CUTANEOUS METASTASES OF BREAST CANCER: A CASE REPORT

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Abstract

5% of tumors from various primary sites metastasize to the skin. Common primary sites are colon, oral mucosa and breast. This patient was admitted for wide spread skin rash over her face, chest, abdomen and limbs. Incidentally, she was diagnosed with left breast cancer two years ago. A skin biopsy revealed cutaneous metastases of invasive ductal carcinoma. Cutaneous metastases should be considered in patients with a history of breast cancer presenting with an acute and persistent rash especially on the chest wall.

Keywords: Breast cancer, skin, invasive ductal carcinoma, metastasis

INTRODUCTION

The overall incidence of cutaneous metastases from various primary tumors is 5.3%⁴. Excluding melanoma, breast is the most common primary tumor. Other common primary sites are colon, rectum, oral mucosa and stomach⁵. This holds true in studies performed in both Asian³ and Caucasian¹ populations although the rates among Asians were relatively lower⁴.

Here we present a case of a patient with breast cancer who presented with cutaneous lesions that were initially thought to be due to a drug reaction.

CASE PRESENTATION

An 81-year-old women of Chinese ethnicity was admitted for a wide spread rash over her face (Figure 1), chest, abdomen and limbs (Figure 2) that was associated with low grade fever for one week. Incidentally, she was diagnosed with Stage 3B infiltrating ductal carcinoma of the left breast two years ago. Due to poor health, surgery was not performed and tamoxifen was started. A drug

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reaction was suspected as the cause of the rash and tamoxifen was stopped. However, the rash progressed rapidly to erythematous papules and ulcerating plaques with foul-smelling discharge (Figure 3). A skin biopsy was performed and came back as infiltrating ductal carcinoma consistent with cutaneous metastases of breast origin. Computerized tomography scan revealed extensive metastases to the lungs, liver and adrenal glands. The patient developed nosocomial pneumonia and acute renal failure. Her condition rapidly deteriorated and she passed away during the same admission.

DISCUSSION

The most common sites of cutaneous metastases from breast carcinoma are the chest wall (28.4%) and the abdomen (20.2%). This is thought to be due to their high body surface area and close proximity to the primary neoplasm. Similar origin of the cutaneous adnexa and lactiferous ducts from the ectoderm also provides a favourable environment for metastatic breast cancer cells.
Cutaneous metastases of breast cancer has been described in the literature to present in different ways such as nodules, alopecia neoplastica, carcinoma erysipeloides, carcinoma en cuirasse, zosteriform metastases and other rarer forms such as the granuloma pyogenic-like metastases variant. Nodular manifestation may appear as firm, solitary or multiple, pink to red brown nodules with or without ulceration. Alopecia neoplastica is hair loss secondary to metastases from a primary tumor to the scalp which normally presents as a plaque like or patchy lesions. They can appear as erythematous, well demarcated, smooth, painless and non-pruritic lesions on the scalp. Hematogenous spread is believed to be the cause. Carcinoma en cuirasse presents as an indurated, studded and erythematous infiltration on the chest wall which may be itchy and painful. This is due to tumor spread through tissue spaces and the lymphatic vessels. Carcinoma erysipeloides or also known as inflammatory breast carcinoma is very rare, comprising less than 1% of all cutaneous metastases. It is described as progressive, painful, reddish, warm patches with raised and well defined margins. Zosteriform pattern of cutaneous metastases normally present as painful, erythematous, papulonodular lesions in a dermatomal distribution. Such a pattern is a result of tumor cells spreading from the dorsal root ganglia along the perineural lymphatics of cutaneous nerves.

While cutaneous metastases can be the initial presenting symptom for patients with breast cancer, they usually present in association with breast cancer recurrence or advanced disease. Breast cancer patients with skin metastases only were found to have significantly better survival compared to those with visceral metastases or patients with cutaneous metastases from non-breast cancer primary sites.

**CONCLUSION**

This case highlights the importance to consider cutaneous metastases as a differential diagnosis in a patient with a history of breast cancer presenting with rapidly progressing skin lesions. A skin biopsy should be performed as part of the diagnostic work-up.

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**REFERENCES**


