Eczematous skin lesion with nipple destruction

Arun C. Inamadar

Department of Dermatology, Venereology and Leprosy, SBMP Medical College, Hospital and Research Center, BLDE University, Bijapur, Karnataka, India

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Address for correspondence:
Prof. Arun C. Inamadar, Department of Dermatology, Venereology and Leprosy, SBMP Medical College, Hospital and Research Center, BLDE University, Bijapur - 586 103, Karnataka, India.
E-mail: aruninamadar@rediffmail.com

A 45 year old female patient presented to dermatology outpatient department (OPD) with a history of eczematous skin lesion over the left breast since one year. The patient came to the OPD with the complaints of pain, itching, and burning sensation in the area of the lesion. The lesion progressed without any response to topical treatment. Examination revealed a normal right breast and a sharply demarcated infiltrated plaque over left breast covering the areola with complete destruction of the nipple [Figures 1 and 2]. There was no regional lymphadenopathy or underlying mass seen. Biopsy of the lesion showed histological features [Figure 3] of a large, round cell intraepidermal neoplasia, with no intercellular bridges. The cells showed clear cytoplasm and large nuclei, and were arranged in groups along the basal layer, suggestive of Paget's disease. Paget's disease cells (PDCs) are large, atypical, have abundant pale-staining cytoplasm that may contain mucin secretion vacuoles and bulky heterochromatic nuclei.

A clinico- pathological diagnosis of unilateral Paget disease of the nipple was made. Paget's disease is an uncommon presentation of breast carcinoma. The former presents mainly as an erythematous, scaly lesion affecting the nipple and the areola and extending to the periareolar region. It occurs commonly in patients of 40-60 years of age. There are two forms of Paget's disease: Paget's disease of the breast associated with ductal carcinoma *in situ*, which extends to the epidermis by means of a milk duct, and extramammary Paget's disease. In the extramammary form, Paget's cells are believed to originate in the apocrine gland, the disease affecting the vulvar, anal, genital and axillary regions.[1]

Two theories have been formulated to explain Paget's disease of the breast: epidermotropic theory and transformation theory. Epidermotropic theory states that, Paget's cells originating in the apocrine duct are transformed into a ductal carcinoma, and migrate to the epithelium of the

Figure 1: Sharply demarcated infiltrated plaque over left breast covering areola with complete destruction of the nipple

Figure 2: Plaque over left breast with complete destruction of the nipple

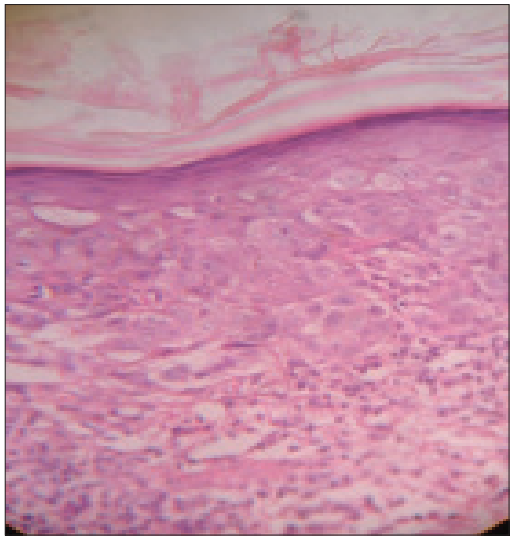

Figure 3: Biopsy of the infiltrated plaque over left breast showed histological features like large, round cell intraepidermal neoplasia, with no intercellular bridges (H and E, ×10)

nipple. This theory explains the cases of Paget's disease with an underlying intraductal carcinoma. The transformation theory states that, Paget's cell is a transformed malignant keratinocyte, which suggests that Paget's disease is an independent carcinoma *in situ*. This would explain the cases of the disease where no identifiable breast carcinoma is present, as is found in the present case.[2]

Differential diagnosis includes eczema, psoriasis, superficial basal cell carcinoma and melanoma (pigmented lesions). However, it differs from eczema because it is unilateral, with less intense pruritus, showing progression and an inadequate response to topical steroid therapy, as in the present case.

Total mastectomy was done in the current case.

REFERENCES

1. Lage D, Volpini Cde A, Sasseron Mda G, Daldon P, Arruda L. Paget's disease: The importance of the specialist. An Bras Dermatol 2010;85:365-9.
2. Garijo MF, Val D, Val-Bernal JF. An overview of the pale and clear cells of the nipple epidermis. Histol Histopathol 2009;24:367-76.

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