

Labial Melanotic Macule Diagnosed by Dermoscopy

Yuichiro Tsunemi, Hidehisa Saeki and Kunihiko Tamaki

Department of Dermatology, Faculty of Medicine, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8655, Japan. E-mail: ytsun-tky@umin.ac.jp
Accepted March 31, 2008.

Sir,

Labial melanotic macule is a clinically and histologically distinctive benign pigmentary abnormality of the lip (1–4). In recent years, the use of dermoscopy has proven to increase diagnostic performance in the preoperative assessment of clinically suspicious cutaneous pigment lesions (5, 6). Although this method has begun to be applied to mucosal pigmented lesions (7), so far only a limited number of cases are available (5, 6, 8, 9). We describe here a case of labial melanotic macule that was diagnosed preoperatively using dermoscopy.

CASE REPORT

A 48-year-old Japanese woman presented with a pigmented lesion on her lower lip that had appeared several years previously. She had no history of taking medication or family history of pigmentation disorder or intestinal polyposis. Clinical examination revealed a lesion on the vermilion border of the lower lip. It was a uniformly pigmented brown macule with a regular outline, 8 mm in diameter (Fig. 1). Dermoscopic examination showed linear or partially curved brown lines arranged regularly in parallel and gradually tapering toward the periphery (Fig. 2). The lesion was diagnosed from dermoscopic findings as a labial melanotic macule. Biopsy revealed mild acanthosis, basal hyperpigmentation, especially at the tip of the rete ridges (Fig. 3A), and melanophages in the dermis. There was no increase in the number of melanocytes (Fig. 3B). Masson-Fontana staining highlighted this distribution of melanin (Fig. 3C). These histopathological findings confirmed the dermoscopic diagnosis of labial melanotic macule.

DISCUSSION

Labial melanotic macule was described by Weathers et al. (1) and is a clinically and histologically distinctive benign pigmentary abnormality of the lip (1–4, 10–12). The majority of patients are young adult women with



Fig. 1. A brown macule on the vermilion border of the lower lip.



Fig. 2. Dermoscopy revealed linear or partially curved brown lines in a regular parallel pattern.

a mean age at onset of approximately 30 years. Labial melanotic macule typically appears on the vermilion border of the lower lip as a well-defined single brown to black-brown, oval macule, 2–10 mm in diameter. Some patients have multiple lesions and some lesions are located on the upper lip. Histologically, it is characterized by a mild degree of acanthosis without elongation of the rete ridges and increased basal pigmentation without melanocytic proliferation, nevoid melanocytes or cellular atypia. Melanophages are found in the papillary dermis.

Dermoscopy of labial melanotic macule has been reported to display a diffuse, brown to black, homogeneous pigmentation regularly distributed and gradually fading toward the periphery (5, 8, 9). Histologically, hyperpigmentation has been observed along the basal cell layer with no significant differences in distribution between the top and the bottom of the rete ridges (5).

Recently, however, another rather characteristic dermoscopic feature of labial melanotic macule has been reported: a parallel pattern, characterized by linear or partially curved pigmentary lines arranged regularly in a parallel manner (5, 6). Histologically, this pattern was characterized by prominent hyperpigmentation of the basal layer with accentuation at the tip of the rete ridges (5).

Neither pattern show any of the dermoscopic features that can be found in naevi and melanoma, such as pigment network, globules or streaks, whose histopathological correlation is melanocyte proliferation (5, 9).

Here, we describe an additional case of labial melanotic macule showing a parallel pattern dermoscopically.

