

Bilateral Median Canaliform Dystrophy of Heller of Both Toenails in a Child

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Abstract

Median Canaliform Dystrophy of Heller is considered a relatively rare nail disorder, especially in children.

We report here the case of an 8-year-old child who consulted for a nail dystrophy of the two big toes, in whom the interview objectified a tic by scraping the two nails of the two big toes by the nails of the two thumbs which give a median canaliform Dystrophy of Heller.

Keywords: Median Canaliform Dystrophy of Heller ; Onychotillomania; Child; Foot; Morocco

Introduction

Median Canaliform Dystrophy of Heller or solenonychia is a rare condition, defined as a disorder of the nail apparatus characterized by a central longitudinal groove giving an inverted fir tree appearance, this disorder often involves the thumbs while involvement of the other digits remains rare. Here we report the case of an 8-year-old child with a habit of traumatizing the nails of both big toes with both thumbs diagnosed as median nail dystrophy.

Observation

An 8-year-old boy with a history of asthma consulted for fir tree-shaped nail ridges on both toenails that had been developing for 12 months, posing an aesthetic problem. Questioning with the parents did not reveal any notion of trauma or manipulation of the nails. There was no personal history of similar episodes or family history of similar cases. Dermatological examination found a median cleft from the proximal fold extending vertically to the distal edge of the nail of both big toes, more marked on the right with parallel transverse ridges giving a fir tree appearance (**Figure 1,2**). The rest of the fingernails and toenails were normal. So were the rest of the skin and mucous membranes. On the other hand, the paraclinical investigations were unremarkable.

The diagnosis of Median Canaliform Dystrophy of Heller was retained, confirmed by an interview with the child and his family, which revealed a tic manifested by repeated trauma to the matrix of the big toenail by rubbing with the thumb nail (**Figure 3**). The patient was referred to child psychiatry for specialized treatment with a healing cream and occlusive dressings. A periodic check-up was recommended for the child.

Discussion

Median Canaliform Dystrophy of Heller is considered as a

relatively rare nail disorder, especially in children. This term was first described by Heller in 1928 and is characterized by a single central longitudinal cleft with transverse ridges that approximate a fir tree [1]. This disorder is essentially symmetrical and affects more frequently the thumb nails than the other fingers, which is the case of our patient, with a bilateral localization at the level of the two big toes [2]. The precise cause of this nail disorder poses an etiological problem for dermatologists as it is not yet determined. The most common theory is that of repeated rubbing of the nail in the proximal fold and the underlying matrix, but other diagnoses must be eliminated, notably a glomus tumor, myxoid tumor and other tumors reported in the literature [3,4]. Some studies report familial occurrences of median nail dystrophy, one study also showed a temporal association with oral isotretinoin treatment with improvement on discontinuation of treatment and an association with dental



Figure 1



Figure 2



Figure 3

disease and macrolunule [5,6]. We have found a case report of an 11-year-old girl who developed ductal dystrophy after using periungual cryotherapy for treatment of warts [7]. The treatment of median ductal dystrophy is still far from satisfactory. If a patient suffers from obsessive-compulsive disorder or impulse control disorder and suffers from a habitual tic, a psychiatric opinion is sought with behavioral therapies. However, treatment with tacrolimus 0.1% topical ointment resulted in a considerable improvement in the appearance of the nail plate [4]. The originality of our observation lies in the rarity of Median Canaliform Dystrophy of Heller in children, especially in the toes, as it usually affects the thumb. The presence of a possible onychodystrophy should therefore be treated as a real psychotherapeutic emergency and parents should be warned of the importance of a careful examination of their children's nails.

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