

Dermoscopy as a Simple Non-Invasive Tool for Diagnosis and Monitoring of Extensive Nevus Spilus Maculosus

Nevus spilus (NS) or speckled lentiginous nevus is a benign melanocytic lesion seen in 0.2-2.3% of the population.^[1] It may be congenital or acquired, and is clinically characterized by multiple pigmented macules or papules of size ranging between 1 and 3 mm in diameter on a background of circumscribed tan macular pigmentation, usually of size between 1 and 10 cm. It is most commonly seen over the trunk and extremities.^[2] The histopathology of speckles within the NS may range from lentiginous to junctional, compound, and intradermal nevi to Spitz, blue, and neural nevi, while the pigmented background resembles café au lait macule.^[1] In this article, we report a case of large-sized nevus spilus maculosus in a child diagnosed with dermoscopy and histopathology. We have highlighted the role of dermoscopy as a simple, noninvasive tool in diagnosing and monitoring this condition.

A 13-year-old female, with Fitzpatrick skin type V presented to the skin outpatient department with multiple pigmented macules over the back for the past 8 years. There was no history of any prior treatment. The mother reported appearance of new pigmented lesions in the last 1 year. Examination revealed multiple discrete and coalescing pigmented macules of size 1-4mm with varying colors ranging from light brown to brownish black on a background of uniform tan colored pigmentation. Background pigmentation was absent in few areas [Figure 1a]. Few macules had a contrasting texture with rough and scaly surface.

Dermoscopy was done with a videodermoscope Dinolite digital microscope (Model AM7115MZT). Pigmented speckles showed brownish-black foci with a reticuloglobular pattern

[Figure 1b], whereas the background pigmentation showed a uniform brown reticular pattern [Figure 1c]. There was no evidence of any irregular pigment network or structureless areas suggestive of melanoma on dermoscopy. Further skin biopsy was done from the pigmented macules (those of recent onset) and showed follicular plugging, nests of nevus cells at the tip of rete ridges, and dermal pigment incontinence [Figure 2a]. Biopsy from the lighter background lesion revealed a single nest of nevus cells at dermo-epidermal junction and dermal pigment incontinence [Figure 2b]. Based on the above findings, a diagnosis of nevus spilus maculosus was made. The parents were reassured and counselled regarding the need for periodic follow-up and monitoring.

Dermoscopy can be used as a noninvasive tool for the diagnosis, follow up and monitoring of NS. Various patterns observed in dermoscopy of NS are reticular (most common), homogenous, globular, granular, spitzoid, and mixed.^[2] The reticular pattern seen in dermoscopy correlates with the melanin in keratinocytes and/or melanocytes along the epidermal rete ridges and the globular pattern correlates with the nests of melanocytes seen on histopathology.^[3] In atypical cases of NS, dermoscopy may reveal irregular pattern, structureless and hyperpigmented areas which can be biopsied to look for malignant changes.^[1]

Though a clinical diagnosis of nevus spilus was made in our case, the large size of the lesion, progressive nature of the disease, variation in color and texture prompted us to further evaluate using dermoscopy and biopsy to look for any malignant change. Close monitoring of patients with NS is recommended and less than 40 cases of

**Pooja Arora,
Sinu R. Mathachan,
Damini Arora,
Minakshi Bhardwaj¹**

Departments of Dermatology and ¹Pathology, Ram Manohar Lohia Hospital and Atal Bihari Vajpayee Institute of Medical Sciences (ABVIMS), New Delhi, India

Address for correspondence:

*Dr. Pooja Arora,
9547, Sector C 9, Vasant
Kunj, New Delhi, India.
E-mail: drpoojamrig@gmail.
com*

Access this article online

Website: www.idoj.in

DOI: 10.4103/idoj.idoj_190_22

Quick Response Code:



This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Arora P, Mathachan SR, Arora D, Bhardwaj M. Dermoscopy as a simple non-invasive tool for diagnosis and monitoring of extensive nevus spilus maculosus. Indian Dermatol Online J 2023;14:142-3.

Received: 01-Apr-2022. **Revised:** 06-Jul-2022.

Accepted: 08-Jul-2022. **Published:** 21-Sep-2022.

