Perforating Lichen Planus in an Adolescent Boy: A Rare Phenomenon

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Indian J Dermatol 2017;62(1):100-101

Sir,

Lichen planus (LP) is a common autoimmune disorder with variable presentation. Perforating LP is a rare variant of this disease with features of both LP and transepidermal elimination in histopathology.[1,2] A very few cases of perforating LP have been reported till date in the literature.

A 14-year-old Indian boy presented with gradually progressive pruritic lesions over both lower legs for 6 months. On examination, we found multiple, hyperpigmented, keratotic papules and plaques over the anterior, posterior, and lateral sides of distal parts of both lower extremities [Figure 1a and b]. The mucosae, nail, hair, and systemic examinations were noncontributory. There was no history of any drug intake before the eruption. The patient also had no history of jaundice in the past. A provisional diagnosis of lichenoid dermatosis was considered. A 4-mm punch biopsy was performed including the keratotic central part of a lesion. On histopathological examination, we found hyperkeratosis, focal hypergranulosis, irregular acanthosis, basal cell degeneration, Civatte bodies, and dense band-like lymphocytic infiltrate mixed with histiocytes in the upper dermis with features of transepidermal elimination [Figure 2a and b]. The wide perforating channel was filled with dense lymphohistiocytic infiltrate [Figure 3a and b]. On the basis of these clinical and histopathological findings, the diagnosis of perforating LP was made.

LP is an immune-mediated disorder classically presenting as faintly erythematous to violaceous, polygonal, flat-topped papules usually distributed symmetrically and bilaterally over the extremities. Many variations in the clinical presentations according to the morphology, configuration, or distribution have also been described.[1]

The classical epidermal changes of LP include hyperkeratosis, wedge-shaped hypergranulosis, and irregular elongation of rete ridges in sawtooth pattern. There is basal cell damage, and multiple apoptotic cells (colloid-hyaline bodies or Civatte bodies) are seen in the dermoepidermal junction. Eosinophilic colloid bodies are found in the papillary dermis.[1,2] There is a band-like dense lymphocytic infiltrate mixed with histiocytes in the papillary dermis.[2]

Perforating LP is a rare variant of LP which clinically presents as keratotic papules and plaques. On histopathology, there is transepidermal elimination with other features of LP.[1,2]

There are very few cases of perforating LP reported in the literature. Hanau and Sengel[3] reported a case in a 52-year-old woman in 1984. Histopathology of that case showed typical features of LP with an area of perforation of epidermis with a rectilinear channel containing hyaline bodies, inflammatory cells, melanophages, and fibrillar material.[3]

Gutte and Khopkar[4] described a case of perforating LP in a 38-year-old man with histological features of LP
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Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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How to cite this article: Ghosh A, Bhunia D, Rudra O, Agarwal M. Perforating lichen planus in an adolescent boy: A rare phenomenon. Indian J Dermatol 2017;62:100-1.
Received: July, 2016. Accepted: November, 2016.

and perforation of epidermis along with acrosyringeal accentuation of infiltrate. The perforating channel was made up of a parakeratotic plug, and also abundant colloid bodies were seen below the invagination of epidermis by a parakeratotic plug. In our case, there was no feature of parakeratosis or acrosyringeal accentuation.

We prescribed oral acitretin in a dose of 25 mg/day to our patient. After 6 weeks, the lesions started regressing, but he was lost to follow-up.

Presentation of perforating LP in an adolescent boy with distinct histopathological features made our case a rare one. This case emphasizes the role of histopathological examination in any atypical presentation of LP for its proper diagnosis and management.