Blaschkoid Lichen Planus in an Eight-Year Female Child

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ABSTRACT

Linear lichen planus (LP), or more precisely Blaschkoid LP, is a rare manifestation of LP that occurs more often in children and adolescents. The term linear LP encompasses true linear LP which appears as linear plaques, zosteriform LP which appears in dermatomal pattern, and Blaschkoid LP which appears to follow the Lines of Blaschko. The authors report a case of linear LP on the chest and abdomen in an 8-year female patient. The lesions started as small violaceous papules which coalesced to form plaques. There was no past history of herpes zoster, trauma, or any other skin lesions at the site of disease. On physical examination, there were multiple violaceous plaques with scaly surfaces, appearing in linear patterns, and following the lines of Blaschko on the left side of the trunk. The lesions did not cross the midline. Clinical features and histopathology were consistent with the diagnosis of Blaschkoid LP.

Key Words: *Lichen planus, Child, Lines of Blaschko.*

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INTRODUCTION

Linear lichen planus (LP) is a rare variant of LP that affects fewer than 1% of all patients with LP.[1-4] It occurs more often in children and adolescents.[1,3,5] The term linear LP encompasses LP which appears as linear plaques, Zosteriform LP which appears in dermatomal pattern, and Blaschkoid LP which follows the Lines of Blaschko.[5] The occurrence of Blaschkoid LP in children is well known, but no such case has so far been reported from Pakistan.[1] The authors report a case of linear LP in a female child in whom lesions followed the lines of Blaschko.

CASE REPORT

An 8-year girl presented with pruritic lesions over her trunk for the last 10 months. The lesions started as small violaceous papules which coalesced to form plaques. There was no past history of herpes zoster, trauma or any other skin lesions at the site of eruptions or any drug intake prior to the onset of skin lesions. The mucous membranes, scalp, and nails were normal. Family history was not significant.

Cutaneous examination revealed multiple violaceous plaques with fine scaling. The lesions had coalesced at places to form whorls and linear shapes along Blaschko lines on the left side of the chest and abdomen. The lesions extended from the midline posteriorly to the midline anteriorly and did not cross the midline (Figure 1 and 2).

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There were no skin lesions on other parts of the body. All baseline investigations including complete blood picture, liver enzymes, and urine analysis were within the reference range. The viral markers for hepatitis B and C were negative.

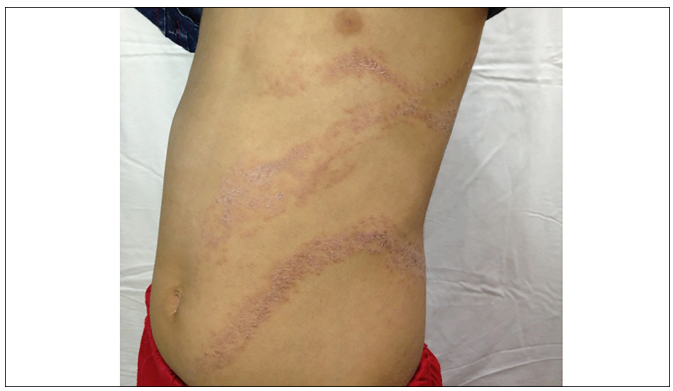

Figure 1: Lesions of lichen planus forming S-shaped pattern on lower chest and abdomen.

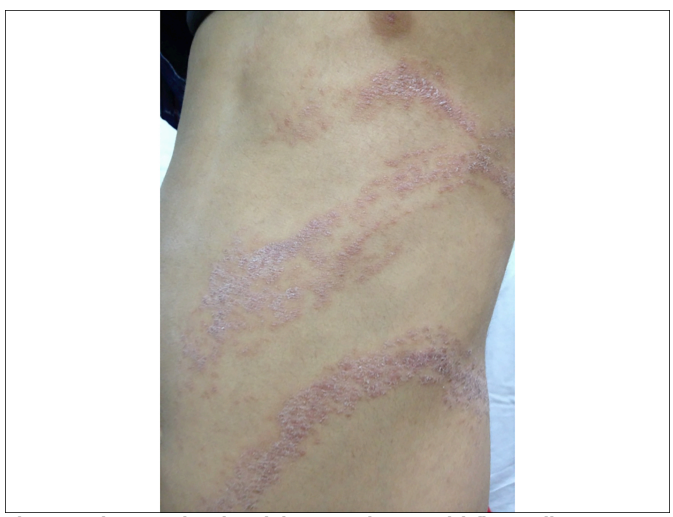

Figure 2: Close-up showing violaceous plaques with fine scaling.

