Median nail dystrophy

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A 34-year-old man presented to his primary care physician with a 20-year history of painless bilateral thumbnail lesions. The patient had no history of nail trauma or infection. Both thumbs had a central linear depression in a fir tree pattern, surrounded by parallel transverse ridges (Figure 1). There was no surrounding erythema or warmth, and the nails were not tender to touch. His other fingernails and toenails were unaffected. We diagnosed median nail dystrophy.

Median nail dystrophy, also known as dystrophia unguis, mediana canaliformis, median canaliform dystrophy or solenonychia, is an uncommon nail condition affecting men and women equally. Believed to be related to microtrauma involving the nail matrix, median nail dystrophy is often symmetric, and most commonly affects the thumbs.¹⁻³ Common differential diagnoses for longitudinal nail defects include habit tic deformity, subungual skin tumours, digital mucous cyst and trachyonychia (rough nails).⁴⁻⁶ A thorough history should focus on occupational injuries and habits. Other conditions to consider include onychomycosis, lichen planus, Darier disease and psoriasis.³⁻⁵ To rule out onychomycosis, testing using a potassium hydroxide or optical fluorescence preparation, or a fungal culture are suggested. Signs of a fungal infection include fungal white or yellow chromonychia, onychauxis (thickened nails) and onycholysis with subungual debris.^{4,6} Lichen planus is very unlikely if there are no other skin or mucosal lesions (e.g., Wickham striae).^{3,5} Lichen planus-related nail splits tend to be irregular and are not typically associated with ridging or macrolunulae.^{3,5}

Although median nail dystrophy has been treated with topical corticosteroids, tacrolimus and tazarotene, there is little compelling evidence that the nail changes can be reversed.¹⁻³ Our patient elected not to pursue any interventions as the condition was purely cosmetic.

References

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Figure 1: Median nail dystrophy in a 34-year-old man. Thumbs with central feathered longitudinal lamellar split, surrounded by parallel transverse ridges (open arrows) of the nail plates, macrolunulae (shown by the white areas [red stars] between the nail fold and the remainder of the nail plate [yellow arrows]) and associated focal proximal nail fold hyperpigmentation and hyperkeratosis.

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