm P, Memon SA¹².

106 patients (88.3 %) in this study had tumours which were mobile on the underlying surface whereas 14 tumors were fixed to the deeper structures. Clinically it could be clearly ascertained whether there was invasion of pectoralis major or the chest wall.

Locally advanced breast cancer involves the skin. There were 29 patients (48.3 %) who had skin involvement at the time of presentation and thus fell in T 4 subgroup which appeared as the largest subgroup comparable to reported by Qureshi S.Ghazanfar, S. Memon, SA¹². Attaullah. Quraishy, MS. Sultan, Aslam MN, Ansari AK, Siddique A, Imran M¹⁵. Fifteen patients (25 %) had T 2 tumours and 16 patients (26.7%) had T 3 tumours. Khanam A.et al reported T3 tumour in 47.22 %. There were no patients in the T0, Tis, and T1 groups¹². Involvement of skin was independent of duration of symptoms in this study.

The size of the tumour has a direct relationship with overall prognosis⁹⁵. Tumours less than 2 cm have a favourable prognosis. Women, regardless of their age, with tumours less than 5 cm generally do better compared with women with tumours greater than 5 cm¹⁶. There was no significant relationship between size of tumour and duration of symptoms in our study.

Involvement of lymph nodes is the single most important prognostic factor in carcinoma breast. There was no involvement of lymph nodes in 76 (63.3 %) patients. Ipsilateral mobile lymph nodes (N 1) were present in 32 patients (26.6 %). Ipsilateral fixed lymph nodes (N 2) were palpable in 5 patients (8.3 %). 2 patient (1.6 %) presented with palpable ipsilateral supraclavicular lymph node (N3). in this study lymph node metastasis was significantly dependant on tumour size and quadrant of breast involved by carcinoma. These results are comparable to the study by Baloch TA, Iqbal P¹³. In this study 14 patients (11.6 %) had distant metastases at the time of presentation whereas 106 patients (88.3 %) presented with the primary disease comparable to results by Baloch TA, Iqbal P¹³. Thus patients in M 1 or Stage IV were 13.3%. Aslam M N et¹⁵ al reported stage IV disease in 12 % of patient's population. Malik I A¹⁷ has reported a higher incidence (17 %) of metastatic disease. Stage of carcinoma breast was independent of duration of symptoms in our study. Clinical stages of disease in this study are compared with other local series in the table

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