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Adult Onset of Nevus Unius Lateris

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Dear Editor:

A 48-year-old Korean female patient complained of brownish papules with verrucous surface, and a linear distribution. She had recognized cutaneous lesions about 15 years previously, and these lesions became more remarkable in coloration and linear distribution for the past year. The skin lesions seemed as a linear pattern following the lines of Blaschko, involving the right leg, which were extended to same side of her sole manifest as linear distributed, verrucous, and hyperkeratotic plaques (Fig. 1). She had no past medical history and family history. Histopathological examination from the right calf showed hyperkeratosis, acanthosis and hyperpigmentation of the basal layer (Fig. 2A). The histopathology from her ipsilateral sole showed verrucous surfaced epidermal alterations which were represented by definite hyperkeratosis, epidermal acanthosis, parakeratosis, and rete ridge elongations (Fig. 2B). She was diagnosed with nevus unius lateris. She had a surgical excision of the plantar lesion subsequently reconstruction with a skin graft. Alternatively, topical treatment with retinoic acid and topical

corticosteroid were applied on her right leg lesions.

Epidermal nevus is a mosaic disorder as a result of somatic mutations that have occurred during fetal life¹. Epidermal nevus has a tendency to follow the Blaschko lines. Eighty



Fig. 1. (A, B, C) The skin lesions appeared in a linear fashion, following the lines of Blaschko, involving primarily the right leg, which were extended to ipsilateral sole. Right sole manifest as yellowish, thick, linear distributed, verrucous, and hyperkeratotic plaque.

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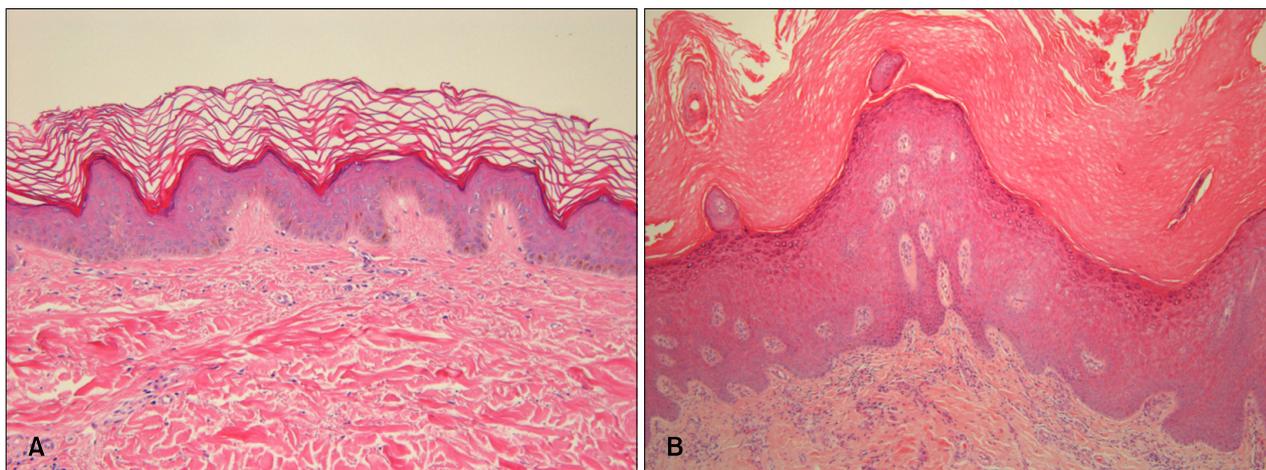


Fig. 2. (A) A biopsy specimen from the right calf shows hyperkeratosis, acanthosis and hyperpigmentation of the basal layer (H&E stain, $\times 100$). (B) Histology performed on a biopsy specimen from a keratotic lesion on the sole reveals verruciform epidermal changes, such as marked hyperkeratosis, parakeratosis and acanthosis (H&E stain, $\times 100$).

percent of lesions appear within the first year of life, with the majority of lesions appearing by age 14 years. Our patient recognized her leg and sole lesions in her thirties. Such late-developing epidermal nevi probably represent lesions that have always been present sub-clinically, but recent growth resulted in clinical recognition. Congenital lesions tend not to expand significantly, and the majority of epidermal nevi remain quiescent after adolescence. But, in our patient, her lesions were progressed, and became more remarkable in coloration and linear distribution.

The histopathologic features of epidermal nevi are described as acanthosis, hyperkeratosis, and papillomatosis. The rete ridges are elongated, and focal thickening of the granular layer and parakeratotic columns are seen². Frequently, hyperpigmentation in the basal cell layer is evident. This corresponds with the brownish skin lesions. In addition, the margins of skin lesions are sharply demarcated from the surrounding normal skin on microscopy³. This correlates with well-described papules with distinct demarcations.

Linear epidermal nevus that is clinically indistinguishable from inflammatory linear verrucous epidermal nevus (ILVEN) may have different histologic appearances. ILVEN has distinguishing histopathology which are hyperkeratosis, parakeratosis (parakeratotic areas alternate with orthokeratotic), slight spongiosis and lymphocytic exocytosis⁴. Treatment of linear epidermal nevus depends on surgical excision, extending into the deep dermis to prevent a recurrence.

Unfortunately, this is not always possible in some cases of extensive involvement. In these instances, other treatment modalities are available to treat these lesions. Laser ablation, cryotherapy, electrofulguration and variable degree of chemical peels may offer partial or full destruction of lesions. Although topical corticosteroids, topical retinoids, and calcipotriene offer little improvement, these medications can be used as an adjunctive treatment to increase the efficacy of the surgical intervention⁵. Our patient has no recurrence after excision of plantar lesion. And her leg lesions remain quiescent with topical corticosteroids and topical retinoids.

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