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Case Report

Skin Metastases from Breast Cancer: Case Report

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Abstract: Breast cancer is the second most common cancer diagnosed in women. Skin metastases result from infiltration of the skin due to cell proliferation. The incidence of cutaneous metastases varies from 0.6-10.4%. We present a 52-year-old woman diagnosed with infiltrating ductal carcinoma triple-negative, who presented with a localized dermatosis that affects the chest with a erythematous plaque, nodular and ulcerated in appearance, with irregular and well-defined edges. Breast carcinoma can present metastases in skin, recognizing the diversity of clinical presentations in a timely manner, is the key to a timely diagnosis and reducing mortality.

Keywords: Breast, Cancer, Tumor, Skin, Metastases, Proliferation, Carcinoma.

INTRODUCTION

Breast cancer is the second most diagnosed cancer in women, with a high mortality rate due to its high metastatic capacity [Siegel R *et al.*, 2024]. Cutaneous metastases result from infiltration by cells from the initial tumor, with an incidence ranging from 0.6-10.4% [Acuña H *et al.*, 2017]. Various cutaneous morphologies associated with breast cancer have been documented: metastatic nodular carcinoma, telangiectatic metastatic carcinoma, inflammatory or erysipeloid metastatic carcinoma, carcinoma in cuirasse, Paget's disease of the nipple and areola, and zosteriform metastases [Acuña H *et al.*, 2017, Martinez D *et al.*, 2021]. A clinical case of metastatic nodular carcinoma is presented.

CASE PRESENTATION

A 52-year-old woman with no chronic-degenerative history presented with triple-negative infiltrating ductal carcinoma (IDC) with squamous metaplasia EC IV, and pulmonary metastases of 1 year evolution. She underwent right radical mastectomy with IDC biopsy result; computed tomography showed pulmonary nodules and mediastinal adenopathies. She received chemotherapy with carboplatin/gemcitabine; Three months later evidence of local recurrence was shown, biopsy reported desmoplastic reaction, comedonecrosis, and lymphovascular invasion. She was admitted to internal medicine service in poor general condition, with active bleeding over the entire surface of the tumor and purulent discharge. On examination, localized dermatosis affecting the anterior aspect of the right hemithorax extending to cervical region and left breast was observed, consisting of an erythematous, nodular, ulcerated plaque with irregular and well-defined borders, measuring 23x26 cm in diameter. During her stay, she experienced generalized deterioration, requesting voluntary discharge, and was lost to follow-up.

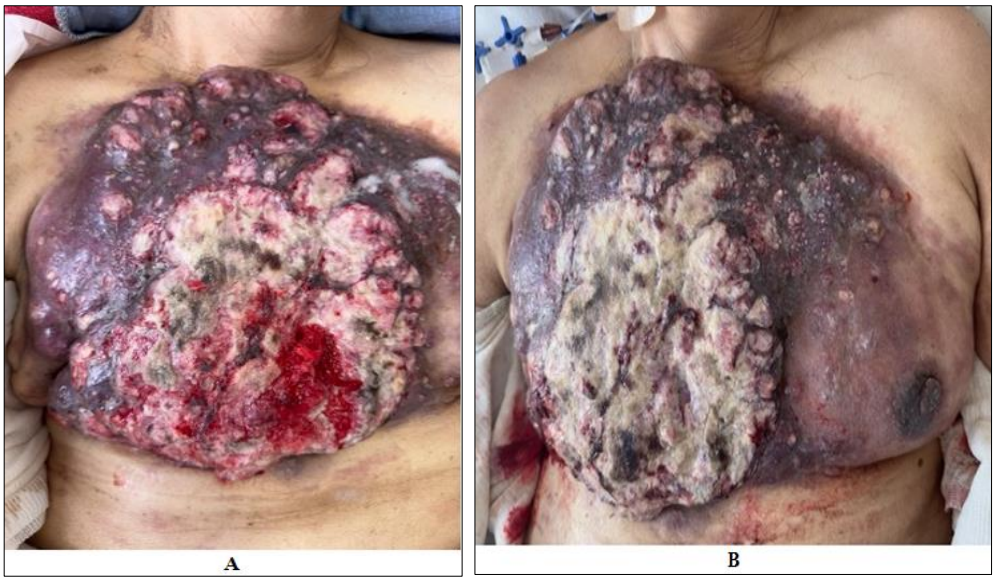

Figure 1. A): Localized dermatosis on the anterior right hemithorax characterized by a nodular erythematous-purple plaque, ulcerated areas and granulation tissue with irregular and well-defined borders extending to the left breast. B) Localized dermatosis on the anterior hemithorax characterized by nodular erythematous-purple plaques with irregular and well-defined borders

