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Case Report

Rare Clinical Presentation of Breast Cancer Metastasis: Carcinoma in Cuirasse

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Abstract: Breast cancer metastases in the skin can have different clinical presentations, breast carcinoma in armor has an exceptional presentation. It is called "cuirasse carcinoma" because of its resemblance to the armor of cavalry soldiers, it is characterized by the presence of erythematous plaques of fibrous consistency that can become ulcerated, on the skin of the thorax. It usually appears between 60 and 80 years of age, as a first sign or as part of metastasis. When associated with metastasis, it is associated with a history of chemotherapy, radiotherapy or mastectomy. Treatment can be given with electro-chemotherapy, photodynamic therapy, intra-lesional therapy, hormonal therapy and local therapy with the aim of palliating the disease.

Keywords: Carcinoma, Cuirasse, Breast-Cancer, Metastasis.

INTRODUCTION

Cutaneous metastases have an incidence ranging from 2-9%, may present as an initial sign of the disease, mostly represent advanced stages indicating relapse and about 17.95% are of unknown primary [1].

Cuirasse carcinoma, scirrhous carcinoma or pachydermia was described in 1838 by Velpeau and was so named because of the similarity of the lesions to the armor of cavalry soldiers It is a diffuse cutaneous and subcutaneous carcinomatous infiltration attributed to skin metastases in breast cáncer [2].

The age of presentation varies according to the age of presentation of the cuirasse carcinoma, but is usually between 60-80 years, most patients are women with a diagnosis of previous breast cancer who underwent mastectomy with or without radiotherapy or chemotherapy, cases have also been described in which there is no history of mastectomy or even cases in men [3-5].

The topography of breast cancer metastases in the skin is usually in the site where mastectomy was performed or in the anterior region of the thorax [3, 4]. The form of dissemination is usually by tumor extension, lymphatic dissemination, hematogenous, contiguous or iatrogenic implantation [1].

The classic clinical presentation is a plaque with solitary or multiple papules and nodules that enlarge and coalesce forming diffuse indurations with well-defined borders, on an erythematous or bluish-red surface that may ulcerate, in some cases asymptomatic and in others presenting pruritus, pain, bleeding, foul-smelling discharge that may become infected [1-3].

The pathogenesis is not well elucidated but it is attributed to a multifunctional tumor promoter signaling molecule called pleitrophin, producing induration attributable to a probable lymphatic obstruction; this together with the fibrotic process secondary to the surgical event and chemotherapy/radiotherapy to which most of the patients were submitted would explain the chronic evolution of the condition. Other theories comment that perineural lymphatic dissemination would cause certain dermatomes to be affected, which has been associated with neuropathic pain [1, 3, 4].

Histopathology describes fibrosis and tumor cells which tend to form a "single file" being penetrated between collagen bundles, immunohistochemical staining can be performed with an aspartic protease called cathepsin D which is mostly expressed in this carcinoma [3].

Electrochemotherapy, photodynamic therapy, intralesional therapy, hormonal therapy and local therapy can be offered for palliation [2, 6, 7].

CASE PRESENTATION

55-year-old woman who presented with dermatosis localized to the trunk affecting the anterior thorax, consisting of an erythematous-infiltrated plaque, 60x50 cm, irregular shape, well defined, whose surface was with exulcerations some covered with granulation tissue, others with slough and crusts, accompanied by serohematic secretion, not fetid, associated with stabbing pain in intensity 10/10 visual analog scale, referred 2 years 9 months of evolution, which began in the left breast and progressed to the rest of the anterior thorax, received treatment with buprenorphine patch, cephalosporin, silver sulfadiazine and nitrofurantoin.

