Unilateral Lichen Planus Along the Lines of Blaschko: a Rare Clinical Presentation

Sanjeev Gupta¹, Sunita Gupta², Mary Thomas³, Aneet Mahendra¹

¹ Department of Dermatology and STI, MM Institute of Medical Sciences and Research. Near Shiv Mandir, No. B-2 Mullana, Ambala, India. Correspondence mail: sanjeevguptadr@gmail.com.
² Department of Medicine, MM Medical College Residential Campus. Mullana Ambala Haryana, India 133203.
³ Consultant Dermatologist Bangalore India.

A 34 year man presented to us with itchy lesions on one half of the trunk for the past two months. The lesions started as erythematous to violaceous papules and plaques on the flank and gradually increased in number to involve the left side of the trunk (Figure 1 and 2). Some areas showed the Koebner phenomenon. These lesions were distributed along the lines of Blaschko. Examination of the oral mucosa and nails was within normal limits. There was no history of drug intake, or topical applications prior to the onset of the lesions. He did not have any other known co-morbidities. A differential diagnosis of lichen striatus, lichenoid herpes zoster, linear epidermal nevus and linear psoriasis was considered. A routine hemogram liver function tests and thyroid function tests were normal. Serological tests for hepatitis B, hepatitis C, HIV and syphilis were negative. A skin biopsy was performed which showed hyperkeratosis, acanthosis,
band-like lymphocytic dermal inflammatory infiltrate along the basement membrane with basal cell degeneration, colloid bodies in the upper dermis and melanin incontinence. These features were consistent with a diagnosis of lichen planus (LP). Immunofluorescence was not performed due to lack of availability. In view of the clinical features, evidence of koebnerisation and histopathology, a diagnosis of Blaschkoid LP was made. The patient was treated with topical steroids and oral antihistaminics with gradual resolution of the lesions with hyperpigmentation. The lines of Blaschko are thought to result from a form of mosaicism. Many genetic as well as acquired dermatoses have been seen to follow the pattern dermatoses e.g. nevi, incontinentia pigmenti, vitiligo and scleroderma. Lichen planus following the lines of Blaschko is rare. Less than 0.5% of patients with LP present with Blaschkoid LP. It has been reported more commonly in children though it can also occur in adults. Clinically, the patient presents with the classical lesions of LP in a linear distribution, usually on the limbs and trunk though other areas of the body may also be involved. Few non segmental lesions may occur and koebnerisation may also be observed. Histologically, it is characterized by a bandlike infiltrate of lymphocytes and histiocytes with destruction of the basal layer with degenerative keratinocytes in the lower epidermis. The etiology of Blaschkoid LP is unknown, however it has been thought to be due to an abnormal keratinocyte clone that is only unmasked after the initiating event for lichen planus.

The differential diagnosis of Blaschkoid LP includes epidermal nevi, linear psoriasis, linear porokeratosis, linear Darier’s disease and lichen striatus. Histological examination is a useful tool to differentiate between these conditions. It should also be differentiated from its close mimic, zosteriform LP which occurs in a dermatomal pattern and may occasionally be confused with the Blaschkoid LP.

The course of Blaschkoid LP is usually benign and self-limited. Though linear LP has been seen in association with hepatitis C and metastatic carcinoma, no such associations have been documented with the Blaschkoid variant. Lesions respond to topical potent steroids and oral antihistamines and heal with hyperpigmentation as in classical LP which may persist for long durations.

REFERENCES