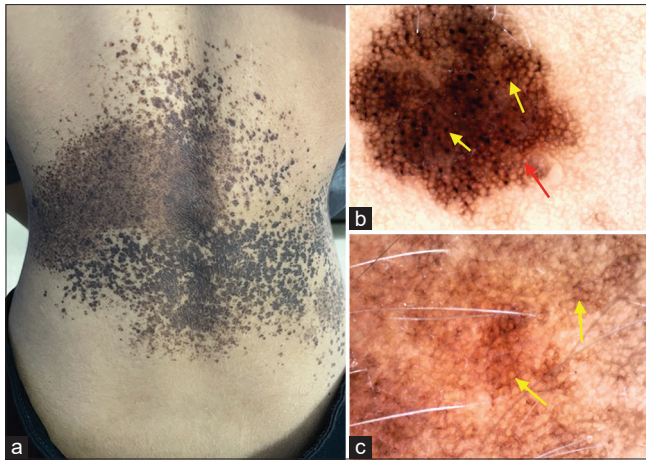


Figure 1: (a) Nevus spilus on the back showing multiple discrete and coalescing pigmented speckles of size 1-4 mm with varying colours on a background of uniform tan colored pigmented macule (b) Dermoscopy (Dinolite Model AM7115MZT/polarized/70X) of pigmented speckles showing brownish-black foci with a reticulo-globular (yellow arrow) pattern (c) Background pigmentation showing a uniform brown reticular pattern (yellow arrow)

cutaneous melanoma arising from such lesions have been reported so far.^[4,5] NS involving extensive areas showed an increased risk of malignant transformation.^[4] Further, NS maculosus carries a higher risk of malignancy than NS papulosus.^[2] Hence large, atypical, macular, and changing NS requires self-examination, clinical monitoring, and storage of serial photographs and dermoscopic images for future reference.^[1] Long-term follow-up by digital dermatoscopy and excision of lesions with dynamic changes may help in the early detection of melanoma.^[4,6] Since our case is a NS maculosus involving a larger surface area, frequent clinical and dermoscopic monitoring becomes vital.

To conclude, we report this case due to its large size and progressive nature and to highlight the role of dermoscopy both as a diagnostic tool as well as for monitoring the condition for malignant changes.

Consent statement

Informed consent and releases from the patient to publish photographs have been obtained.

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

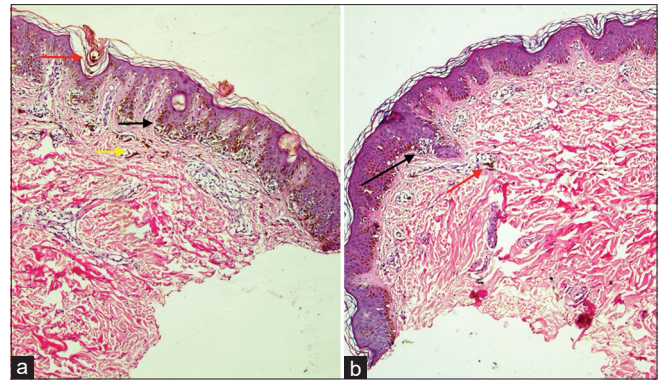


Figure 2: (a) Histopathology of the pigmented speckle showing follicular plugging (red arrow), nests of nevus cells at tip of rete ridges (black arrows) and dermal pigment incontinence (yellow arrow (H and E 10 \times)) (b) Biopsy from the lighter background lesion showing a single nest of nevus cells at dermo-epidermal junction (black arrow) and dermal pigment incontinence (red arrow) (H and E 10 \times)

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.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Risa A, Asri E, Izrul I, Tofrizal A. Clinical, dermoscopic and histopathological findings in diagnosis of nevus spilus. *HEME* 2021;3:60-6.
2. Kaminska-Winciorek G. Dermoscopy of nevus spilus. *Dermatol Surg* 2013;39:1550-4.
3. Brooks C, Scope A, Braun RP, Marghoob AA. Dermoscopy of nevi and melanoma in childhood. *Expert Rev Dermatol* 2011;6:19-34.
4. Haenssle HA, Kaune KM, Buhl T, Thoms KM, Padeken M, Emmert S, et al. Melanoma arising in segmental nevus spilus: Detection by sequential digital dermatoscopy. *J Am Acad Dermatol* 2009;61:337-41.
5. Meguerditchian AN, Cheney RT, Kane JM 3rd. Nevus spilus with synchronous melanomas: Case report and literature review. *J Cutan Med Surg* 2009;13:96-101.
6. Braga JC, Gomes E, Macedo MP, Pinto C, Duprat J, Begnami MD, et al. Early detection of melanoma arising within nevus spilus. *J Am Acad Dermatol* 2014;70:e31-2.