

A noninvasive method for treating ingrown nail recurrence due to incomplete matricectomy



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SURGICAL CHALLENGE

Excision of an ingrown nail and partial matricectomy is a commonly used technique. In some cases, however, the matrix is not totally destroyed, resulting in regrowth of the resected nail plate that in turn leads to inflammation and aggressive retreatment. The nailfold is excised to expose the nail matrix fully, and the matrix is cauterized more thoroughly. Though this is a widely used method, it can cause scars and contractures.

SOLUTION

We treat these cases with a cotton splint combined with our previously reported orthonyxia method.¹ An ethanol-soaked 5-mm-diameter cotton pellet is packed between the inflamed periungual tissue and the nail plate by using a plastic filling instrument (Fig 1). We then apply G-aenial Bond dental adhesive (GC, Tokyo, Japan) to the cotton pellet and the adjacent nail plate. After ultraviolet curing, Transcen LV flow resin (Nexobio, Cheongju, South Korea) is applied to the same site. Before curing, we smear the surface of the cotton pellet to make sure that the resin gets entangled with the cotton fibers. This splint is hardened by ultraviolet curing afterward. Next, a superelastic wire is applied onto the nail plate as reported in our previous publication to



Fig 1. Plastic filling instrument used to insert the cotton pellet. The blade of this instrument enables the cotton to reach beneath the nail plate and surround it.

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prevent the nail plate from being buried in the nail bed (Fig 2). The patient revisits the clinic after the devices have been separated, and we evaluate the need for retreatment. The device stays on the nail plate for about 3 to 6 months.

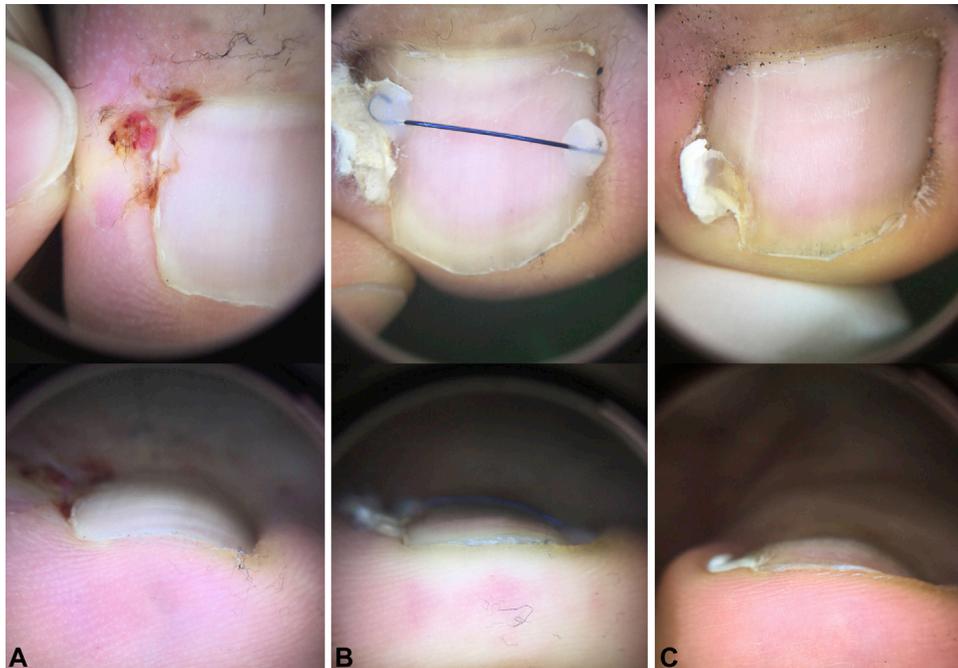


Fig 2. Recurrent ingrown nail treated with a cotton splint and superelastic wire. **A**, Recurrent ingrown nail 3 months after partial matricectomy. Granulomatous tissue can be seen at the proximal lateral nailfold. **B**, Two months later, the cotton splint has become loose as the inflammation decreased and the lateral nail plate emerges above the lateral nailfold. The splint and wire were removed, and the cotton splint was reapplied. **C**, Three months later, the cotton splint is still in place, facilitating healthy growth of the nail plate. Notice the white line on the nail plate, which is the previous lateral margin.

REFERENCE

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