CASE REPORT

Wolf in sheep’s clothing: a case of carcinoma erysipeloides

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Abstract

Cutaneous metastases of the breast carcinomas can present clinically as nodules, plaques and tumors (most commonly as nodules) as well as ‘erysipelas-like’ lesions are known as ‘carcinoma erysipeloides’. We want to share our experience in diagnosing a middle-aged lady with carcinoma erysipeloides secondary to breast carcinoma and her management as this is commonly misdiagnosed as cellulitis or scleroderma in general practice. Unfortunately, the patient had presented to us at a late stage with wide-spread metastasis, and as such, chemotherapy was the only available option. She expired after her third cycle of chemotherapy.

INTRODUCTION

Cutaneous metastasis of breast cancer most commonly manifest as nodules, although they may present as plaques and tumors [1]. An unusual cutaneous manifestation of breast and ovarian malignancy is carcinoma erysipeloides, which presents with features of cellulitis and is due to metastases within the skin [2, 3]. It is important to differentiate it from erysipelas, which is an infection commonly due to Group A-hemolytic streptococci because of the difference in management and implications. Prompt recognition of skin metastases allows for earlier intervention in treating the systemic spread of the disease [4]. Here, we share our experience of such a case where patient was misdiagnosed of having simple skin lesions and delayed the diagnosis.

CASE REPORT

A 43-year-old Indian lady presented with itchy rash with distinct indurated margins extending across her anterior chest, abdomen and parts of her neck. The affected skin was teetered to the underlying structures with some crusting over both breasts (Fig. 1). The rash had started from the right infra-mammary region and had gradually spread to this entire area over a period of ~2 years. There was no history of weight loss, fever or breast lump. She did not have diabetes mellitus or immunodeficiency. She was treated by general practitioners and dermatologists over this period with multiple oral and topical antibiotics and steroids, with no relief. Even topical antifungals and unknown indigenous emollients had been applied to her skin (which is quite a common practice in rural India) over this time. She also gave...
History of progressive spreading of erythema along with change of color and oozing for last 3–4 months. No definite mass was palpable in her breasts, but axillary lymph nodes were palpable on the right side. General and systemic examination showed evidence of pleural effusion on the right side. Her routine blood examinations were normal. We advised punch skin biopsies, which proved inconclusive.

Full-thickness skin biopsies from multiple sites were taken for histological exam and reviewed at multiple centers (Fig. 2). They showed clusters of pleomorphic malignant cells invading the papillary dermis, lymphatic channels and spreading in between the collagen bundles with positive immunostaining for cytokeratin 7, estrogen receptor (ER), gross cystic disease fluid protein 15 (GCDFP-15) and AE1/AE3 (Figs 3–5). Contrast enhanced CT scan (CECT) chest and abdomen showed moderate right-sided pleural effusion and suspicious mass in the right breast with multiple bony metastases (Figs 6 and 7). Examination of the pleural fluid showed a hemorrhagic effusion with plenty of pleomorphic cells suggestive of adenocarcinoma. Based on
radiological findings and histopathological evidence of metastasis, she was diagnosed as Breast Cancer with metastasis. Chemotherapy with Danorubicin and Etopocide along with supportive therapy including Zolundronic acid was started as palliative treatment after oncology revision. Unfortunately, she expired after her third chemotherapy cycle.

**DISCUSSION**

Since many diseases present with only skin manifestations of its internal disease, women with unexplained skin rashes should always be investigated for pathology in the breasts and ovaries among other things. In addition, breast cancer continues to be the second most common cancer among women [5]. Although cutaneous metastases from all carcinomas are rare, still it is most commonly found among women with breast cancer. Different authors have reported incidence of cutaneous metastases from breast carcinoma as 23.9–26.5% [6, 7]. Hence, lack of a fever, absence of leukocytosis and long history with such skin lesion not responding to antibiotics should alert the physician of a possibility of cutaneous metastasis. In a recent retrospective review by Mordenti et al. [8], 164 cases of skin metastases specifically from breast carcinoma were examined to determine the most common clinical and histopathological presentations. Skin papules and/or nodules were found in 80% of patients, telangiectatic carcinomas in 11%, erysipeloid carcinomas in 3%, ‘en cuirasse’ carcinomas in 3%, alopecia neoplastica in 2% and a zosteriform type in 0.8%.

In 1931, Rasch introduced the term ‘carcinoma erysipeloides’ to denote the erysipelas-like red indurated skin with white sharply demarcated borders in association with skin metastases [3]. As a result of diffuse invasion, there is dermal lymphatic blockage, edema and erythema of the skin. The clinical progression usually involves rapid enlargement of the affected area without skin ulceration [9]. Although quite uncommon, this unusual clinical finding may become apparent at any stage of the disease starting from the initial presentation to even after the primary tumor has been excised. Our patient had some atypical features like crusting, which we thought was due to application of multiple chemicals (medicinal as well as indigenous) and her continuous itching. Differentiation of this entity from erysipelas and cellulitis in clinical practice is important as early diagnosis (when the lesion is limited) could be treated by local wide margin excision. Case reports of metastatic skin lesions where it was misdiagnosed as dermatitis or herpes zoster highlight the variable clinical appearance of breast carcinoma cutaneous metastasis (BCCM) [10–13]. Unfortunately, when the patient presented to us, the disease was so wide spread that the prognosis was expected to be bad and systemic chemotherapy was the sole option. Although our patient gives a history of itching for 2 years, it seems to be unlikely due to lack of other systemic manifestations during the period. However, definite aggravation for last 4–5 months may have correlation of other sites of systemic involvement. Such long period of definitive medical unattendness and indigenous medicine use without documentation makes it difficult to delineate the duration other than to relay on patient’s narrative.

In conclusion, there is a lesson to be learnt here, which is, dermatologists and physicians need to be aware of these erysipelas-like cutaneous metastases from breast carcinomas and other malignancies for prompt diagnosis and treatment [1], including local wide excision of the skin lesion. Dermatologist should be cautious whenever encountering erysipeloides like skin lesions particularly in older patients as this may be a distant metastasis of internal malignancy.

Skin metastasis may present earlier than other metastatic complications, and dermatologist may be the first consulting specialist to encounter the same.

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GUARANTOR
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