

## CORRESPONDENCE

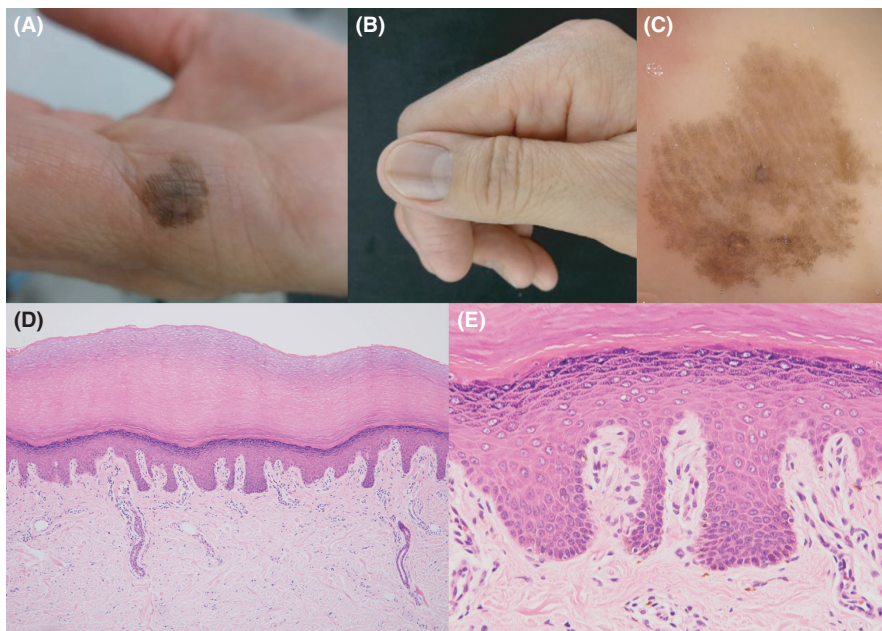
# Acral hyperpigmented macule suspicious of malignant melanoma

Dermoscopy is a noninvasive useful tool to differentiate malignant melanoma from other benign or malignant skin lesions. One of the recent advances in dermoscopy is the significance of parallel ridge pattern, which has 99% specificity in detecting both melanoma *in situ* and advanced melanoma on the acral volar skin.<sup>1</sup> However, parallel ridge pattern on dermoscopy is observed not only in malignant melanoma but also in benign acral lesions.

A 67-year-old woman was referred to us because of a well-demarcated hyperpigmented macule on the ulnar base of right little finger (Figure 1A). The lesion had appeared as a pigmented spot four years before and had enlarged gradually to form a hyperpigmented macule measuring 10 × 8 mm. In addition to this lesion, longitudinal melanonychia was observed on the right thumb (Figure 1B), which had appeared a few years before. There was no past medical history of note. The lesion on the right little finger showed parallel ridge pattern on dermoscopy under the tentative diagnosis of malignant melanoma (Figure 1C). The patient underwent surgical resection with surgical margin of 5 mm in a horizontal direction at the adipose tissue level. Postoperative

histopathological findings revealed hyperpigmentation along the basal cell layer especially at the crista intermedia profunda, that is, the epidermal rete ridges underlying the surface ridges (Figure 1D) but not atypical melanocytes or increased melanocytes (Figure 1E).

Based on the clinical history and dermoscopic findings, we first supposed that our case showed typical clinical findings of malignant melanoma. However, histopathological findings did not show increased number of melanocytes with atypical nuclei. Similar lesions with the clinical appearance of malignant melanoma *in situ* and completely lacking histopathological evidence of malignancy have been recognized as atypical melanosis.<sup>2</sup> In atypical melanosis, histopathological findings showed only focal, slight, melanocytic hyperplasia with minimal cytologic atypia along the basal layer, and these findings were not observed in our case. Parallel ridge pattern on dermoscopy is sometimes observed in benign acral lesions including pigmentation due to dye such as para-phenylenediamine, anti-cancer drug-induced hyperpigmentation on the volar skin, acral subcorneal hemorrhage, and acral pigmented macules associated with Peutz-Jeghers syndrome.<sup>1</sup> In our case, clinical histories



