Inexpensive Solution for Habit-Tic Deformity

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The Cutting Edge: Challenges in Medical and Surgical Therapeutics

REPORT OF CASES

Two men, the first aged 52 years and the second aged 72 years, were diagnosed during the reporting period as having habit-tic deformity. Because of similarities in the history and examination findings of these patients, I will discuss their cases jointly. Neither of the patients stated this problem was his chief concern, but on identification of the condition, both admitted it had been present for many years. Findings for both patients included dystrophy of the median aspect of both thumbnails, primarily consisting of somewhat parallel transverse ridges extending from the proximal nail fold to the distal aspect of the nail plate (Figure 1). These patients also demonstrated an apparent lack of cuticle and slight widening of the cuticular sulcus on the thumbnails. They report having frequently picked at the proximal nail fold and admitted they were often embarrassed about the appearance of their nails. No other fingernails were involved. The skin of the proximal nail folds was free of dermatitis in both patients. Relevant medical history and record of medications taken revealed no consistencies between the patients. Family histories for both patients were unremarkable for similar conditions. No therapy had been tried up to this point in either of the patients because this condition had not been previously diagnosed.

THERAPEUTIC CHALLENGE

Habit-tic deformity of the thumbnails is a common condition described in several major dermatologic texts and 1 text that focuses mainly on nails. Onychotillomania, as it is often called, is usually not the chief concern for a dermatologic visit but is frequently an afterthought by the patient or an incidental finding noted by the physician. Patients typically confirm a long duration of this condition and frequently have no explanation or insight as to its origin. Patients are usually affected on 1 or both thumbnails. The condition is usually acquired in adulthood and felt to be related to a repetitive nervous habit of picking or pushing the cuticle of the thumbnail back. The presentation may vary, but typically the nail has a several-millimeter-wide longitudinal defect in the midline nail plate composed of small transverse, somewhat parallel, ridges leading laterally outward. The changes often arise from a somewhat hyperkeratotic proximal nail fold. Personal observation in multiple patients has also revealed a widened space between the proximal nail fold and the nail plate with an absent cuticle. Some will distinguish this from median nail dystrophy of Heller (dystrophia unguium mediana canaliformis, onychodystrophia mediana canaliformis, and Heller disease), but it is difficult in some patients to do so. Classically, median nail dystrophy of Heller manifests as a longitudinal split or canal with a characteristic fir-tree pattern of the transverse ridges. Some authors consider this a subset of habit-tic deformity.

A limited number of articles regarding the topic are identified by MEDLINE search; the condition is given little attention in most major dermatology textbooks. Rarely are any therapeutic options discussed for habit-tic deformity, and no follow-up photographic documentation of successful therapy is provided in any texts, including those focusing on nails. The treatment suggested by several sources for this condition involves bandaging the fingernails to minimize manipulation, which often is regarded as cosmetically unacceptable by patients. While this option is probably effective, the low compliance rate reduces the likelihood of improvement. There is a 2005 report of multivitamins producing normalization of dystrophic nail plates in 2 patients denying any picking habit. Because of the relationship with habit tics and obsessive-compulsive disorder, behavioral or pharmacologic therapy can be an option, including serotonin reuptake inhibitors or other treatment of obsessive-compulsive behaviors. In my experience, traditional remedies, such as behavioral modification and physical bandages, have been unsuccessful in predictably producing an improved or a
normal nail; thus, patients would likely not comply with a regimen of such treatment for any sustainable duration.

**SOLUTION**

After discussing the relationship to habitual external trauma with the patients, a trial of cyanoacrylate adhesive (a type of instant glue) was suggested to be placed at the proximal nail fold to provide a sustainable barrier to trauma and to artificially recreate the absent cuticle. Patients were allowed to procure any available products in this category that would achieve the desired effect and were advised to apply the product 1 to 2 times weekly to maintain buildup at the cuticular sulcus. On average, about 1 application per week was required. After 3 to 6 months of use, a predictable progressive normalization of the nail unit was noted in both patients up to the point of having a completely normal nail.

Patient 1 achieved a normal nail with the aforementioned regimen (Figure 2) and then discontinued therapy for 6 months, at which time he began to pick at his nails again and induce typical changes of habit tic deformity. Reinstitution of therapy caused a normalization of both thumbnails within several months, after which he was able to maintain a normal nail without therapy and artificially recreate the absent cuticle.

The mechanism of action for improvement is probably related to the presence of an obstacle to picking. This obstacle must alter habitual behavior in a way that can be maintained after discontinuation of therapy, as happened with patient 1. The presence of an artificial cuticle may benefit the patient by providing a barrier from other external factors, such as microbiologic or chemical insults. Further investigation to confirm these results would include a contralateral control comparison (ie, 1 treatment nail and 1 control nail). Additionally, identifying patients with classic median nail dystrophy of Heller (without the habit tic component) may prove further the usefulness of this inexpensive therapy. This therapy has been and is being used in several other patients of mine, with predictable success. One noteworthy caution that must be discussed with patients is the possibility of developing an allergic contact dermatitis reaction to the acrylate components, which may require the abandonment of this type of therapy for other historically suggested alternatives. This brief case series is presented to demonstrate a successful treatment of habit tic deformity of the thumbnails with (1) low risk, (2) high cosmetic acceptability, (3) predictably maintainable results, and (4) negligible costs. It is limited by the small cohort number, the lack of control of the product used, and the method and frequency of product application. Since the completion of the reporting period, 10 other patients, including 3 women, have been identified and are following similar protocols with success.

**REFERENCES**


**Accepted for Publication:** February 23, 2010.

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**Financial Disclosure:** None reported.

**Additional Contributions:** I am indebted to Joseph Mucini, MD, for his review of the manuscript.

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Figure 2. Patient 1 demonstrates almost complete normalization of the nail plate and improved proximal nail fold, as typically seen after the interventional therapeutic trial described herein.