Linear Lichen Nitidus with Onychodystrophy in a Child

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Abstract

Lichen nitidus is a common dermatosis described classically as shiny, skin-colored, nonfollicular, flat-topped papules. A number of variants have been described in literature including localized, generalized, actinic, vesicular, perforating, hemorrhagic, palmar/plantar, purpuric, and linear forms. Here, we report an unusual case of linear lichen nitidus in an 11-year-old boy mimicking lichen striatus along the left thumb with isolated nail involvement of the affected digit. Nail involvement in lichen nitidus is very rare; there are only seven cases of lichen nitidus associated nail changes reported in the literature. To the best of our knowledge, this is the first such case reported from India.

Key Words: Lichen nitidus, linear lichen nitidus, onychodystrophy

Introduction

Lichen nitidus was first described by Pinkus more than a century ago in 1907. The classical description of this fairly common dermatosis is asymptomatic, multiple, shiny, skin-colored and flat-topped papules usually seen over the dorsa of the hands and genitalia, though generalized forms are seen. The disorder often presents along with lichen planus lesions elsewhere in the body and may even follow the appearance of lichen planus in some individuals.\(^1\)

The etiology is still uncertain; in fact, lichen planus and lichen nitidus were once believed to be different manifestations of the same disease process. Although in clinical practice, classical morphology is most commonly encountered, the presentation may be diverse.

Here, we report a case of a young boy with a very uncommon clinical presentation of linear lichen nitidus along the dorsal aspect of the left thumb along with prominent nail involvement.

Case Report

An 11-year-old boy presented to our outpatient clinic with multiple skin-colored lesions over the left thumb for the past 2 years, with subsequent extension of the lesions onto the nail in the last 6 months. The lesions were occasionally itchy, and there was no preceding history of any drug intake before the appearance of the lesions.

The examination of the child revealed multiple, shiny, skin-colored-to-hypopigmented, discrete-to-coalescent, flat-topped papules in a linear configuration along the dorsum of the left thumb [Figure 1].

The left thumb nail also showed slight hyperpigmentation of the proximal nail fold. The nail plate showed a longitudinal split along with a violaceous hue. There was nail plate thinning, longitudinal ridging, and complete dystrophy of the lateral aspect of the nail plate [Figure 1]. Mild subungual hyperkeratosis of the nail bed was also observed. The examination of the rest of the nails of the affected hand revealed no abnormality, and rest of the general and mucocutaneous examinations were normal.

At first instance, we kept the possibility of lichen striatus; however, the lack of eczematous papules and the shiny nature of the papules prompted us to keep a second diagnosis of linear lichen nitidus with onychodystrophy.

After an informed parental consent, we performed a 4-mm punch biopsy from the cutaneous papules. However, the parents refused consent for a nail matrix biopsy.

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On histopathological examination, the epidermis showed mild focal parakeratosis with focal basal layer degeneration. The dermis showed a lymphohistiocytic infiltrate with focally expanded dermal papilla and suprapapillary thinning along with a perivascular lymphocytic infiltrate in a characteristic “claw clutching ball” appearance [Figures 2 and 3].

So, a diagnosis of linear lichen nitisus, was made on clinicopathological grounds.

Discussion

Linear lichen nitidus was first described in 1970 by Petrozzi and Schmunes.[2]

Lichen nitidus may have a number of morphological variants, namely, localized, generalized, actinic,[3] perforating,[4] hemorrhagic,[5] vesicular,[5] purpuric, plantar/palmar, and linear[2] forms.

The rare presentations include mucosal, palmoplantar, and nail involvement in lichen nitidus. Nail and mucosal involvement is quite rare, especially in localized forms of the disease, but may occasionally be seen in generalized forms.[6] There have been cases where the primary presentation was nail dystrophy along with palmoplantar hyperkeratosis.[7] Isolated palmer involvement with skin-colored papules with central pitting has also been reported in the absence of disease elsewhere.[8]

Involvement of nail has been reported to precede the cutaneous eruption in a few instances. Tay et al. have reported a case of lichen nitidus with nail lesions being the presenting feature.[9] They described a 4-year-old girl with violaceous/pigmentary changes of the nail fold and subtle lichenoid papules on the affected digits which was subsequently diagnosed as a case of nail lichen nitidus.

So far, there have only been seven cases of lichen nitidus-associated nail changes reported worldwide [Table 1]. To the best of our knowledge, this is the first case report from India. The commonly reported changes include longitudinal ridging, rippling, pitting, as well as nail plate splitting [Table 1].

Our case was unique in the fact that it presented with lesions of lichen nitidus in linear configuration and with isolated nail dystrophy of the affected digit. On clinical examination, our first instinct was to think of lichen striatus, keeping in mind the age of the patient and significant nail dystrophy. However, histopathology was consistent with the diagnosis of lichen nitidus.

In adults also, there have been instances wherein a clinically diagnosed case of adult blaschkitis was later proved to be lichen nitidus. Aravind et al. have reported such a case of blaschkolinear-acquired inflammatory skin eruption (BLAISE) or adult blaschkitis where the clinical features were multiple flat-topped, flesh-colored-to-hyperpigmented, 1- to 3-mm papules, coalescing into plaques, with surrounding ill-defined erythema, and slight scaling on the right upper extremity; however, on histopathology, the features of lichen nitidus were seen.[12]

Conclusion

Lichen nitidus is a somewhat common dermatosis in children; however, associated nail changes are not commonly seen. Linear lichen nitidus is a rare morphological pattern of lichen nitidus, as is its association with nail dystrophy. To the best of our knowledge, we reported here the first case of localized lichen nitidus with associated nail dystrophy from India.
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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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