**FIGURE 1** Clinical features and dermoscopic and histopathological findings. (A) Well-demarcated melanotic macule on the ulnar base of right little finger. (B) Longitudinal melanonychia on the right thumb. (C) Dermoscopy, showing parallel ridge pattern. (D) Histopathology, showing basal hyperpigmentation especially at the crista intermedia profunda (H&E staining, ×100) but not with atypical melanocytes (E, ×400)

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2022 The Authors. *Journal of Cutaneous Immunology and Allergy* published by John Wiley & Sons Australia, Ltd on behalf of The Japanese Society for Cutaneous Immunology and Allergy.

excluded the possibilities of these benign lesions. Peutz-Jeghers syndrome shares some dermatological features with Laugier-Hunziker syndrome.<sup>3</sup> Laugier-Hunziker syndrome is a rare sporadic disorder which is characterized by acquired, benign hyperpigmented macules of the lips and buccal mucosa frequently associated with macular pigmentation of the fingertips and longitudinal melanonychia.<sup>4</sup> Peutz-Jeghers syndrome is associated with gastrointestinal polyposis, while Laugier-Hunziker syndrome is known to be an entirely benign disease with no systemic manifestations. Pigmented macules associated with Laugier-Hunziker syndrome show parallel ridge pattern on dermoscopy.<sup>5</sup> Although hyperpigmented macules of the lips and buccal mucosa were not observed in our case, the most reasonable diagnosis was Laugier-Hunziker syndrome. It is possible that the patient will present with multiple hyperpigmented macules on the lower lip and buccal mucosa as well as fingertips.

#### DECLARATIONS SECTION

Approval of the research protocol: No human participant was involved in this study.


Informed Consent: The patient has provided informed consent for the publication of the images submitted with this article.

Registry and the Registration No.: N/A.

Animal Studies: N/A.

#### CONFLICT OF INTEREST

The authors declare no conflict of interest.

Soichiro Kado MD   
Koji Kamiya MD, Ph.D  
Takeo Maekawa MD, Ph.D  
Mayumi Komine MD, Ph.D  
Satoru Murata MD, Ph.D  
Mamitaro Ohtsuki MD, Ph.D

Department of Dermatology, Jichi Medical University,  
Shimotsuke, Japan

#### Correspondence

Koji Kamiya, Department of Dermatology, Jichi Medical  
University, 3311-1 Yakushiji, Shimotsuke, Tochigi 329-0498,  
Japan.

Email: [m01023kk@jichi.ac.jp](mailto:m01023kk@jichi.ac.jp)

#### ORCID

Soichiro Kado  <https://orcid.org/0000-0003-3039-8331>

#### REFERENCES

1. Tanioka M. Benign acral lesions showing parallel ridge pattern on dermoscopy. *J Dermatol*. 2011;38(1):41-4.
2. Nogita T, Wong TY, Ohara K, Mizushima J, Mihm MC Jr, Kawashima M. Atypical melanosis of the foot. A report of three cases in Japanese populations. *Arch Dermatol*. 1994;130(8):1042-5.
3. Lampe AK, Hampton PJ, Woodford-Richens K, Tomlinson I, Lawrence CM, Douglas FS. Laugier-Hunziker syndrome: an important differential diagnosis for Peutz-Jeghers syndrome. *J Med Genet*. 2003;40(6):e77.
4. Baran R. Longitudinal melanotic streaks as a clue to Laugier-Hunziker syndrome. *Arch Dermatol*. 1979;115(12):1448-9.
5. Sendagorta E, Feito M, Ramirez P, Gonzalez-Beato M, Saida T, Pizarro A. Dermoscopic findings and histological correlation of the acral volar pigmented maculae in Laugier-Hunziker syndrome. *J Dermatol*. 2010;37(11):980-4.

**How to cite this article:** Kado S, Kamiya K, Maekawa T, Komine M, Murata S, Ohtsuki M. Acral hyperpigmented macule suspicious of malignant melanoma. *J Cutan Immunol Allergy*. 2022;5:114-115. <https://doi.org/10.1002/cia2.12224>