

Unusual form of cutaneous infiltration by cancer

Alfredo Zucchi, Francesca Aimi, Alessandra Cardis, Marcello Santini, Elena Tognetti, Fabio Zambito-Spadaro, Giuseppe De Panfilis, Giuseppe Fabrizi

Unit of Dermatology, Department of Surgical Sciences, Parma University, Parma, Italy

Abstract. Breast cancer is the most common visceral neoplasm which metastatizes in skin. Skin infiltration by breast cancer may appear as various types of neoplastic/inflammatory lesions, including plaques, pigskin-like areas, scirrhous morphea-like lesions, nodules, zosteriform lesions, and papulovesicles. An unusual form of cutaneous infiltration involving a mammary region bearing a post-mastectomy surgical skin scar is herein described: interestingly, such a cutaneous cancer involvement could not be included in the above classification, because it merely consisted of red-purple areas dealing with small telangiectasias, without any sign of inflammation. (www.actabiomedica.it)

Key words: cutaneous metastatic disease, cutaneous oncology, cutaneous surgery, skin infiltration by cancer, breast cancer

Introduction

Cutaneous infiltration by breast cancer may present as various types of neoplastic/inflammatory lesions, including plaques, pigskin-like areas, scirrhous morphea-like lesions, nodules, zosteriform lesions, and papulovesicles (1-3). We herein describe an unique form of skin infiltration by cancer showing no such signs of inflammation.

Case Report

An 86-year-old female patient required evaluation at our dermatologic Department because of one-month slowly progressive enlargement of red-purple areas, with irregular shape, localized at the chest between the right armpit and the sternal region; such areas were diagonally crossed by a fifteen-centimeters-long post-surgical scar (Fig. 1), due to a mastectomy performed two years before. Induration, local heat, necrosis or scratching lesions were, however, absent. The red-purple areas, especially evident at the



Figure 1. The right mammary region shows a post-mastectomy surgical skin scar (arrows) and many telangiectasic areas. Note that inflammatory signs are lacking, and the red-purple areas are due exclusively to telangiectasias, other than erythema

periphery of the mammary region, consisted of many, small telangiectasias. Following a skin biopsy, merely the invasion of skin dermal lymphatics by breast cancer cells was observed by histopathology; no inflammatory signs were, however, histopathologically detectable.

Discussion

Cutaneous infiltration by breast cancer may clinically appear as different skin lesions: inflammatory plaques (carcinoma erysipeloides); edematous, pigskin-like large areas (cancer "en cuirasse"); scirrhous, morphea-like lesions; true nodules (either solitary, or multiple, or ulcerated); zosteriform; yellowish to reddish or violaceous papulovesicles (carcinoma telangiectoides) (1-3). By contrast, none of such neoplastic/inflammatory lesions were detectable in the present patient; rather, only thin telangiectasias were observed at the periphery of the post-surgical mammary area. Specifically, no papulovesicles, that are typical of the so-called carcinoma "telangiectoides" (4), were observed in this patient.

On the other hand, as far as histopathology is concerned, all the above mentioned types of cutaneous infiltration by breast cancer may easily be differentiated from the present one (1-3), other than carcinoma erysipeloides: in fact, carcinoma erysipeloides is known to involve lymphatic vessels, in a similar fashion the lymphatic vessels were involved in this patient. Nevertheless, in carcinoma erysipeloides the lesions are "inflammatory" (1), whilst absolutely no sign of inflammation, clinical or histopathological, was detected in the present patient. Specifically, the red-purple color detectable at the periphery was not due to erythema, because merely telangiectasias were evident (Fig. 1).

Conclusion

The presence of numerous telangiectasias, and, especially, the absence of standard neoplastic/inflammatory evidences render extremely unusual this presentation of cutaneous infiltration by cancer. As a consequence, even absolutely uninflamed cutaneous lesions localized near the post-mastectomy skin scars should be considered as post-surgical cutaneous infiltrations by cancer.

References

1. Marcoval J, Moreno A, Peyri J. Cutaneous infiltration by cancer. *J Am Acad Dermatol* 2007; 57 (4): 577-80.
2. Burns DA. The breast. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. *Rook's textbook of dermatology*. Oxford: Wiley Blackwell, 2010: chapter 70; 1-17.
3. McLean DI, Haynes HA. Cutaneous manifestations of internal malignant disease: cutaneous paraneoplastic syndromes. In: Freedberg IM, Eisen AZ, Wolff K, Austen KF, Goldsmith LA, Katz SI, editors. *Fitzpatrick's dermatology in general medicine*. New York: McGraw-Hill Co, 2003: 1783-96.
4. Lin J-H, Lee J Y-Y, Chao S-C, Tsao C-J. Telangiectatic metastatic breast carcinoma preceded by cuirasse metastatic breast carcinoma. *Br J Dermatol* 2004; 151 (2): 523-4.

Accepted: 22th April 2012

Correspondence: Fabio Zambito-Spadaro, MD
Unit of Dermatology, University Hospital of Parma
Via Gramsci 14, I-43126 Parma (Italy)
Tel. +39-521-033562
Fax +39-521-702323
E-mail: fabiozambitospadaro@gmail.com