

Lichen Striatus

Lichen Striatus is a relatively common, self-limited dermatological condition characterized by a unilateral, linear eruption of skin lesions. Typically, it presents with distinct, red or flesh-colored, flat-topped papules that gradually coalesce to form a band-like pattern. The condition is more prevalent in girls than in boys, with a reported gender ratio of 2:1, and the mean age of onset is 3 years (though it can occur between 6 months and 14 years). Although extremities are the most common sites of involvement, lesions may also extend from the trunk to the extremities.

Clinical Features and Presentation

The hallmark of lichen striatus is the formation of 1 to 3 mm papules that are flat-topped, thickened, and often slightly scaly. These papules typically appear suddenly and can group together, forming a linear band ranging from 1 to 3 cm in width, which may progress along the entire length of an extremity. The lesions may be continuous or interrupted, but remain confined to one side of the body, hence the term "unilateral." In individuals with darker skin, the lesions tend to leave hypopigmented or lighter-colored marks upon healing. Lesions may also extend to the upper nail fold, causing nail involvement. In some cases, nail changes can precede the development of the linear band on the skin, with the nails becoming affected months before the appearance of the characteristic linear eruption.

Although lichen striatus does not typically cause significant irritation, pruritus (itching) can occasionally be intense. Importantly, the condition is self-limited, with spontaneous resolution usually occurring between 4 weeks to 3 years, with an average duration of 9.5 months. After the lesions resolve, post-inflammatory hyperpigmentation or darkening of the skin can persist in about 50% of cases.

Etiology and Pathogenesis

The exact cause of lichen striatus remains unclear, but several clues suggest a possible viral etiology. The condition has been observed in familial clusters, with cases reported among siblings, and there is also evidence of seasonal variation, with outbreaks most commonly occurring in the spring and summer months. These patterns suggest that a viral infection might be responsible, though no specific viral pathogen has been definitively identified. Furthermore, endemic outbreaks have been reported, further supporting the possibility of a viral origin. Despite these observations, research to identify a causative virus has so far been inconclusive.

Diagnosis

The diagnosis of lichen striatus is primarily clinical and based on the characteristic linear distribution of papules and the age of onset. A biopsy can be performed if the diagnosis is in doubt, as it can help rule out other potential dermatologic conditions with similar clinical presentations. The histological features of lichen striatus include epidermal hyperplasia, hyperkeratosis, and lymphocytic infiltration.

Treatment Options

In most cases, lichen striatus resolves spontaneously, and treatment is not required. However, if the condition causes significant cosmetic concerns or pruritus, various treatments can be considered. The use of topical corticosteroids is the most common approach, and it may help alleviate inflammation and discomfort. In some instances, intralesional steroids can be more effective, particularly for localized or more resistant lesions. Several courses of steroid treatment may be necessary for complete resolution.

Because lichen striatus is often resistant to treatment, management typically focuses on symptom relief and monitoring for spontaneous resolution. As the condition is self-limited, most patients will experience full recovery without the need for extensive interventions. However, for persistent or severe cases, additional treatments such as topical calcineurin inhibitors or phototherapy may be explored, although evidence supporting their efficacy is limited.

Prognosis

The prognosis for lichen striatus is generally good, as the condition is self-limited and often resolves without permanent scarring. Post-inflammatory hyperpigmentation or hypopigmentation may persist for several months after resolution of the lesions. Recurrence is rare, and the disease typically resolves completely over time. Most cases last less than a year, and spontaneous involution is typical of this condition.

Conclusion

Lichen striatus is a benign, self-limited skin condition primarily affecting young children. It presents as a unilateral, linear eruption of flat-topped, thickened papules, typically confined to the extremities. Though the exact cause remains unknown, the pattern of seasonal outbreaks and familial clustering suggests a viral etiology. While treatment is generally not necessary due to the self-resolving nature of the condition, topical corticosteroids and intralesional steroids may help manage symptoms. The prognosis is excellent, with most cases resolving within months, though some may experience post-inflammatory pigmentation changes.

References

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