Onychoscopy of Nail Involvement in Lichen Striatus

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A 12-year-old girl presented with multiple erythematous to violaceous papules on the left hand in a linear distribution. On examination, the lesions were extending on the middle and ring finger with involvement of the respective nails [Figure 1a]. There was longitudinal ridging, splitting, and nail plate thinning. Histopathology from the cutaneous lesions revealed a dense lymphohistiocytic infiltrate extending deep into the dermis and surrounding the hair follicle and eccrine sweat glands [Figure 1b]. Onychoscopy was done and it revealed the presence of longitudinal erythematous bands disrupting the appearance of lunula and extending proximally beneath the cuticle [Figure 2a]. Other features included onychoschizia, longitudinal ridging, and distal nail splitting with nail bed erythema in the affected region [Figure 2b]. Dermoscopy of the cutaneous lesions showed brownish to grayish granular pigmentation with dotted vessels and white scales [Figure 3].

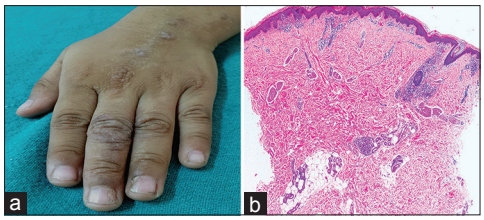

Figure 1: (a) Erythematous to violaceous papules in linear distribution with involvement of middle and ring finger nail. (b) Histology from the cutaneous lesion showing lymphohistiocytic infiltrate extending deep into the dermis and involving the hair follicle and eccrine glands (Hematoxylin and eosin; ×4)

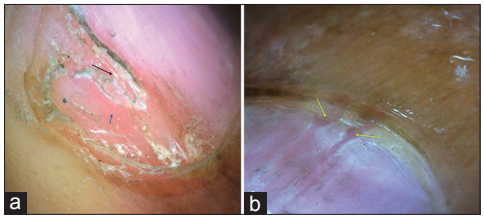

Figure 2: (a) Onychoschizia and distal nail splitting (*black arrow*) over an erythematous background (*blue arrow*) (Dino-Lite AM413ZT; ×50; polarizing). (b) Longitudinal erythematous bands (*yellow arrow*) disrupting the continuity of lunula (Dino-Lite AM413ZT; ×150; polarizing)

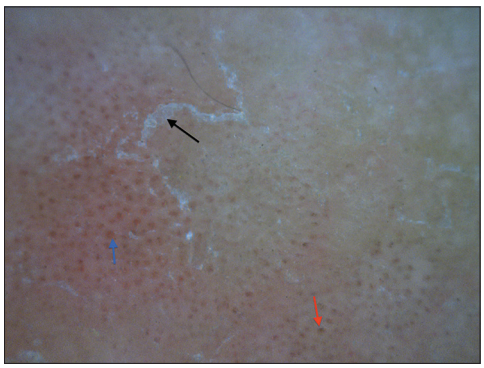

Figure 3: Polarizing dermoscopy showing white scales (*black arrow*), dotted vessels (*blue arrow*), and greyish granular pigmentation (*red arrow*) (Dino-Lite AM413ZT; ×200; polarizing)

Nail changes in lichen striatus can occur before, simultaneously, or after the appearance of cutaneous lesions.[1] Many a times, the nail changes are very subtle and may even go unnoticed. Inflammation of nail matrix leading to defective keratin synthesis is believed to be responsible for nail changes.[2] The diagnosis of nail lichen striatus includes: longitudinal ridging or splitting localized to medial or lateral portion of nail, single nail involvement, and presence of skin lesions near the nail.[3] Our patient had all three features. Usually, the disease is self-limiting but can sometimes lead to onychodystrophy.[4] Such cases require early intervention. Dermoscopy of the cutaneous lesions predominantly shows gray granular pigmentation, dotted vessels, and white scales.[5] Onychoscopy has now established itself as a reliable and consistent technique in the diagnosis and management of a number of nail diseases.[6] Onychoscopic differentiation of nail lichen planus (LP) and nail lichen

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striatus is essential as clinical differentiation is challenging at times. Onychoscopic features of nail LP include: trachonychia, chromonychia, pitting, fragmentation of the body of the nail, splinter hemorrhages, onycholysis, subungual keratosis, pterygium, anonychia, and paronychia.[7] Onychoscopic features in lichen striatus have not been reported before, to the best of our knowledge. The longitudinal erythematous bands may indicate that the pathological process leading to linear cutaneous lesions is continuous in the nail matrix as well. In other words, it may represent the blaschkoid involvement of nail matrix; however, there is a need to study more cases to reach to a conclusion. The nail bed erythema can also be a clue to ongoing inflammation affecting the nail, and such cases may be considered for active intervention to prevent irreversible onychodystrophy.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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