Answer to Dermacase continued from page 511

2. Median canaliform nail dystrophy
Median canaliform nail dystrophy is a disorder characterized by a longitudinal depression or crack appearing in the nail plate, often accompanied by several lateral projections giving the appearance of a fir tree. Patients with this disorder typically present with a crack or groove beginning at the proximal nail fold and extending for part of or the entire length of the nail. The thumb is more often affected than the other digits, and the involved nails often display enlarged lunulae.1 Although typically not indicative of systemic disease, canaliform nail dystrophy can cause considerable discomfort and functional impairment.2

Diagnosis and cause
The presentation of median canaliform nail dystrophy is distinctive, and diagnosis is often based solely on clinical findings. Recognition of median canaliform nail dystrophy is important for family physicians because this condition is often misdiagnosed as onychomycosis. Therefore, recognition of this condition can avoid the unnecessary prescribing of antifungal agents.3 The differential diagnosis for canaliform nail dystrophy should include lichen planus and nail psoriasis, as longitudinal splitting of the nail might also be associated with these conditions.1 Tumours or growths in the nail matrix might also cause splitting of the nail plate.4 Habit-tic deformity, characterized by a depression of the nail plate caused by repeated rubbing or scratching of the proximal nail fold, can also resemble median nail dystrophy.5 However, nails affected by this condition display multiple transverse ridges and lack the characteristic longitudinal splitting seen in median canaliform dystrophy.

For our patient, and for most patients, the cause of median nail dystrophy is unknown. Repeated pressure exerted on the nail bed is the most common identifiable cause.1 In fact, habitual use of personal data assistants has been associated with median nail dystrophy, likely due to repeated pressure exerted on the nail bed of the thumbs of individuals using these devices.6 Family physicians will likely see a rise in patients presenting with nail dystrophies as personal data assistants increase in popularity.

Nontraumatic causes of median canaliform nail dystrophy have been reported. In several case reports, canaliform nail dystrophy was suspected to be caused by isotretinoin therapy.5,7,8 Familial cases of median nail dystrophy have also been reported.2

Treatment
Treatment of median canaliform dystrophy is often unnecessary. Affected nails typically return to normal on their own,1 or following discontinuation of medication7,8 or traumatic activity.6 Although not typically recommended, median nail dystrophy has been successfully treated with topical ointments9 or triamcinolone acetonide injected directly into the proximal nail fold.10

Conclusion
Nail plate abnormalities are common and can have a number of different causes. Recognition of the distinctive clinical features of median canaliform nail dystrophy will improve the accuracy in clinical diagnosis of nail plate abnormalities and reduce unnecessary prescribing of antifungal drugs.

Ms Latham is a medical student at Dalhousie University in Halifax, NS. Dr Langley is Professor and Director of Research in the Division of Dermatology in the Department of Medicine at Dalhousie University.

Competing interests
None declared

References