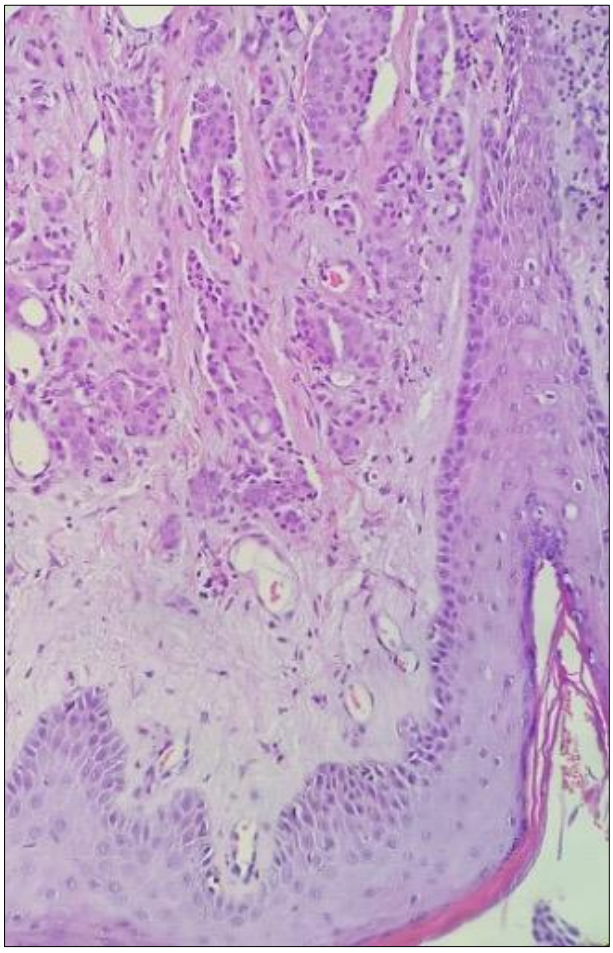

Figure 2: H&E (10x) Ductal carcinoma infiltrating into the papillary and reticular dermis

DISCUSSION

Breast cancer is the leading cause of cancer-related death in women worldwide [Acuña H *et al.*, 2017]. Metastases are associated with advanced disease stages; however, they can present as the first manifestation of recurrence. Cutaneous

metastases are an indicator of poor prognosis, occurring between 6 months to 4 years after diagnosis [Nathanson S *et al.*, 2021]. They result from direct infiltration of malignant cells into the skin, with a low incidence ranging from 0.6-10.4%. There are three dissemination pathways: hematogenous, lymphatic, and contiguous. Mechanical factors play an important role, allowing direct access to circulation and epithelium invasion [Nathanson S *et al*, 2021,5]. They can occur in any body area, most frequently in the chest and abdomen (75% of cases) and less commonly on the scalp, upper limbs, and face (25% of cases) [Acuña H *et al.*, 2017, Nathanson S *et al.*, 2021]. There are seven morphologies of cutaneous metastatic presentation, with the most common being nodular metastatic carcinoma, as described in this case. It is characterized by superficial or subcutaneous nodules, single or multiple, with a violaceous or reddish color [Acuña H *et al.*, 2017]. Treatment is determined by Her2 receptor status, recurrence rate, and site of metastasis. There is still no standard treatment for triple-negative breast cancer, which, due to its aggressive behavior, exhibits high recurrence and mortality rates. The average survival after diagnosis is around 31 months. Recognizing the wide diversity of clinical presentations of cutaneous metastases and considering them in the differential diagnosis is key for diagnosis and treatment to reduce mortality [Siegel R *et al.*, 2024, Nathanson S *et al.*, 2021, Park M *et al.*, 2022].

CONCLUSION

Breast carcinoma is a common condition that can metastasize to the skin, with nodular metastatic carcinoma being the most common variety. It often presents as a chronic condition, and the extent of the lesions complicates treatment. Various therapies can be used to palliate symptoms; however, there is still no first-line therapeutic strategy. Patients should undergo close monitoring of the disease even if they are in remission, as the skin is a frequent site of metastasis. This approach can bring clinical benefits and improve their quality of life.

Conflict of Interest: The authors declare that there are no conflicts of interest at the time of publication of this article.

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