



Invasive duct carcinoma of the forearm; a rare case of distant, isolated 'carcinoma en cuirasse'

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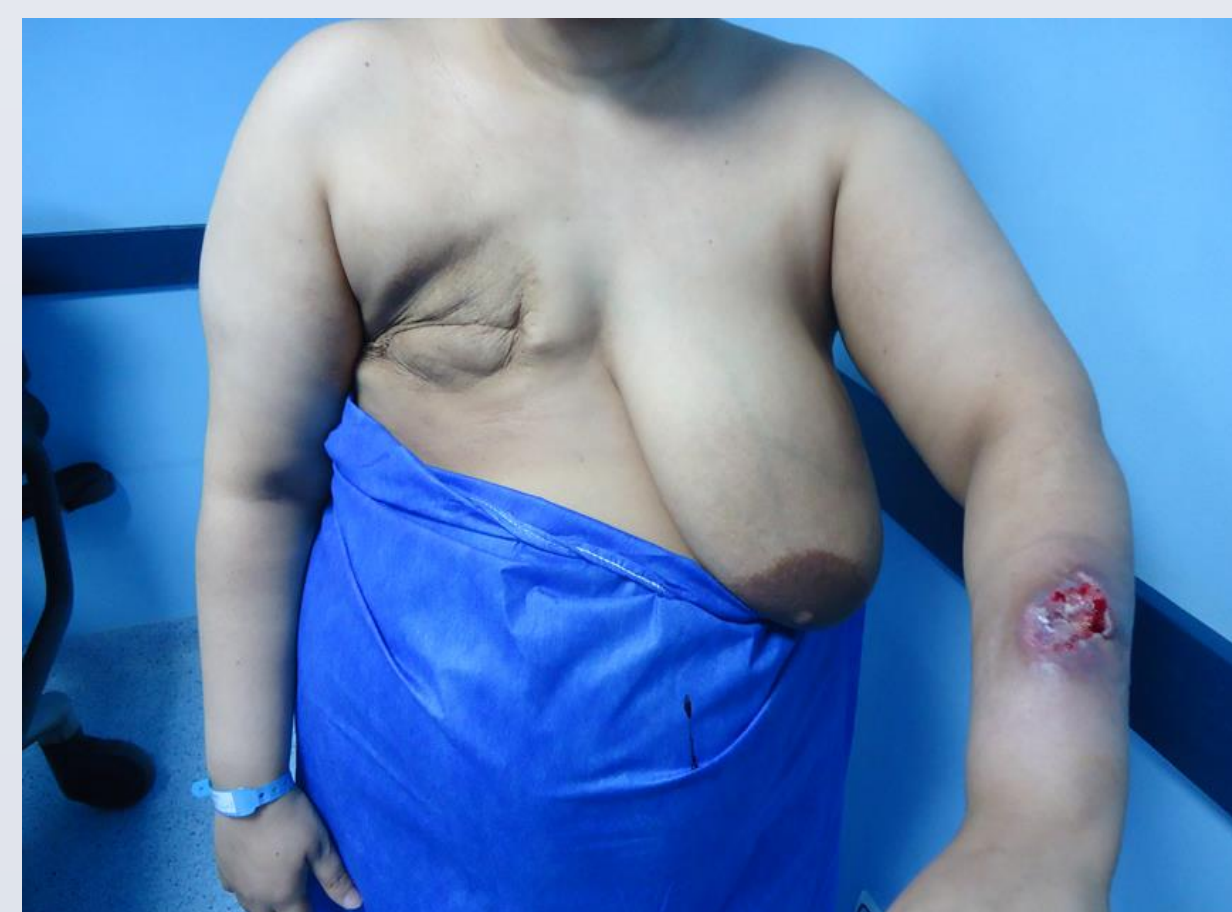
INTRODUCTION

Breast cancer involving the skin is considered an advanced disease. However, rare case reports have described ipsilateral cutaneous metastasis following successful treatment of primary breast cancer. The explanation of such mechanism when affecting the ipsilateral side remains either vascular or lymphatic permeation. Contralateral cutaneous breast cancer has barely been reported before and hence the nature and management of such rare cases remains a challenging subject to the breast surgeon.

