

Case Report

Livedoid presentation of erysipeloid metastatic breast carcinoma: a case report and short review of the literature

表現為皮膚青斑的乳癌丹毒樣轉移：病例報告和簡短的文獻回顧

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Breast cancer cutaneous metastases (BCCM) have variable clinical presentations that are often non-specific, and usually occur in patients with advanced malignancies. Occasionally, BCCM precede the detection of internal metastases. We present a 41-year-old woman whose BCCM reappeared in a nonspecific, livedoid pattern four years after she underwent a mastectomy. Despite aggressive therapy and the fact that she had no internal metastases, there was a rapid deterioration in her illness. This case demonstrates the value of following up with patients to evaluate cutaneous lesions for signs of breast cancer in spite of their sometimes benign clinical representation.

乳癌皮膚轉移的臨床表現千變萬化，並以非特異性為主，常發生在晚期惡性腫瘤患者身上。偶爾，乳癌的皮膚轉移比內部轉移較早檢測到。我們陳述了一名41歲的女性，她在接受乳房切除手術四年後，乳癌的復發呈現為非特異性青斑模樣的皮膚轉移。儘管沒有內部轉移，再加上積極的治療，但她的病情仍迅速惡化。這病例證明跟進乳癌患者時一併檢查皮膚病變是否乳癌相關的價值，因有時看似良性的皮膚臨床表現實是乳癌轉移的病徵。

Keywords: Breast carcinoma, carcinoma erysipeloides, cutaneous metastases

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Introduction

Cutaneous metastases from internal malignancies are very rare and occur in 0.7% to 10.4% of all patients with visceral cancers. Breast carcinomas are one of the most common cancers that affect women, and after non-melanoma skin cancers, the second most common visceral malignancies.¹ Excluding melanoma, breast carcinomas are the most common types of cancer to metastasise to the skin.² Breast cancer cutaneous metastases (BCCM) usually occur late in the advanced stages

of the condition and are considered to be a poor prognostic sign. In regards to their clinical and histopathological presentation, BCCM are divided into various clinical types, though there are no definitive or ideal classifications due to overlapping in their clinical and histopathological features.³ This report presents a rare case of livedo-like erysipeloid BCCM.

Case report

A 41-year-old woman was referred from the Institute of Oncology and Radiology for cutaneous changes that had appeared a few weeks previously. According to the medical history, a total mastectomy of the right breast had been performed four years earlier due to invasive ductal carcinoma. The first cutaneous metastases appeared in the operation scar two years after the mastectomy and gradually regressed after treatment with chemotherapy.



Figure 1. Violaceous telangiectatic lesions on the abdominal wall (A) and right upper arm (B).

On examination, bright violet macules with telangiectasia were observed on the right abdominal wall and right upper arm (Figure 1). On palpation, the lesions were not tender and there was no increase in temperature. A reticular pattern of the lesions could be seen near the linea alba. Chest X-ray and ultrasound of the abdomen revealed no metastatic lesions. Computer tomography of the brain revealed no presence of malignancy. Routine blood and urine analysis were within the normal limits. A biopsy of the lesion on the abdominal wall showed a significantly oedematous papillary dermis. Lymphovascular vessels were dilated, lined with prominent epithelium and surrounded with a lymphocytic infiltrate. In the lumen of some of the vessels, groups of atypical, oval cells with irregular nuclei and abundant eosinophilic cytoplasm were observed. Groups of erythrocytes among the atypical cells were also observed (Figure 2). These tumour cells were positive for cytokeratin-7 and Her-2/neu receptor staining (3+) and negative for estrogen receptors (ER) and progesterone receptors. While treatment with chemotherapy was introduced, the patient defaulted after the disease began to rapidly deteriorate.

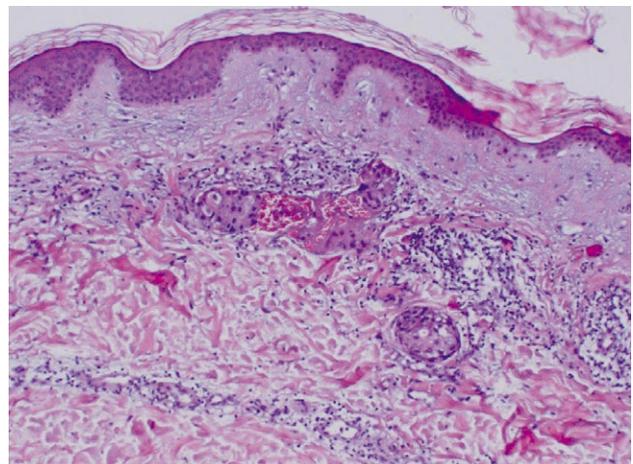


Figure 2. Histopathology revealed dilated vessels in the dermis with atypical cells and erythrocytes in their lumens.

Discussion

Cutaneous metastatic carcinoma is an unusual clinical finding as the skin does not appear to be the primary target organ for metastases. Cutaneous metastases occur more frequently in breast cancer than in any other visceral malignancy in women, with an incidence that exceeds 20%.²

Inflammatory breast carcinoma was first described by Rasch in 1931 as 'carcinoma erysipeloides' due to its similarity with erysipelas.⁴ Carcinoma erysipeloides (CE) is an uncommon type of cutaneous metastases that constitutes about 1% of the metastases from breast cancer. CE is characterised by erythematous, warm, tender and sharply demarcated plaques that resemble erysipelas. Our patient's lesions were livedoid, violaceous telangiectatic macules with reticular patterns on the periphery. The lesions were not tender or warm.

Cutaneous metastases of breast carcinomas usually appear three years after primary tumour diagnosis and are often considered to be a marker of tumour recurrence.⁵ Bittencourt et al presented a case where skin metastases appeared 13 years after the diagnosis of breast cancer.⁶ By comparison, cutaneous metastases precede the diagnoses of breast carcinomas in 2-5% of all cases. For example, Eskevari and Gharaei Nejad presented a case where CE was the first manifestation of breast cancer after an initial mammography and ultrasonography had failed to reveal a tumour mass in a patient's breast.⁷

According to Mordenti et al, mastectomy scars and anterior chest walls are the most common sites to be involved by BCCM in over 75% of patients. While the head, neck and extremities are also commonly affected, the tip of the nose and eyelids are affected by BCCM less frequently.⁸

Although CE lesions can be misdiagnosed as cellulitis, the absence of increased temperature,

leucocytosis and antibiotic treatment failure exclude the diagnosis of infection.² Navaratnam et al described a breast carcinoma metastasis that had previously been misdiagnosed as dermatitis for nine years.⁹ Similarly, Al Ammer et al presented a case of dermatitis-like CE during normal mammography and ultrasonography, where usage of potent topical corticosteroids attenuated erythema and delayed the making of the diagnosis.¹⁰

A Korean study of the clinicopathological correlation of cutaneous breast carcinoma using lymphatic and vascular markers, they found that the dilated vessels in inflammatory and telangiectatic metastases were all lymphatic and that intralymphatic tumour emboli had red blood cells in their lumen, which is in line with our results.³

An association between oestrogen receptors and the time to metastasis has been observed. Primary tumours with positive ER have significantly longer disease-free periods than ER negative neoplasms.⁶ While approximately 25-30% of patients with BCCM have had preceding distant metastases, another 25% have experienced local and distant treatment failure or developed distant metastases within a few months of the discovery of local recurrences.¹

We present a rare case of clinically atypical CE, which was a recurrence of BCCM without any distant metastases. Unfortunately, the poor response of this case despite implementation of very aggressive therapy, is in line with the poor prognosis previously reported with reported for BCCM.

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