



Correspondence

Concurrence of Lichen Striatus in Siblings

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Received: 04 January 2024
Accepted: 20 February 2024
Epub Ahead of Print: 28 March 2024
Published: 23 August 2024

DOI
10.25259/IJPGD_2_2024

Quick Response Code:



Dear Editor,

Lichen striatus is a benign, self-limiting, linear inflammatory dermatosis of unknown aetiology. It is mostly seen in children between the age of 5 and 15 years. It usually presents as asymptomatic or mildly pruritic, multiple flat-topped pinkish to reddish papules in a blaschkoid distribution. There are reports of lichen striatus simultaneously occurring in siblings, suggesting a common inflammatory trigger in the form of infections and vaccines.^[1-3] We hereby report two cases of lichen striatus in siblings occurring in different blaschkoid distributions.

A 4-year-old girl presented to our dermatology outpatient department with asymptomatic, whitish-to-skin-coloured lesions arranged linearly over her right lower limb for 6 months. On examination, there were multiple hypopigmented to pinkish closely grouped flat-topped papules distributed linearly along the right buttock and extending up to the posteromedial aspect of the right foot. The rest of the body, scalp, nails and the mucosa were normal. Systemic examination revealed no abnormality. She was diagnosed as a case of lichen striatus based on the clinical morphology and distribution of the lesion. The parents were then counselled regarding the self limiting nature of the disease and the patient was prescribed topical pimecrolimus and an emollient. In the follow-up visit, the patient's 6-year-old sister presented with similar whitish lesions over her anterior chest for 4 weeks [Figure 1].

In both cases, there was no history of preceding upper or lower respiratory tract infection or any other major illness. There was no history of vaccination or family history of atopy.

Lichen striatus is an uncommon self-limiting linear dermatosis predominantly affecting children with a characteristic distribution along the lines of Blaschko. The theory behind the blaschkoid distribution, in which abnormal skin cell clones travel during the embryonic stage, is called cutaneous mosaicism. Most of these clones arise through somatic mutations.^[4] Infections, trauma, hypersensitivity reactions, vaccines, medications and pregnancy have been proposed as the triggering events for lichen striatus.^[5] Being a benign condition, it is typically asymptomatic and usually resolves spontaneously within 1 year.

There are few reported cases of co-occurrence of lichen striatus in siblings. A concept of epigenetic mosaicism was proposed for familial clustering.^[4] DNA alterations known as epigenetic modifications control which genes are active or inactive. This idea makes use of transposable elements or retrotransposons, which can modify the methylation or demethylation of nearby genes to either activate or silence them. It is thought that certain immunological events, such as

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Figure 1: Multiple hypopigmented flat-topped papules arranged linearly over the right buttock (younger sibling) and the chest of the older sibling respectively.

infections, typically cause the silent genomic transposons in lichen striatus to become active. The clinical presentation is brought on by this loss of immunotolerance.

To conclude, we report this case of lichen striatus in siblings at different time intervals with the above-proposed hypothesis. However, further research and reports are needed to confirm this theory.

Ethical approval

Institutional Review Board approval is not required.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

REFERENCES

1. Tripathy T, Singh BS, Kar BR. Co-Occurrence of Lichen Striatus in Twins. *Indian J Dermatol Venereol Leprol* 2019;85: 632-4.
2. Racette AJ, Adams AD, Kessler SE. Simultaneous Lichen Striatus in Siblings Along the Same Blaschko Line. *Pediatr Dermatol* 2009;26:50-4.
3. Smith SB 3rd, Smith JB, Ellis LE, Hogan DJ. Lichen Striatus: Simultaneous Occurrences in Two Non-Related Siblings. *Pediatr Dermatol* 1997;14:43-5.
4. Happle R. Mosaicism in Human Skin. Understanding the Patterns and Mechanisms. *Arch Dermatol* 1993;129:1460-70.
5. Errichetti E, Stinco G, Trevisan G, Patrone P. Lichen Striatus Associated with Psoriasis Vulgaris Treated with Oral Acitretin. *Indian Dermatol Online J* 2014;5:501-3.

How to cite this article: Begum F, Kar B, Mohapatra L. Concurrence of Lichen Striatus in Siblings. *Indian J Postgrad Dermatol*. 2024;2:148-9. doi: 10.25259/IJPGD_2_2024