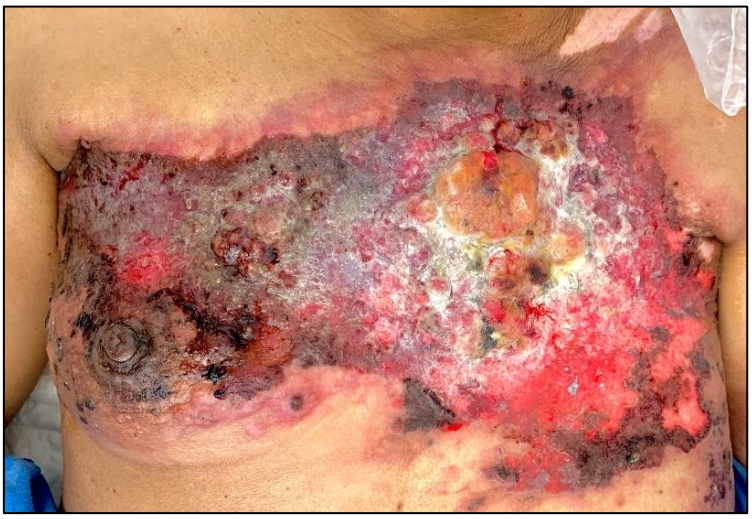

Image 1: A) Breast cancer metastasis, Cuirasse carcinoma

She had a history of breast cancer 8 years after diagnosis, received 28 initial cycles of chemotherapy with lapatinib and capecitabine, followed by 20 cycles of trastuzumab and docetaxel, 25 cycles of radiotherapy and radical breast mastectomy.

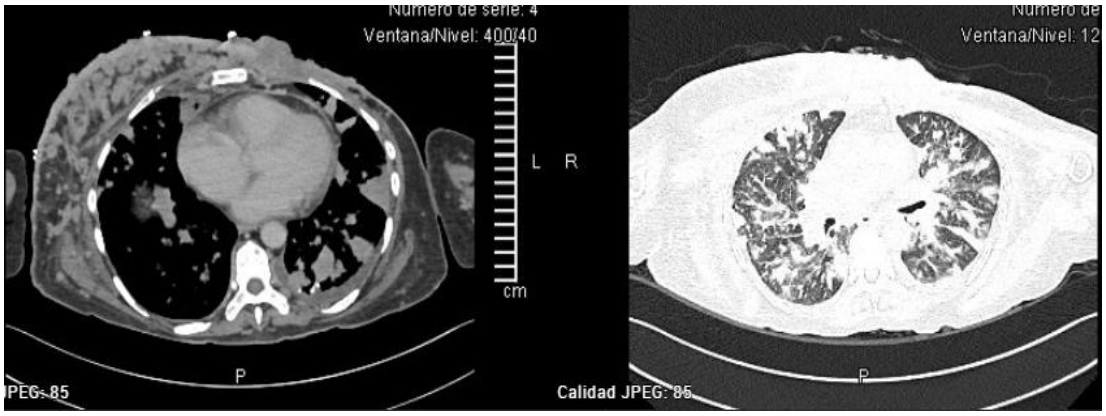

Image 2: Contrasted tomography of the thorax, abdomen and pelvis with multiple metastases to skin, muscle and lung

A histologic study was performed, showing an infiltrated epidermis and dermis with carcinoma implant, and immunohistochemistry was performed with HER2 positivity, compatible with the diagnosis of ductal carcinoma.

