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Longitudinal ‘Half-and-Half Nails’ or True Leukonychia

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Key Words

Half-and-half nails · Foot deformities · Nail plate changes · Leukonychia

To the Editor,

Half-and-half nails (Lindsay’s nails) are known from patients with chronic kidney disease. Red, pink, or brown bands occupying 20–60% of the nail bed are present leading to two-colored nails with a transverse border. This proximal part has a whitish ground-glass-like appearance [1, 2]. Occasionally, chemotherapy can lead to this transverse type of half-and-half nails as well [3]. Half-and-half nails have been observed in patients with Behçet’s disease, or Crohn’s disease [4, 5]. Furthermore, an idiopathic type of transverse half-and-half nails is known [6].

Recently, we have seen a 45-year-old female without kidney, Behçet’s or Crohn’s disease. She presented with longitudinal ‘half-and-half nails’ or leukonychia of the great toes. The medial part of her nail plates had a whitish, ground-glass-like appearance (fig. 1). Transverse spikes of the same color can be seen on the lateral edge of the leukonychia, which are more pronounced. The medial nail folds were thickened and hyperkeratotic (fig. 2). The toes had a lateral deviation (hallux valgus). Mycologic examination (microscopy and culture) was negative.

We suspected the hallux valgus to be responsible for a higher friction of the medial part of the distal toe segment and the nail apparatus, which lead to callus formation (medial nail fold) and thickening of the nail plate. Hallux valgus leads to alterations in gait and plantar foot pressure distribution [7].

The nail changes we describe herein belong to leukonychia. There are two major types of leukonychia – true leukonychia, which is produced by modified nail matrix, and apparent leukonychia, where the nail matrix and nail plate are normal. The whitish appearance of the medial part of the great toe nails can be explained by changes in their optical quality. Parakeratosis, disorganization of keratin filaments, and thickening of the nail plate all contribute to the ground-glass appearance [8, 9]. Therefore, our observation reflects true leukonychia in contrast to classical half-and-half nail, which represents apparent leukonychia [9]. Due to the lateral transverse spikes of leukonychia or arcuate leukonychia,



Fig. 1. Bilateral longitudinal half-and-half nails or true leukonychia (digit I). An overview.



Fig. 2. Longitudinal half-and-half nail or true leukonychia – detail. Ground-glass appearance of the medial part with marked hyperkeratosis of the lateral nail fold. Some spikes of transverse leukonychia can be seen on the lateral edge of the whitish discoloration.

there is some overlap to transverse leukonychia by repeated micro-trauma described by Baran and Perrin [10].

In summary, we observed a hitherto unreported longitudinal ‘half-and-half’ nail or true leukonychia. This exceptional nail disorder seems to be associated with hallux valgus deformity. It would be of interest to analyze the possible impact of an orthopedic correction of the hallux valgus on nail pathology.

Statement of Ethics

The patient provided informed consent for the publication of the case, and our study complies with the human rights.

Disclosure Statement

The authors declare no conflicts of interest.

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