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Pediatric onychodystrophy: is it always a fungal infection?

Onicodistrofia pediátrica: será sempre uma infeção fúngica?

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Keypoints

What is known

- Lichen striatus is a rare dermatosis whose etiology and pathogenesis are not well defined.
- Treatment with topical corticosteroids or calcineurin inhibitors seems to ameliorate pruritus.

What is added

- Nail involvement is rare and can be misdiagnosed as fungal infection.
- A high index of suspicion is needed to avoid unnecessary treatments.

A healthy, dark-skinned four-year-old female presented with a three-month history of asymptomatic linear red-brown papules on the left forefinger and left thumb which extended to the periungual area of the thumb with consequent changes to the nail. There was no history of recent trauma, viral infections, allergy, new medications, or vaccines. The patient revealed multiple millimetric flesh-colored papules along Blaschko's lines on the lateral side of the left forefinger and on the medial side of the left thumb extending to the periungual area, with onycholysis, longitudinal ridging and nail splitting and subungual hyperkeratosis of that nail (Fig. 1). The examination was otherwise unremarkable. The lesion was diagnosed as lichen striatus with nail involvement. She initiated topic tacrolimus ointment 0.03%, showing nail improvement at the 4-month follow-up (Fig. 2).

Lichen striatus (LS) is a rare, benign, acquired dermatosis with a predilection for females[1-5]. The etiology is unknown, but it has been hypothesized to be derived from cutaneous mosaicism caused by a postzygotic somatic mutation[3,4]. Triggering events such as trauma, viral infections, vaccinations, and medications, can initiate an autoimmune response[3,4] which will produce a linear dermatosis, characterized by pink to flesh-colored or erythematous, millimetric flat-topped papules that follow Blaschko's lines[1-5]. Papules often coalesce to form a hyperpigmented continuous or interrupted linear band over weeks (occasionally months)[1,3]. It is typically unilateral, most commonly involving the extremities with a proximal to distal progression[1-3]. Although rare, there is sometimes involvement of the nail leading to onychodystrophy, characterized by nail pitting, longitudinal ridging, nail plate thinning and subungual hyperkeratosis[1,4]. Usually only the lateral or medial portion of the nail plate of a single nail is affected and is sometimes mistaken for fungal infection[1,3,4].

LS is generally asymptomatic although it may be pruritic[3,4]. Diagnosis is based on clinical features and in doubtful cases, a skin biopsy can be made[3].

Topical corticosteroids or topical calcineurin inhibitors may improve pruritus. However, in view of its

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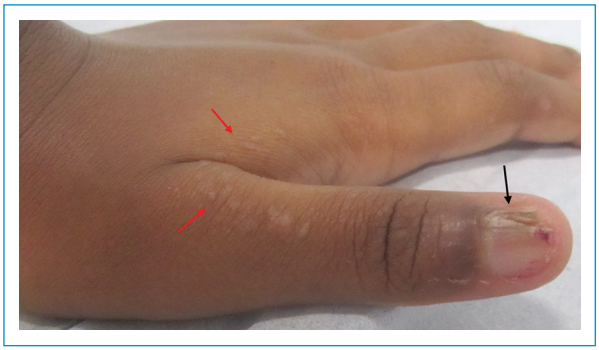

Figure 1. Flesh-colored papules along Blaschko's lines on the lateral side of the left forefinger and thumb (red arrows) with involvement of the medial portion of the nail plate (black arrow).

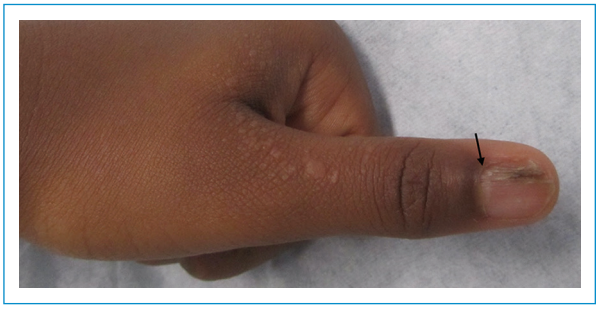

Figure 2. Slight improvement of the proximal edge of the nail plate at the 4th month of topic tacrolimus ointment 0.03% (black arrow).

self-limiting nature, parents should be reassured about spontaneous resolution within six months to three years[2-4].

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Conflicts of interest

None.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

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