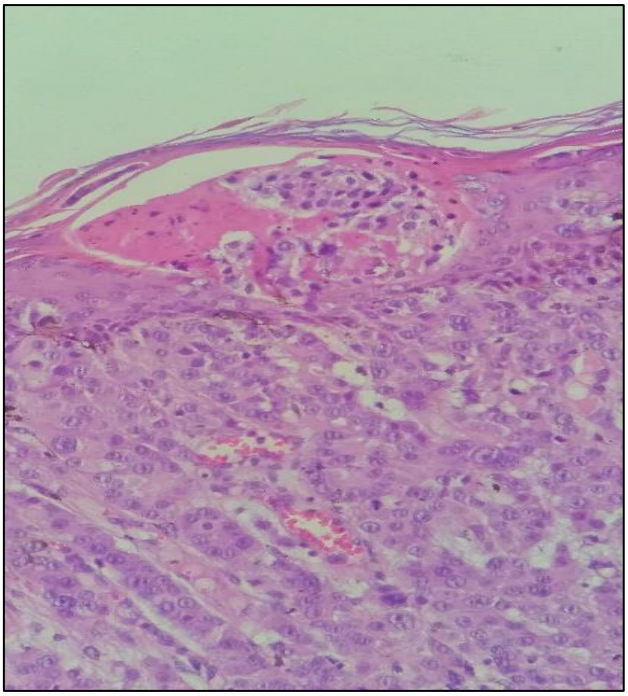

Image B) Photomicrograph of histopathological study stained with HE

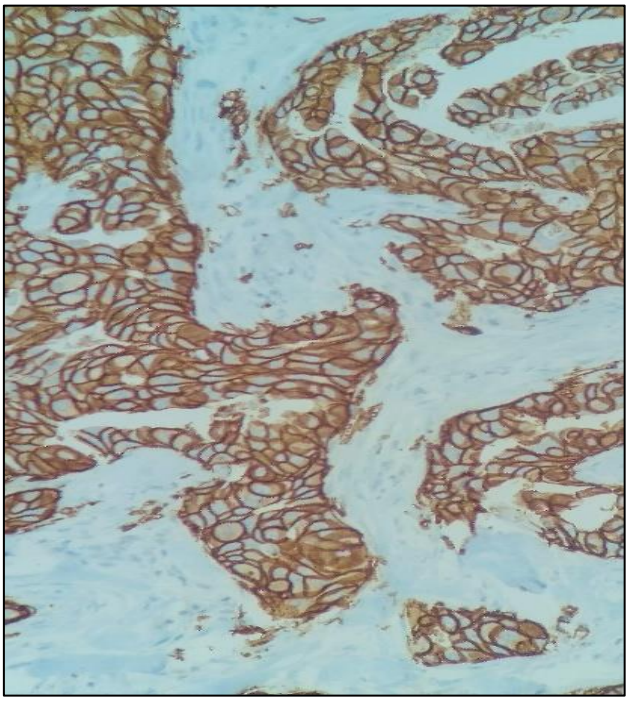

Image C) Immunohistochemistry

Upon admission to the hospital, she referred to accept treatment for pain relief, and was managed with pain clinic and palliative care, two days later the patient died.

DISCUSSION

Breast carcinoma is one of the main cancers affecting women and with the highest mortality rate. These cutaneous metastases can be shown by primary gastrointestinal tract, renal, lung carcinoma considered more frequent in men and in women by breast carcinoma, being the most preferred site after melanoma [1, 3].

The topography of breast cancer metastases in the skin is usually in the site where mastectomy was performed or in the anterior region of the thorax as in the case of our patient, although there are other infrequent sites such as head, neck, extremities, eyelids and even the tip of the nose [3, 4].

The clinical varieties described are papulo-nodular 80%, telangiectatic 11%, erysipeloid 3%, shell 3%, neoplastic alopecia 2% and zosteriform 0.8%, melanoma like, subungual. The described patient progresses to a variety in shell considered rare [1, 3, 8].

The time of diagnosis between breast cancer and breast carcinoma is variable but on average it is 3 years, some cases report up to 17 years later [1, 9]. Our patient was 1 year after diagnosis of breast cancer, with a history of radical mastectomy and undergoing chemotherapy treatment with CBP/gemcitabine, so its progression was rapid compared to the literature, probably secondary to the late diagnosis of the primary. The clinical presentation of our patient was classic, the intense pain in the lesions was striking, which could coincide with the theories mentioned above, this picture was chronic until in recent months the infiltration had progressed.

As for the treatment for the fibrosis described in these lesions, they contribute to a decrease of the vasculature, answering why chemotherapy is of little use in their treatment. Surgical excision is usually not feasible because this tumor reaches a considerable size, as in the case presented in which the surgical oncology service was consulted and commented that given the extension it was not a candidate [2, 3].

Since she was a triple negative patient, she was not a candidate for hormonal treatment, so electro-chemotherapy was requested at a first level since we do not have this line of treatment, unfortunately it was not possible to grant it since the patient and her family requested voluntary discharge.

As part of the treatment, electrochemotherapy, photodynamic therapy, intralesional therapy, hormonal therapy and local therapy can be offered with the focus of palliating the disease, for the primary tumor it is necessary to perform immunohistochemistry studies and determine whether there is any positive tumor marker that treatment.

CONCLUSION

Recognizing the various cutaneous presentations related to breast carcinoma metastasis allows for timely diagnosis and treatment, which would have an impact on the prognosis and, above all, on the quality of life of patients.

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