CASE PRESENTATION

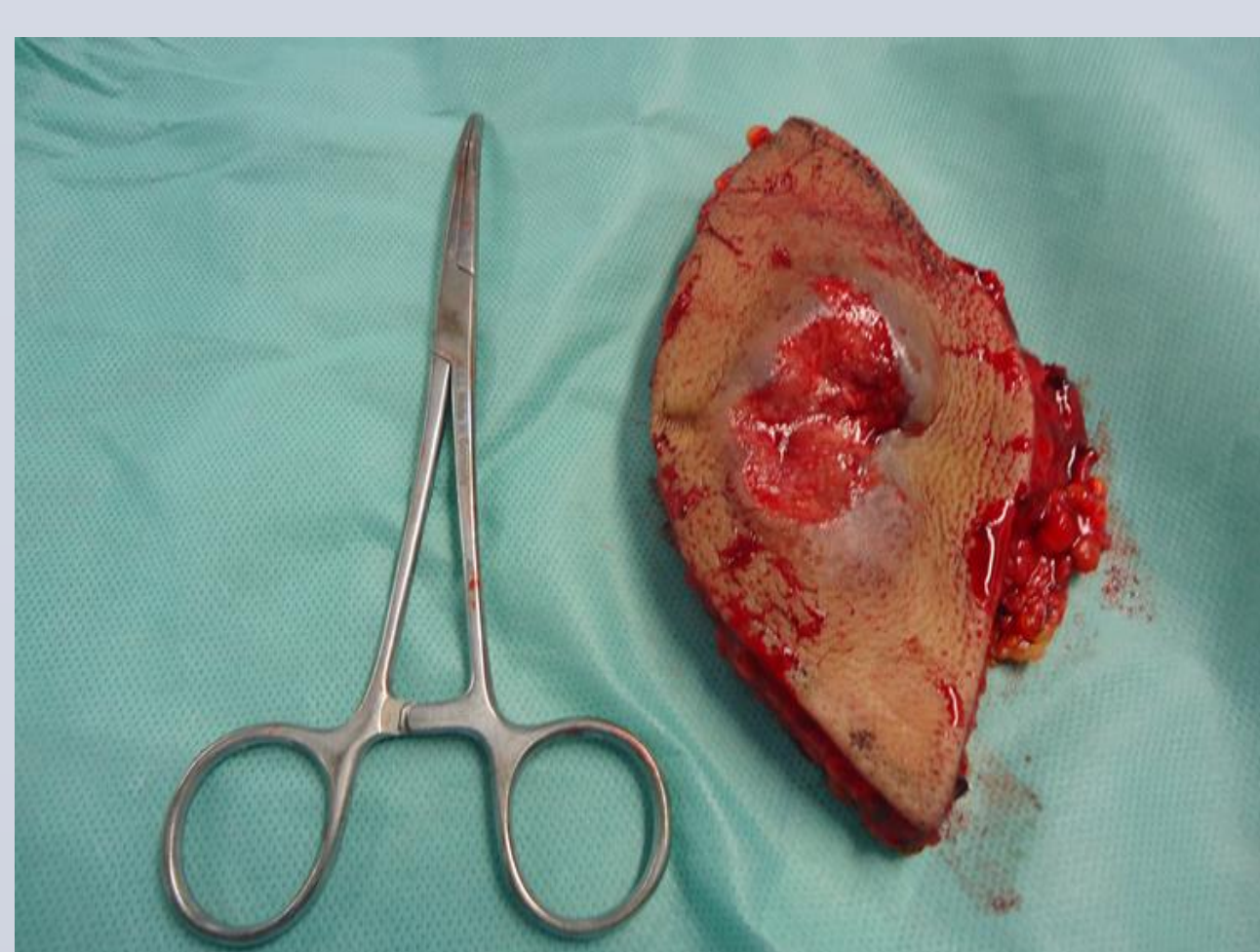
A 36-year-old female presented to the surgical outpatient clinic of the National Cancer Institute (NCI-Cairo University) with a rapidly growing fungating left forearm cutaneous lesion. Her past medical history included right breast cancer that was treated with right-sided mastectomy followed by chemotherapy and radiotherapy. The rest of her past medical history was insignificant. She finished such treatment 2 years before her latest presentation.

Clinical examination revealed a fungating, irregular ulcer that bled easily on touch involving the left forearm. The ulcer was nearly 7cm x 9cm in maximum dimension, having irregular outline and fixed to the underlying extensor forearm muscles.



Examination of the left breast including the axilla revealed no suspicious masses or cutaneous lesions. Incisional biopsy showed the presence of metastatic duct carcinoma. Complete metastatic work-up including left breast imaging (digital mammography and ultrasound) and computerized tomography (CT) of chest, abdomen and pelvis came all back as negative for the presence of any underlying disease. The case was discussed in our breast multidisciplinary (MDT) team meeting and plan for resection was formulated.

The patient had surgery to excise the left forearm ulcer. The raw area left following excision was covered using a split thickness graft. Postoperative gross and microscopic pathology confirmed our primary diagnosis (distant metastatic cutaneous invasive duct carcinoma). The patient had uneventful postoperative course and was discharged on the 3rd postoperative day. She now remains disease free for almost 6 months with no evidence of local recurrence.



DISCUSSION

The skin is an uncommon site for distant metastasis; when it is present the most common sources are breast, lung, and colon. Metastasis generally occurs after such neoplasm had been discovered and indicates disseminated disease with a poor prognosis. Carcinoma en cuirasse is a rare described form of metastatic cutaneous carcinoma (0.6%-10%). The presence of which is strongly linked with local recurrence post mastectomy; however, it may rarely appear as the presenting feature of breast carcinoma.

During the early weeks of embryonic development, the mammary milk lines extend from the axillary region to the groin. In normal development, most of the mammary ridges resolve except for two segments in the pectoral region, which later on become the breasts. Failure of any portion of the mammary ridge to involute will result in the existence of ectopic breast tissue. Ectopic breast tissue is therefore subject to the same hormonal influence and range of diseases as the pectoral breast tissue. It is for this brief embryological background that we have excluded the possibility of development of our described metastatic cutaneous deposits within ectopic breast tissue as such deposits appeared outside the milk line territory.

None of the large scale studies from the past three decades that have described cutaneous metastasis⁶⁻⁸ have mentioned involvement of contralateral distant sites with metastatic breast cancer in the absence of local ipsilateral disease. The management of such cases remains a challenging issue due to the lack of similar scenarios. One could easily argue the benefits of upfront chemotherapy versus upfront surgery; however our MDT decision was to consider upfront surgery aiming for a better quality of life. Moreover, the lack of local recurrence, active metastatic disease elsewhere and the rapid course of the fungating cutaneous deposit have altogether encouraged the MDT committee to delay chemotherapy till surgery is done.

It is difficult to explain why such a cutaneous deposit has evolved distantly to the primary cancer site; yet, we can only speculate the presence of extensive network of breast lymphatics that might have cross-communicated over the course of time.

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