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## 2. Lichen striatus

Lichen striatus is a rare, self-limiting lichenoid eruption of unknown etiology. Although it can appear at any age, it tends to favour children; more than 50% of cases occur in individuals 5 to 15 years of age.<sup>1-3</sup> Both sexes are equally afflicted, although some studies cite a 2- to 3-fold predominance in women.<sup>1-3</sup>

Clinically, lichen striatus is characterized by pink, tan, or skin-coloured papules coalescing into plaques in a linear configuration. These bands of lichen striatus follow the lines of Blaschko and can extend from a few centimetres to the entire length of an extremity. The papules might be smooth, scaly, or flat-topped, akin to lichen planus, and most commonly affect the extremities, trunk, and neck. Eruptions are most often unilateral and solitary, typically starting on a proximal extremity and extending distally.<sup>4</sup> Rare cases might display nail changes, including splitting, onycholysis, hyperkeratosis of the nail bed, nail loss, onychodystrophy, and leukonychia.<sup>5</sup> Lichen striatus is typically asymptomatic, with infrequent reports of pruritus. The eruption is self-limiting and lasts an average of 9 months.<sup>2-4</sup> Nail involvement can take up to 30 months to completely clear<sup>5</sup>; however, residual postinflammatory hyperpigmentation or hypopigmentation might persist beyond that time. Relapses of lichen striatus are rare.<sup>2</sup>

## Etiology

The etiology of lichen striatus is unclear. Current thinking suggests combined influences of genetic predisposition and environmental stimuli; multiple studies report an increased incidence of lichen striatus in those with atopic family histories (eg, asthma, allergic rhinitis, atopic dermatitis) and in those with affected siblings.<sup>2,3</sup> Some scientists have suggested that lichen striatus is an autoimmune response to inflamed T cells.<sup>6</sup> Environmental stimuli, such as infection or trauma, have also been implicated in its pathogenesis, as cases in unrelated individuals have been described.<sup>6-8</sup> Additionally, the appearance of lichen striatus that follows the lines of Blaschko suggests a postzygotic somatic mutation, in which an acute event causes expression of a novel membrane antigen.<sup>2</sup>

## Diagnosis

Lichen striatus is a clinical diagnosis; further diagnostic workup is not usually required. However, it might be challenging to distinguish its lesions from those of other diseases, such as lichen planus (with its similar flat-topped papules) or linear variants of porokeratosis and lichen planus (with their predilection toward the lines of Blaschko).<sup>9</sup> The typical nonpruritic nature of lichen striatus, however, helps in its differentiation from diseases that are typically itchy, such as lichen planus.

In some cases, skin biopsies are helpful in confirming diagnosis. Histology of lichen striatus shows lichenoid spongiotic dermatitis.<sup>10</sup> Although rarely used, direct immunofluorescence with staining for Civatte bodies as well as negative stains for immunoglobulin M, immunoglobulin G, and complement C3 might also help distinguish lichen striatus from lichen planus.<sup>9,10</sup>



## Treatment

As lichen striatus is a self-limiting condition that spontaneously regresses 3 to 12 months after onset, no treatment is required. Patients and their families should be reassured that this condition is not harmful and will not persist into adulthood. Any available treatments are only for limiting morbidity and preventing complications. Emollients and topical steroids are used to treat dryness and pruritus associated with the lesions. Topical and intralesional steroids have been used for their anti-inflammatory effects; however, the patient's age should be considered before attempting these therapies.<sup>2,3</sup> Recent studies have shown that treatment of lichen striatus with off-label topical calcineurin inhibitors has been beneficial in relieving associated pruritus.<sup>11,12</sup>

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## Competing interests

None declared

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