A skin biopsy was taken from the lesions on the abdomen. Histopathology revealed epidermis showing mild to moderate acanthosis, focal hypergranulosis, and elongated rete ridges. Dense lymphohistiocytic infiltrate was observed at the dermoepidermal junction with focal basal cell degeneration and pigmentary incontinence (Figure 3 and 4). Based on clinical findings with peculiar distribution of lesions along the Blaschko lines and the characteristic histopathology, diagnosis of Blaschkoid LP was made. The patient was treated with topical steroids and antihistamines. The lesions had started regressing after one month treatment. A regular follow-up was suggested to see the course of the disease.

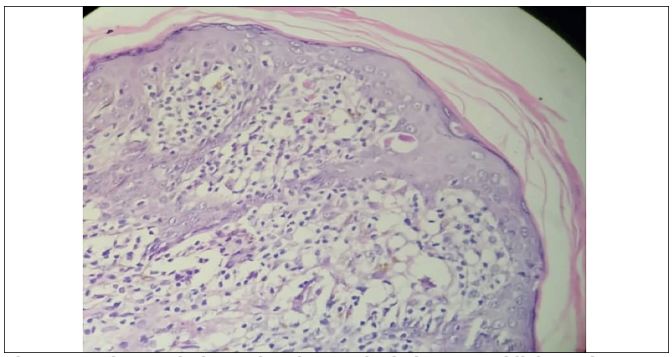

Figure 3: Histopathology showing typical changes of lichen planus.

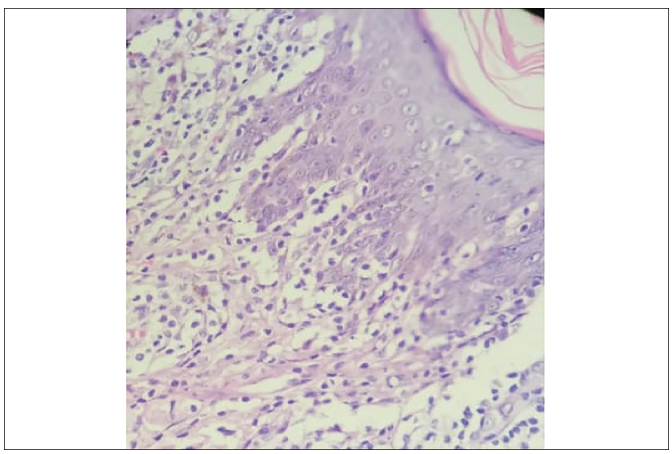

Figure 4: Dense lymphohistiocytic infiltrate at the dermo-epidermal junction.

DISCUSSION

LP is an inflammatory skin disease of unknown aetiology commonly occurring in middle-aged patients.It equally affects both genders and occurs in all races. Less than 5% of the patients presenting with LP are children.[1-4]

Linear LP is an uncommon variant occurring in fewer than 1% of all patients with LP.[2-4] It occurs more often in children and adolescents.[1,4] The linear array of lesions as a consequence of the Koebner phenomenon are frequently found in LP. The term linear LP has been described with different names by different authors.[3-6] It encompasses three different entities which include the true linear LP, which appears as linear plaques, the zosteriform LP, which appears in dermatomal pattern, and Blaschkoid LP, which appears to follow the Lines of Blaschko.[5] With the exception of LP developing within the site of previous herpes zoster, the distribution pattern of this type of linear LP generally does not precisely follow the dermatomes.[2] It has been previously suggested that zosteriform LP might be a specific manifestation of the Koebner phenomenon but in the majority of cases, there was no history of herpes zoster at the site of LP.[5]

It has been previously suggested that the term linear LP is to be better reserved for the disease that appears spontaneously within the lines of Blaschko.[1-4]

A number of skin diseases occur in a distribution pattern, which follows the lines of Blaschko.[1,2] Lesions which occur along the lines of Blaschko characteristically present as an S-shaped pattern on the abdomen, V-shaped pattern along the posterior midline, and linear patterns on the lower trunk and limbs. On the face, they form snake-like patterns.[6]

Two more terms have been used to describe linear LP namely, Blaschko linear LP and Blaschkoid LP.[7,8] Criscito *et al.* suggested that it is better to term the true linear LP as Blaschkoid LP, because it follows the Blaschko lines. This will minimise the confusion which so far surrounds the description of this entity by different authors.

The lesions of LP observed in the present patient strictly followed the lines of Blaschko as an S-shaped pattern on the chest and abdomen that is why we have used the term Blaschkoid LP.

In conclusion, this case represents the first case of unilateral Blaschkoid LP in an 8-year child from Pakistan. There is a need to keep this condition in mind in a child presenting with a rash along the lines of Blaschko.

PATIENT'S CONSENT:
Informed consent was obtained from the parents of the patient.

COMPETING INTEREST:
The authors declared no conflict of interest.

AUTHORS' CONTRIBUTION:
AH: Conception, acquisition of the data, analysis, drafting/revising, and accountable for the manuscript.
AQ: Acquisition of the data, analysis, drafting/revising, and accountable for the manuscript.
Both authors approved the final version of the manuscript to be published.

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