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Post-treatment morphea in breast cancer: a case report

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Objective: Morphea, or localized scleroderma, is a rare connective tissue disorder characterized by cutaneous sclerosis and variable tissue involvement. It can be clinically classified based on depth, and the superficial or deep plaque form is the most common in adult patients. **Methods:** The etiology remains unclear, with the main hypotheses involving autoimmunity and genetic mosaicism. Although benign, the progression of local infiltration, nerve, and even internal organ involvement in morphea may lead to irreversible functional impairments. **Results:** A 38-year-old female patient was seen in a private outpatient clinic with an 8 cm nodule in the upper quadrant of the left breast, a palpable axillary node, and suspicious findings on the mammogram. A core biopsy revealed moderately differentiated invasive ductal carcinoma. The proposed treatment included neoadjuvant chemotherapy followed by quadrantectomy with axillary lymph node dissection and adjuvant radiotherapy. One month after surgery, the patient presented a tumor-like lesion at the surgical scar site, and biopsy demonstrated dense collagen dermis infiltration involving the pili muscle and interlobular septa, while magnetic resonance imaging revealed significant thickening of the skin, parenchyma, and local musculature, associated with a cystic-solid lesion. The patient was referred to a dermatologist, who started treatment with hydroxychloroquine sulfate 400 mg and halobetasol propionate 0.05% cream for topical use, resulting in visible improvement of the lesion. The patient is currently undergoing hormone therapy with semiannual follow-ups jointly with the rheumatology team due to the risk of local infiltration and extracutaneous manifestations. **Conclusion:** The treatment of morphea remains under discussion. Although few studies have demonstrated efficacy, high-potency topical corticosteroids, immunosuppressants, and even phototherapy have been considered viable options, and treatment choice is based on infiltration severity. Although rare, morphea impacts post-surgical follow-up in breast cancer patients, especially considering the absence of documented cases in the literature describing a similar presentation at carcinomatous lesion sites.

Keywords: localized scleroderma; breast cancer; segmental mastectomy; adjuvant radiotherapy.