

A study on breast carcinoma cases with varied presentations attending a tertiary care centre in north india

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ABSTRACT

Introduction: Breast cancer is one of the commonest cancers seen in females. Cutaneous infiltrates in a breast carcinoma is an indication for thorough investigation for metastasis in other organs.

Aims: To study varied presentations in patients of breast carcinoma with cutaneous metastasis.

Methods: A prospective trial was done of 25 patients of breast carcinoma with cutaneous metastasis coming to the dermatology OPD.

Results: Commonest site of cutaneous manifestation was chest wall seen in 14 (56%) patients, abdomen seen in 6 (24%) patients, extremities seen in 2 (8%) patients and axilla seen in 3 (12%) patients. The commonest pattern seen was multiple nodules seen in 12 (48%) patients, multiple papules seen in 6 (24%) patients, erysepeloid infiltration seen in 4 (16%) patients, ulcerated plaque seen in 2 (8%) patients and carcinoma en cuirasse seen in 1 (4%) patients.

Discussion: Most of the patients having cutaneous lesions are in an advanced stage of the disease. Moreover, the response to treatment with either chemotherapy or radiotherapy can be assessed by clearance or regression of these cutaneous metastasis.

KEY WORDS: Breast; metastasis; cutaneous; carcinoma; infiltration; nodules

INTRODUCTION

Breast carcinoma has varied presentations and cutaneous metastasis are seen in 23.9% patients.¹ Chest wall and abdomen are the commonest sites of cutaneous metastasis, but they can also occur at other sites including extremities and head and neck.² There are various types of cutaneous infiltrates. And, out of these, nodules are one of the commonest presentations. Cutaneous metastasis in breast carcinoma indicate widespread metastasis with poor prognosis. Also, it indicates later stage of disease and lack of response to treatment. Since cutaneous metastasis can be detected earlier as compared to metastasis in other organs, early recognition of these metastasis helps in treatment of these patients.^{3,4}

AIMS

To study varied presentations in patients of breast carcinoma with cutaneous metastasis in a tertiary care centre.

METHODS

A prospective controlled trial was done with 25 patients of breast carcinoma having cutaneous metastasis seen at our dermatology OPD was done. Written informed consent of all the patients was taken for the the study. Prior approval of hospital ethical committee was taken before the study. Detailed history of all the patients was taken including duration of carcinoma breast and time interval between the onset of primary disease and appearance of cutaneous infiltrates was noted.

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Complete examination was done in all the patients including cutaneous, systemic, haematological, radiological and histopathological examination.

RESULTS

The data was collected, tabulated and the results were analyzed statistically.

Table 1 Showing age distribution of patients

Sr no	Age distribution (years)	Number	Percentage
1	10 – 30 Yrs	-	-
2	31 – 50 Yrs	8	32%
3	51 - 70 Yrs	17	68%

Table 2 Showing sites of cutaneous manifestation of carcinoma breast

Sr no	Cutaneous site	Number	Percentage
1	Chest wall	14	56%
2	Abdomen	6	24%
3	Extremities	2	8%
4	Axilla	3	12%

Table 3 Showing type of cutaneous lesions

Sr no	Types of lesions	Number	Percentage
1	Multiple nodules	12	48%
2	Multiple papules	6	24%
3	Erysepeloid infiltration	4	16%
4	Ulcerated plaque	2	8%
5	Carcinoma en cuirasse	1	4%

DISCUSSION

Regarding the age distribution of patients, 8(32%) patients were between 31-50 years of age and 17(68%) patients were between 51-70 years of age. There were 24 females and one male with carcinoma breast in our study. Commonest site of cutaneous manifestation was chest wall seen in 14(56%) patients, abdomen seen in 6(24%) patients, extremities seen in 2(8%) patients and

axilla seen in 3(12%) patients and head and neck seen in 1(4%) patient. Regarding the pattern of cutaneous lesions, the commonest pattern seen was multiple nodules (Fig. 1) seen in 12(48%) patients, multiple papules seen in 6(24%) patients, erysepeloid infiltration (Fig. 2) seen in 4(16%) patients, ulcerated plaque seen in 2(8%) patients and carcinoma en cuirasse (Fig. 3) seen in 1(4%) patients. Peau de orange appearance (Fig. 4) was seen in 5 patients of carcinoma breast. Histopathology of the cutaneous infiltrates showed malignant cells which were highly anaplastic with prominent nuclei and nucleoli with tumoral cells



Fig. 1 Carcinoma erysepeloides pattern in a 50 years old female.



