

Longitudinal melanonychia

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DESCRIPTION

An otherwise healthy 13-year-old boy was noted to have a discolouration arising from the nail bed of the left thumb. The lesion exhibited brisk linear transformation since it was initially noticed 4 months prior. There was no family history of melanoma, and he was not taking any medications. Examination confirmed a symmetrically pigmented lesion in the subungual area of the left thumb, measuring 4 mm in width (figure 1). There was extension of the black pigmentation into the proximal nail fold (Hutchinson's sign), measuring 1 mm in length. A 6 mm punch was used to excise a circular segment of the nail, followed by a 4 mm punch biopsy of the subungual area (figure 2). Histological examination revealed atypical, heavily pigmented cells with dendritic cytoplasm. This was deemed to be a benign lesion despite cytological atypia. The patient continues to be monitored for further progression.

Longitudinal melanonychia (LM) is defined as a longitudinally oriented band of brown-black pigment in the nail.¹ This can be due to exogenous



Figure 1 A symmetrically pigmented lesion in the subungual area of the left thumb, measuring 4 mm in width. There is extension of the pigmentation into the proximal nail fold, measuring 1 mm in length (Hutchinson's sign).



Figure 2 Intraoperative image after 6 mm and a 4 mm punch biopsies were obtained. The pigmentation is present in the proximal germinal matrix of the nail bed.

pigments (dirt, tobacco), blood or melanin.² The most common cause of LM in adults and children is melanocytic activation and benign melanocytic nevi, respectively.¹ Since approximately two-thirds of nail melanomas present clinically as LM, it is important for the clinician to be comfortable with evaluating and managing patients with these lesions.¹ An increased mortality in nail melanoma is often caused by delayed diagnosis and treatment.¹

On examination, it is often difficult to assess the potential for malignancy of LM. Features suggestive of melanoma include colour heterogeneity, blurry lateral borders and extension of the pigment into the proximal or lateral nail fold (Hutchinson's sign).¹ However, a pseudo-Hutchinson's sign is seen in approximately one-third of nail lentiginos or nevi, and other benign conditions, which was likely in this patient.³ Many melanomas start as LM, and after months to years, there will be widening of the lesion and blurring of the borders.² A biopsy should be obtained in all cases of acquired LM in adults.² Suspicion of melanoma should be raised when there is involvement of a single nail, a lesion width >6 mm, a lesion that is wider proximally than distally and nail plate dystrophy or ulceration.² Biopsy techniques include punch biopsy, shave biopsy or excisional biopsy.



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Learning points

- ▶ Approximately two-thirds of nail melanomas present clinically as longitudinal melanonychia (LM), and an increased mortality is often due to delayed diagnosis.¹ Therefore, the clinician should be familiar with the correct diagnostic approach to LM.
- ▶ Clinical features suggestive of melanoma include colour heterogeneity, blurry lateral borders and extension of the pigment into the proximal or lateral nail fold (Hutchinson's sign).¹
- ▶ A biopsy should be obtained in all cases of acquired LM in adults.² Specific indications that should prompt a biopsy include involvement of a single nail, a lesion width >6 mm, a lesion wider proximally than distally and ulceration.²

Competing interests None declared.

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