

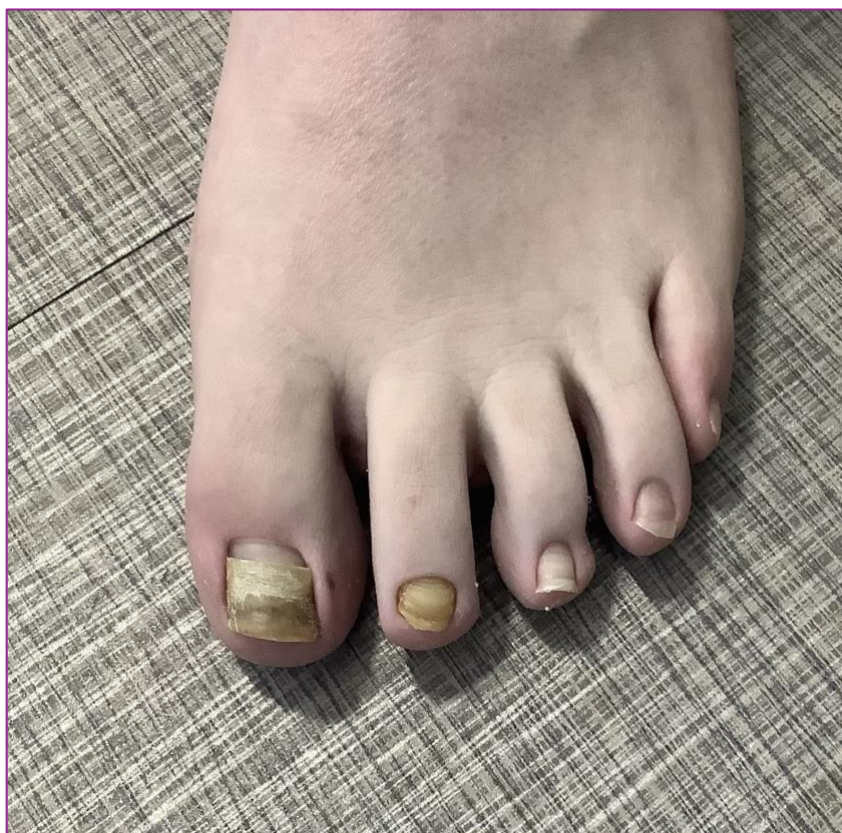
## SKINimages

## Unmasking Retronychia: A Rare Condition Often Overlooked in Onychodystrophy

Katheryn Bell, BS<sup>1</sup>, Julia Lunt, BS<sup>1</sup>, June Kunapareddy, DO<sup>2</sup>

<sup>1</sup> University of South Carolina School of Medicine Greenville, SC, USA

<sup>2</sup> Union Health, Indiana University School of Medicine, Terre Haute, IN, USA



**Figure 1.** Photograph of Left great toe showing xanthonychia, thickening of the proximal portion of the nail plate, erythema, and multiple generations of nail plate.

### INTRODUCTION

Retronychia is a rare but significant cause of onychodystrophy, characterized by proximal embedding of the nail plate into the nail fold.<sup>1,2</sup> Described first in 1999 by de Berker et

al., this condition is frequently underdiagnosed due to its similarity to more common nail disorders, such as onychomycosis or psoriatic onychodystrophy.<sup>1</sup> Proper diagnosis is essential to avoid unnecessary treatments and improve patient outcomes.

## CASE REPORT

A 42-year-old male presented with bilateral great toenail dystrophy persisting for one year. Symptoms included thickened, yellow, and irregular nails accompanied by discomfort. The patient recalled trauma to the left great toenail after dropping a heavy object but did not recall injury to the right toe. He had completed a 90-day course of oral antifungals for presumed onychomycosis, with no improvement.

On examination, the left great toenail showed the presence of multiple generations of nail plate growth, accompanied by erythema and tenderness of the periungual tissue, findings characteristic of retronychia. Additional findings included xanthonychia and bilateral proximal nail plate thickening. The history of trauma and lack of response to antifungals also supported this diagnosis. Nail avulsion was recommended for diagnostic confirmation and treatment, and the patient was referred to podiatry for the procedure.

## DISCUSSION

The differential diagnosis for retronychia includes onychomycosis, subungual hematoma, and psoriatic onychodystrophy.<sup>3</sup> Misdiagnosis can lead to inappropriate therapies, such as antifungals, topical steroids, or systemic biologics, none of which address the underlying mechanical issue.<sup>3,4</sup> Long-term antifungal therapy, for instance, carries risks of hepatotoxicity, gastrointestinal upset, and drug interactions, underscoring the need for precise diagnosis.<sup>4</sup>

Retronychia occurs due to repetitive microtrauma that disrupts the distal matrix, causing the nail plate to embed into the

proximal nail fold.<sup>1,2</sup> This leads to chronic inflammation and proximal nail thickening. Risk factors include tight footwear, sports activities, or mechanical injuries. Diagnosis is primarily clinical, based on findings such as periungual erythema, pain, and thickened proximal nail plate.<sup>3,4</sup> Dermoscopy and ultrasound imaging can further support the diagnosis.<sup>5</sup>

Nail avulsion is both diagnostic and therapeutic, removing the embedded nail plate and allowing normal regrowth.<sup>6</sup> Failure to recognize retronychia can lead to persistent symptoms, secondary infections, and unnecessary medication use.<sup>1</sup>

Retronychia is a rare, "once-in-a-lifetime" diagnosis for most clinicians, often overlooked due to its similarity to more common nail disorders. This rarity underscores the need for vigilance, as diagnostic anchoring on conditions like onychomycosis can lead to unnecessary treatments and patient harm. Recognizing retronychia requires sharp clinical acumen and familiarity with its distinctive features, such as proximal nail plate thickening and pain. Collaboration with podiatry for nail avulsion is both diagnostic and curative, enabling dermatologists to provide timely, effective care while preventing complications.

## CONCLUSION

Retronychia is a rare but impactful cause of onychodystrophy. Dermatologists should maintain a high index of suspicion in refractory cases of nail dystrophy. Early diagnosis, interdisciplinary care, and appropriate treatment can prevent complications and improve quality of life.

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**Corresponding Author:**

Katheryn Bell  
675 Pebble Beach Dr  
Huntingburg, IN 47542  
Email: [bellkale@iu.edu](mailto:bellkale@iu.edu)

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