Fig. 2 Nodular infiltrates in a 62 years old female after mastectomy.



Fig. 3 Carcinoma en cuirasse in a 57 years old female.



Fig. 4 Peau de orange appearance in a 54 years old female.

typically dispersed in glandular like structures.

Breast carcinoma is the most important skin cancer in females. There was one male patient with carcinoma breast in our study who had an asymptomatic swelling for the last 2 years. Carcinoma breast in males is different from that in females, as in males there is minimal fat tissue and direct infiltration into the chest wall occurs earlier. Moreover, the males usually ignore it as it is a painless lump and by the time the cancer is detected in males, it is usually stage 3 or stage

4. The period of interval between the onset of symptoms of primary malignancy and cutaneous metastasis ranges from 6 months to 6 years.⁵ But in our study, we had a case in which firm nodules appeared in head and neck after 8 years of mastectomy with chemotherapy. Metastasis is defined as a neoplastic lesion arising from a malignant tumor which is not in contiguity or in close proximity with the same tissue. Cutaneous metastases result from lymphatic embolization, hematogenous or contiguous dissemination or also direct implantation during surgical procedures.^{6,7} When the skin has metastatic deposits, it is an indication of advanced cancer and mostly it has involved other organs and hence it is a sign of poor prognosis.⁸

Various studies have been done on the cutaneous features of breast carcinoma. In a study by Lookingbill *et al.*, cutaneous metastasis was detected in 420 patients.⁹ In a study by Mordenti *et al.*, out of total 164 cases of cutaneous metastasis from carcinoma breast, commonest type of presentation was papules and nodules followed by telangiectatic carcinoma, erysipeloid carcinoma and carcinoma en cuirasse.¹⁰

Various types of lesions can be seen including nodules, papules, plaques, erysepeloid infiltration and carcinoma en cuirasse.¹¹ Carcinoma en cuirasse is the term generally applied to extensive infiltrating plaques resulting from cutaneous metastasis from cancer in other organs of the body. It is rare condition most commonly associated with breast carcinoma with local recurrence after mastectomy.¹² It is of diagnostic importance because it may be the first manifestation of undiscovered internal malignancy or first indication of an inadequately treated cancer. Fibrotic type of cutaneous metastatic spread to

the trunk and is known as “encasement of armor” or carcinoma en cuirasse, due to the development of hard, leathery plaque and carcinomatous nodules.¹³ These plaques are usually formed from the coalescence of hard carcinomatous nodules. Sometimes pronounced inflammatory reaction is seen also known as carcinoma erysipelotoides. Metastatic nodules are the commonest out of these. Sometimes these infiltrates can ulcerate forming ulcerated plaques. The commonest histopathological pattern in cutaneous metastasis is the enlarged nodule. It presents as solid aggregates of neoplastic cells surrounded by fibrosis, with tumoral cells typically disposed in glandular like structures.¹⁴ Inflammatory reaction is often minimal or even non-existent. Usually the patients survive for a short period of time, depending on the type and the staging of carcinoma. Hence, cutaneous metastasis are clinically important for the dermatologists, as these are warning signs which if timely detected, can help to reduce morbidity in a patient of carcinoma breast.

CONCLUSIONS

Dermatologists should realize the importance of cutaneous metastasis as these are forerunners of impending mortality. Most of the patients having cutaneous lesions are in an advanced stage of the disease. Moreover, the response to treatment with either chemotherapy or radiotherapy can be assessed by clearance or regression of these cutaneous metastasis. Our study also highlights the importance of early detection of carcinoma breast especially in male patients. Awareness should be created amongst male patients with carcinoma breast regarding early reporting and timely investigations. To conclude, early diagnosis

of these infiltrates helps in early treatment and ultimately prolonging life of these patients.

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