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QUIZ SECTION

Progressive Refractory Ulcer of the Nipple: A Quiz

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A 50-year-old woman presented with erosive erythema and effusion on the right nipple one year previously, which gradually became ulcerated and painful. One month after the initial presentation, the ulcer was excised by a breast surgeon. Histopathological examination of the resected tissue revealed non-specific inflammation with no evidence of malignancy. The wound healed completely, but an ulcer reappeared at the same site 3 months later. The same surgical operation was performed again and the wound healed, but the ulcer reappeared 2 months after that operation.

More than 6 months later the patient was finally referred to our hospital with an ulcer on the right breast. Examination revealed an ulcer approximately 3 cm in diameter in the right areola (Fig. 1). Bacterial, fungal and mycobacterial cultures from the ulcer were all negative. Histopathological observations of a skin biopsy from the edge of the ulcer showed necrosis of the epidermis forming the ulcer, and mixed inflammatory cell infiltrate with abscess formation at the base of the ulcer. The patient had been healthy except for hyperlipidaemia and a liver cyst.

What is your diagnosis? See next page for answer.

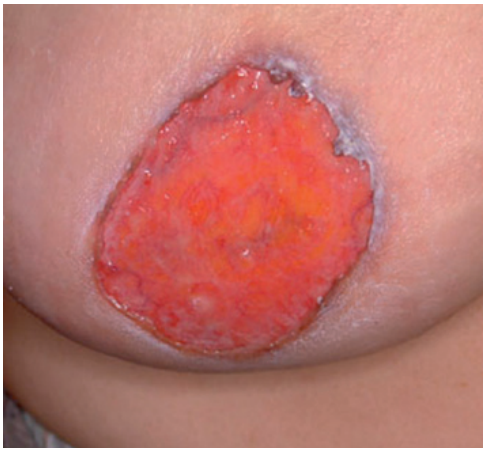

Fig. 1. Painful ulcer of the right nipple.

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Progressive Refractory Ulcer of the Nipple: Comment

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Diagnosis: Pyoderma gangrenosum

At first, severe mastitis and invasive breast cancer were considered as a differential diagnosis for pyoderma gangrenosum (PG) of the breast.

The patient was treated with oral prednisolone, 0.5 mg/day/kg, topical corticosteroid ointment applied to the right side of the ulcer and tacrolimus ointment applied to the left side of the ulcer. Her pain diminished dramatically, and the ulcer epithelialized on both the right and the left sides. The wound healed completely 6 months after the start of the medication, at which time the patient stopped taking prednisolone (Fig. 2). Nine months after stopping the prednisolone, there has been no recurrence.

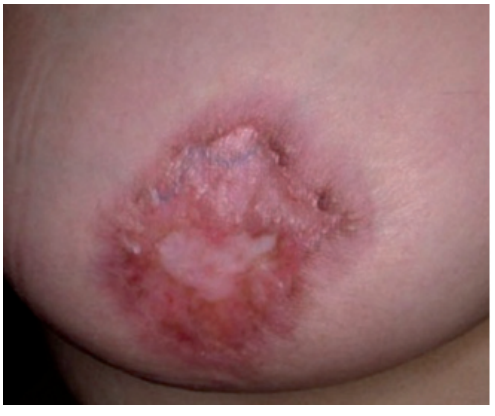

Fig. 2. Complete healing after 6 months of systemic corticosteroid treatment.

PG is a relatively rare non-infectious neutrophilic dermatosis induced by minor skin trauma or underlying systemic disorders (1, 2). For early and mild PG lesions, several kinds of treatment, including topical or intralesional corticosteroids or topical tacrolimus, are reported to be effective (2). Systemic corticosteroids and/or cyclosporine appear to be effective in most cases and should be considered as the first-line therapy (3).

PG can affect any site of the body, but it is most common in the lower limbs. However, its occurrence on the breast is extremely rare. To our knowledge, only 28 cases of PG on the breast have been reported, 22 of which developed after injury, skin biopsy or operation such as mammaplasty (4). To our knowledge, only one case of PG of the breast without any skin trauma or underlying systemic disease has been reported previously (5).

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