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Topic: Inflammatory skin diseases

Treatment response of inflammatory linear verrucous epidermal nevus (ILVEN) to oral alitretinoin

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Introduction

Inflammatory linear verrucous epidermal nevus (ILVEN) is a benign nevus characterized by Blaschko-linear psoriasiform lesions and marked resistance to conventional treatments, likely due to its origin in somatic mutations causing genetic mosaicism. While CO₂ laser and surgical excision show promise, post-procedure scarring limits their effectiveness. Oral alitretinoin, an approved treatment for refractory chronic hand eczema, may similarly benefit ILVEN by exerting anti-inflammatory and immunomodulatory effects on keratinocytes.

Materials and Methods

We present two female biopsy-proven ILVEN patients who showed dramatic improvement with alitretinoin.

Results

The first patient, a 21-year-old female suspected of epidermal nevus syndrome with cardiomegaly and left-sided congenital hemihypertrophy, presented with a ten-year history of persistent pruritic, verrucous plaques on the left palm and sole. After 30 mg/d alitretinoin treatment, pruritus and lesion thickness improved rapidly within a month, with sustained benefits during continued use. The second patient, a 24-year-old female with atopic dermatitis, had an eleven-year history of pruritic, verrucous patches on the right neck and lower back that recurred despite treatment with topical therapies and CO₂ laser. Following 30 mg/d alitretinoin initiation, symptoms lessened, and the plaques flattened completely within five months. Both patients reported no adverse reactions related to alitretinoin treatment.

Conclusions

In contrast to most retinoids, alitretinoin is able to bind all six retinoid receptors, and alitretinoin may exert its effect via synergistic activation of multiple retinoid receptors. We propose alitretinoin as a novel, effective, and well-tolerated therapy for ILVEN, which is resistant to most conventional treatments.