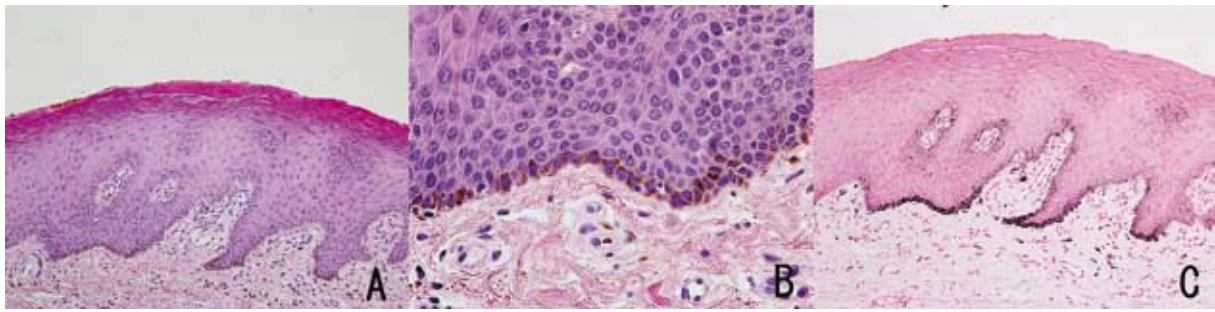


Fig. 3. Histopathological examination showed (A) mild acanthosis, basal hyperpigmentation at the tip of rete ridges, and melanophages in the dermis. (B) There was no proliferation of melanocytes (haematoxylin and eosin; A $\times 200$, B $\times 600$). (C) Highlighted basal hyperpigmentation with Masson-Fontana stain ($\times 200$).

The distribution of basal pigmentation at the tip of the rete ridges is thought to cause the parallel pattern on dermoscopy. The colour of the melanophages in the dermis will not influence the dermoscopic pattern because their number is very small compared with the prominent basal pigmentation.

A pigmented lesion on the labial mucosa is a clinical concern because malignant melanoma sometimes occurs on this site (13). Labial melanotic macule is benign and has no malignant potential (2, 4). It therefore needs no treatment provided the diagnosis is accurate. This case and previous reports suggest that pigmented macules on the lip, especially on the lower lip, which are less than 10 mm in diameter and show a typical parallel pattern on dermoscopy, can be viewed as labial melanotic macule. Dermoscopy thus does play a role in the non-invasive and preoperative diagnosis of labial melanotic macule.

REFERENCES

1. Weathers DR, Corio RL, Crawford BE, Giansanti JS, Page LR. The labial melanotic macule. *Oral Surg* 1976; 42: 196–205.
2. Ho KK, Dervan P, O'Loughlin S, Powell FC. Labial melanotic macule: a clinical, histopathologic, and ultrastructural study. *J Am Acad Dermatol* 1993; 28: 33–39.
3. Spann CR, Owen LG, Hodge SJ. The labial melanotic macule. *Arch Dermatol* 1987; 123: 1029–1031.
4. Gupta G, Williams RE, Mackie RM. The labial melanotic macule: a review of 79 cases. *Br J Dermatol* 1997; 136: 772–775.
5. Mannone F, De Giorgi V, Cattaneo A, Massi D, De Magnis A, Carli P. Dermoscopic features of mucosal melanosis. *Dermatol Surg* 2004; 30: 1118–1123.
6. Gaeta GM, Satriano RA, Baroni A. Oral pigmented lesions. *Clin Dermatol* 2002; 20: 286–288.
7. De Giorgi V, Massi D, Carli P. Dermoscopy in the management of pigmented lesions of the oral mucosa. *Oral Oncol* 2003; 39: 534–535.
8. Massi D, Nardini P, De Giorgi V, Carli P. Simultaneous occurrence of multiple melanomas? In situ on sun-damaged skin (lentigo maligna), solar lentigo and labial melanosis: the value of dermoscopy in diagnosis. *J Eur Acad Dermatol Venereol* 1999; 13: 193–197.
9. Carli P, DeGiorgi V, Cattaneo A, Giannotti B. Mucosal melanosis clinically mimicking malignant melanoma: non invasive analysis by epiluminescence microscopy. *Eur J Dermatol* 1996; 6: 434–436.
10. Buchner A, Merrell PW, Carpenter WM. Relative frequency of solitary melanocytic lesions of the oral mucosa. *J Oral Pathol Med* 2004; 33: 550–557.
11. Ishikawa Y, Sawada S, Kamide R. Labial melanosis: a proposal. *Jpn J Dermatol* 1997; 107: 1085–1094 (in Japanese).
12. Kaugars GE, Heise AP, Riley WT, Abbey LM, Svirsky JA. Oral melanotic macules. A review of 353 cases. *Oral Surg Oral Med Oral Pathol* 1993; 76: 59–61.
13. Chidzonga MM, Mahomva L, Marimo C, Makunike-Mutasa R. Primary malignant melanoma of the oral mucosa. *J Oral Maxillofac Surg* 2007; 65: 1117–1120.