

# Enhancing Cosmetic and Functional Improvement of Recalcitrant Nail Lichen Planus With Resin Nail

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Lichen planus (LP) is one of the few conditions that may cause permanent and debilitating nail loss. Recurrence is common despite treatment with first-line therapies including intralesional and systemic corticosteroids. We describe application of a resin nail for recalcitrant LP of the fingernail for improved cosmesis and functionality.

## Practice Gap

Lichen planus (LP)—a chronic inflammatory disorder affecting the nails—is prevalent in 10% to 15% of patients and is more common in the fingernails than toenails. Clinical manifestation includes longitudinal ridges, nail plate atrophy, and splitting, which all contribute to cosmetic disfigurement and difficulty with functionality. Quality of life and daily activities may be impacted profoundly.<sup>1</sup> First-line therapies include intralesional and systemic corticosteroids; however, efficacy is limited and recurrence is common.<sup>1,2</sup> Lichen planus is one of the few conditions that may cause permanent and debilitating nail loss.

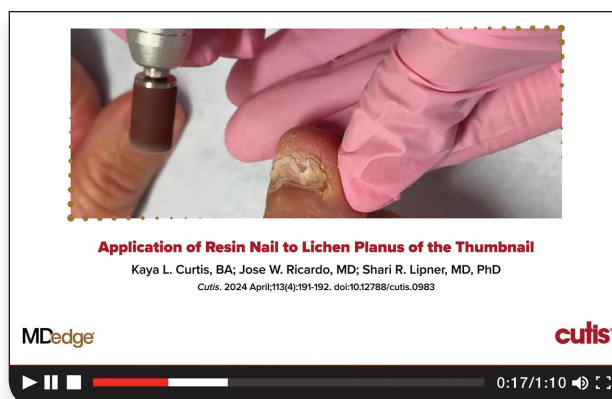
## Tools

A resin nail can be used to improve cosmetic appearance and functionality in patients with recalcitrant nail LP. The composite resin creates a flexible nonporous nail and allows the underlying natural nail to grow. Application of resin nails has been used for toenail onychodystrophies to improve cosmesis and functionality but has not been

reported for fingernails. The resin typically lasts 6 to 8 weeks on toenails.

## The Technique

Application of a resin nail involves several steps (see video online). First, the affected nail should be debrided and a bonding agent applied. Next, multiple layers of resin are applied until the patient's desired thickness is achieved (typically 2 layers), followed by a sealing agent. Finally, the nail is cured with UV light. We recommend applying sunscreen to the hand(s) prior to curing with UV light. The liquid resin allows the nail to be customized to the patient's desired length and shape. The overall procedure takes approximately 20 minutes for a single nail.



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The video is available online at [www.mdedge.com/dermatology](http://www.mdedge.com/dermatology).

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A, Lichen planus of the thumbnail before application of resin nail.  
B, Fingernail after application of resin nail.

We applied resin nail to the thumbnail of a 46-year-old woman with recalcitrant isolated nail LP of 7 years' duration (Figure). She previously had difficulties performing everyday activities, and the resin improved her functionality. She also was pleased with the cosmetic

appearance. After 2 weeks, the resin started falling off with corresponding natural nail growth. The patient denied any adverse events.

### Practice Implications

Resin nail application may serve as a temporary solution to improve cosmesis and functionality in patients with recalcitrant nail LP. As shown in our patient, the resin may fall off faster on the fingernails than the toenails, likely because of the faster growth rate of fingernails and more frequent exposure from daily activities. Further studies of resin nail application for the fingernails are needed to establish duration in patients with varying levels of activity (eg, washing dishes, woodworking).

Because the resin nail may be removed easily at any time, resin nail application does not interfere with treatments such as intralesional steroid injections. For patients using a topical medication regimen, the resin nail may be applied slightly distal to the cuticle so that the medication can still be applied by the proximal nail fold of the underlying natural nail.

The resin nail should be kept short and removed after 2 to 4 weeks for the fingernails and 6 to 8 weeks for the toenails to examine the underlying natural nail. Patients may go about their daily activities with the resin nail, including applying nail polish to the resin nail, bathing, and swimming. Resin nail application may complement medical treatments and improve quality of life for patients with nail LP.

### REFERENCES

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