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Habit Tic Deformity of Bilateral Thumb and Toenails in a Young Boy: An Unusual Occurrence

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Habit tic deformity · Nail compulsive disorders · Toenails

Case Report

An 8-year-old school-going boy was brought in by his parents for slowly progressing asymptomatic nail dystrophy of both thumb and toenails for 1 year. Examination revealed loss of cuticle in bilateral thumb and toenails and slightly widened cuticular sulcus with hyperpigmentation of proximal nail folds. Thumbnails showed unusually elongated lunula extending over one-third of the nail plate. All 4 nails exhibited sharp and closely spaced horizontal ridges extending from the proximal nail fold to the distal aspect of the nail plate with a median band of depression giving a characteristic washboard appearance (Fig. 1, 2). There was no evidence of periungual dermatitis or paronychia. The rest of the finger- and toenails were normal except for the right second toenail, which demonstrated the beginning of dystrophic changes. Family history was unremarkable for similar conditions. The child has been performing well at school and in extracurricular activities. He did not display any aberrant social behaviour due to anxiety. However, he submitted that he often felt embarrassed because of nail lesions. On detailed questioning, he admitted that he regularly though unconsciously tended to

push the cuticle of the thumbnails and toenails backwards; the offending nails being the contralateral thumbnail or toenail and the ipsilateral index finger or second toe. Based on physical examination, a diagnosis of habit tic deformity with involvement of the bilateral thumb and toenails was made. The child was advised to wear socks and shoes to prevent manipulation of the toenails. He was prescribed thrice daily application of white soft paraffin on all four nails. Both child and parents were counselled and reassured that this behaviour was likely to resolve with time. Parents were advised to reward the child for positive reinforcement of the behaviour change.

Habit tic deformity is a form of nail dystrophy that results from habitual external trauma to the nail matrix [1]. The entity is classified under the broad umbrella of nail tic disorder [2]. It is caused by the conscious or unconscious rubbing and picking of the cuticle and proximal nail fold. In severe cases, the cuticle is completely damaged and the lunula may get hypertrophy. It is usually seen in adults and most often the thumbnails (unilateral or bilateral) are the primary targets. In a series of 385 patients with auto-aggressive nail conditions, 41 adults were reported to have habit tic deformity [3]. Habit tic deformity of both thumbnails has been reported in a 7-year-old girl child [4]. The present case is unique for the involvement of bilateral big toenails.

This disorder is more of a habit and there is often no anxiety prior to the fingernail manipulation or any feeling of relief after the act. It is less often associated with psychiatric comorbidities like obsessive compulsive disorder [2]. Treatment aims at the complete cessation of the habit, upon which the nail changes revert completely. A case of habit tic deformity secondary to guitar playing that persisted for over 10 years resolved spontaneously following withdrawal from the guitar [5]. Gentle massaging with bland ointment from proximal to distal 3 times a day was found to be effective in two-thirds of patients [3]. Alternatively, treatment can aim at providing a sustainable barrier to trauma and to artificially recreate the absent cuticle. Use of physical barriers like bandaging or tape application on the proximal nail fold helps both

Fig. 1. Transverse grooves on both thumbnails with median depression; note the loss of cuticle, elongated lunula, and pigmentation of the proximal nail fold.

Fig. 2. Involvement of bilateral big toenails with habit tic deformity.

by preventing the trauma and acting as an obstacle to the habit of picking. However, acceptability for cosmetic reasons may be a concern. Use of cyanoacrylate adhesive to the proximal nail fold was found to be a useful and inexpensive therapeutic option in two adult men [6]. The glue recreated the barrier between proximal nail fold and the nail plate, thereby preventing further trauma and allowing time for the nail matrix to heal. In persistent cases or in patients with coexistent psychiatric disorder, trial of serotonin reuptake inhibitors is worth trying [7].

The most significant differential diagnosis is median canalicular dystrophy of Heller (dystrophia unguium mediana canaliformis). It presents with central longitudinal splitting of the nails with multiple oblique ridges running outwardly and proximally, giving a fir-tree appearance [3]. It is a relatively rare entity of obscure pathogenesis that is devoid of damage to the cuticle. Some authors consider this a subset of habit tic deformity [5].

This case is being reported for two reasons: first because of the occurrence of habit tic deformity in a young boy and secondly because of the involvement of bilateral toenails, which has not been reported previously.

Statement of Ethics

Written consent has been obtained from the patient's parent.

Disclosure Statement

I hereby declare to have no conflict of interest regarding the paper.

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