



# Misleading nails: A case of isolated nail lichen planus resembling yellow nail syndrome

*Yaniltıcı tırnaklar: Sarı tırnak sendromuna benzeyen izole bir tırnak liken planus olgusu*

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**Anahtar Kelimeler:** Tırnak liken planusu, sarı tırnak sendromu, izole

## To the Editor;

Lichen planus, which can affect skin, mucosa, and nail, is a chronic inflammatory disorder. Isolated nail lichen planus could be seen in 1-2% of patients; however, isolated nail lichen planus mimicking yellow nail syndrome is very rare.

A 42-year-old woman was admitted to our outpatient clinic with nail changes that affected all fingernails and toenails for 5 years. The patient complained about yellow discoloration, thickening, and reduced rate of growth of all fingernails and toenails. She was treated with oral itraconazole and terbinafine therapy for nail changes before, with no response. On her medical history, she underwent a total thyroidectomy operation 3 years ago and has been taking levothyroxin sodium 100 mcg/day since then. Otherwise, she was healthy. No pathological findings were detected on skin or mucosa except marked yellow thickened nails in dermatological examination (Figure 1 a, b). KOH preparation was negative. Computerized tomography of lung and sinuses produced normal results. Histopathologic examination of the nail bed showed hypergranulosis, irregular sawtooth-like acanthosis of rete ridges, basal vacuolar degeneration, and band-like lymphocytic infiltrate obscuring the

dermoepidermal junction (Figure 1c, d). Isolated nail lichen planus mimicking yellow nail syndrome was diagnosed based on clinical, imaging findings, and histopathologic examination. Systemic acitretin therapy (25 mg/day) was administered, and on the third month of treatment, partial improvement of the nail lesions was observed. However, the patient stopped acitretin due to the side effects and refused to take another therapy.

The incidence of nail lichen planus (NLP) varies from less than 1-10%<sup>1</sup>. NLP is usually seen with cutaneous and mucosal lesions; however, nail lichen planus alone is very rare<sup>1</sup>. Each part of the nail unit may be affected by lichen planus. The matrix involvement presents with longitudinal ridging, longitudinal fissuring, nail plate thinning, and pterygium. These findings are the characteristic alterations of NLP. On the other hand, nail bed involvement presents with nonspecific changes, like subungual hyperkeratosis, onycholysis, and violaceous lines or papules through the nail plate. It is difficult to consider NLP absent characteristic nail changes<sup>1</sup>.

Yellow discoloration, thickening, and excessive transverse curvature with a slow growth rate of the nails are seen in yellow nail syndrome (YNS). The further characteristics of the disease are lymphoedema and respiratory tract involvement<sup>2</sup>.

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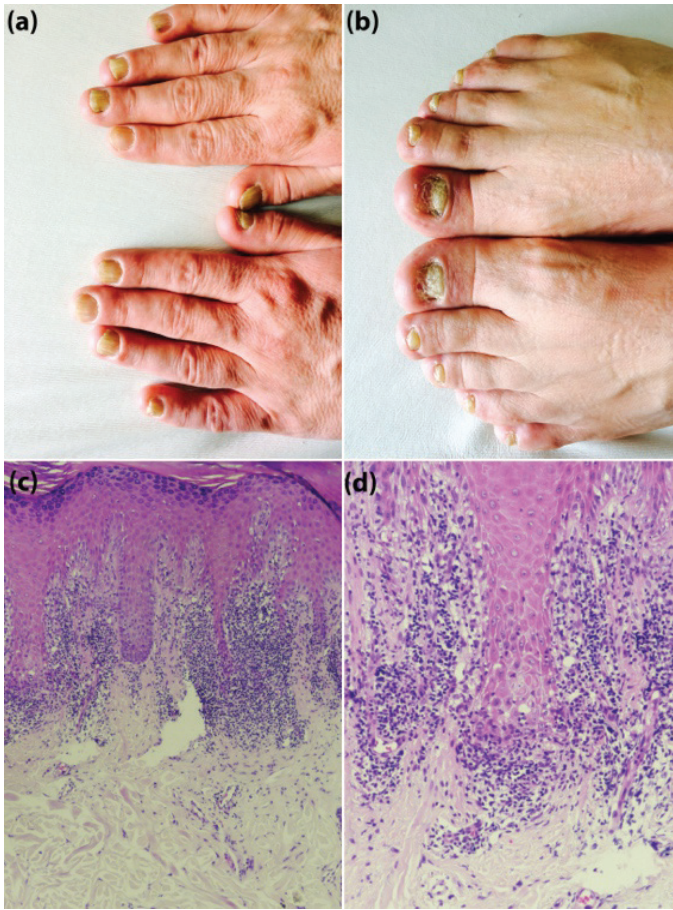
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**Figure 1.** Markedly thickened yellow (a) fingernails and (b) toenails (c) Lesion shows hypergranulosis, irregular sawtooth-like acanthosis of rete ridges, band-like lymphocytic infiltrate obscuring the dermoepidermal junction (H&E x100) (d) irregular acanthosis of rete ridges and basal vacuolar degeneration (H&E x200)

YNS like NLP is reported in 7 cases in the literature. Four cases were men and three were women. The ages of patients ranged from 30 to 61. One of them had oral mucosal involvement; others did not have mucosal or cutaneous involvement of lichen planus. Only toenails were affected in five of these patients; however, two had involvement of YNS-like NLP on all fingernails and toenails similar to our case<sup>2,4</sup>.

The possibility of NLP occurring without mucocutaneous alterations should not be underestimated. It is also challenging to identify NLP when there are nonspecific nail changes. A nail biopsy is required to confirm the diagnosis in situations like the current case.

This case highlights the importance of accurate diagnosis for nail lichen planus and YNS, as they require different treatment approaches. It also demonstrates the potential for nail lichen planus to mimic the symptoms of YNS, making it important for dermatologists to consider both conditions in their differential diagnosis. Informed consent was obtained.

#### Ethics

**Informed Consent:** Informed consent was obtained.

**Peer-review:** Externally peer-reviewed.

#### Authorship Contributions

Surgical and Medical Practices: M.G., F.H., A.G., Concept: M.G., F.H., A.G., Design: M.G., F.H., A.G., Data Collection or Processing: M.G., F.H., A.G., Analysis or Interpretation: M.G., F.H., A.G., Literature Search: M.G., F.H., A.G., Writing: M.G., F.H., A.G.

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