



# Amelanotic Meyerson's nevus dermoscopically mimicking amelanotic melanoma

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## ABSTRACT

Meyerson's nevus (MN) is a term describing melanocytic nevus with a surrounding symmetrical halo of erythema and scaling. It most commonly presents as an itchy or asymptomatic lesion on the trunk or proximal part of the upper limbs in young individuals, with male predominance. The underlying cause of MN has not been explained. Histopathologically, the features of associated spongiotic reactions are observed, including spongiosis, acanthosis, parakeratosis, lymphocytic exocytosis, as well as intraepidermal spongiotic vesicles. Dermoscopy of this phenomenon was rarely reported. No dermoscopic report on amelanotic Meyerson's nevus has been found.

The study reports a 29-year-old woman (phototype II), with a previous history of papillary thyroid carcinoma, who presented with an amelanotic nodule on her right arm. The patient reported enlargement of the lesion within the previous several weeks. Dermoscopy showed the presence of dotted, glomerular and short linear irregular vessels over a pink-yellowish background as well as the presence of a white scale. Due to the history of a growing, amelanotic lesion with polymorphic vessels, an excisional biopsy was performed. Based on histopathology the diagnosis of Meyerson's nevus was made.

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## CASE REPORT

A 29-year-old woman (phototype II), with a previous history of papillary thyroid carcinoma, presented with an amelanotic nodule on her right arm (Fig. 1A). The patient reported enlargement of the lesion in the previous several weeks. On dermoscopy, it showed dotted, glomerular and short, linear, irregular vessels spanned over a pink-yellowish background together with the presence of a white scale (Fig. 1B). Due to the history of a growing, amelanotic lesion with polymorphic vessels, excisional biopsy was performed. Based on histopathological evaluation the diagnosis of Meyerson's nevus (MN) was made (Fig. 2).

## DISCUSSION

Meyerson's nevus usually presents as an itchy or asymptomatic lesion on the trunk or proximal portion of the upper limbs in young individuals, with male predominance. Histopathologically, an associated eczema-like reaction is

observed, including spongiosis, acanthosis, parakeratosis, and lymphocytic exocytosis, as well as intraepidermal spongiotic vesicles. Although the classical description of Meyerson's phenomenon concerned nevi with an erythematous halo, later studies showed that in the case of mild spongiosis, it may be absent, as in the described case [1]. The underlying cause of MN has not been explained so far. Of note, Meyerson's phenomenon, apart from common acquired melanocytic nevi, has been described also in relation to dysplastic nevi, congenital melanocytic nevi, melanoma as well as other benign and malignant skin tumours [1–6]. There are few dermoscopic descriptions of melanocytic nevi with Meyerson's phenomenon, and to the authors' knowledge none of them concerned amelanotic MN [1–4]. It was previously stated that Meyerson's phenomenon does not modify the dermoscopic feature of the melanocytic lesion, but sometimes it may be difficult to assess due to the presence of overlying yellowish crust [1]. On the other hand,

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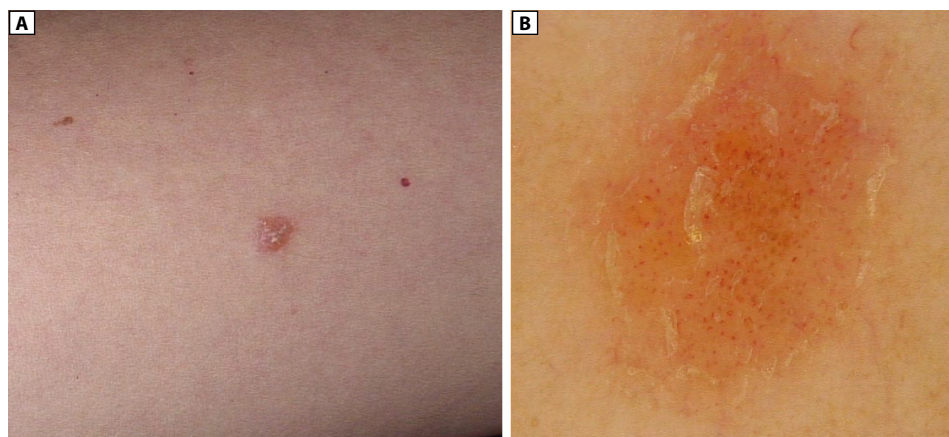
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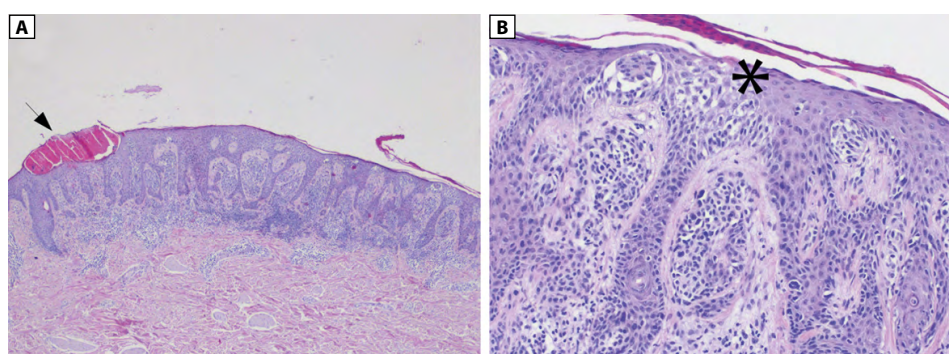
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**Figure 1.** Clinical presentation — amelanotic nodule on the right arm (A); dermoscopy shows the presence of dotted, glomerular and short linear irregular vessels over a pink-yellowish background as well as the presence of white scale (FotoFinder, camera Medicam 800 HD,  $\times 20$  magnification, non-polarized mode with ultrasound gel as an immersion fluid) (B)



**Figure 2.** A symmetrical melanocytic nevus with focal presence of a vesicle (A, arrow) and spongiosis with exocytosis of single lymphocytes and parakeratotic scale on the surface (B, asterisk) is a typical microscopic presentation of Meyerson's nevus (magn. A —  $\times 20$ , B —  $\times 100$ , H&E staining)

a recent report by Di Altobrando et al. [2] describing clinical and dermoscopic features of two congenital melanocytic nevi with this phenomenon showing worrisome dermoscopic patterns raises a question of whether this statement is still actual. The lack of the classical erythematous halo and fast growth of the lesion reported by the patient with previous oncological history influenced the decision of prompt excision of the lesion in the described case.

## CONCLUSIONS

In contrast to pigmented Meyerson's nevus, when diagnosis is possible in most cases based on clinical and dermoscopic features, dermoscopic presentation of its amelanotic counterpart seems to be unspecific. Amelanotic Meyerson's nevus is another lesion that should be considered in differential diagnoses of fast-growing tumours presenting with polymorphic vascular patterns.

## Article information and declarations

### Prior presentation

This case report has been previously reported as an e-poster during the 29<sup>th</sup> EADV Congress.

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### Author contributions

U.M.: writing — original draft preparation; M. Sławińska: conceptualization, patient's attending physician, supervision; JŻ, RJN, M. Sobjanek: writing — review and editing; WB: figures preparation, review and editing.

### Conflict of interest

The authors declare no conflict of interest.

### Ethics statement

No ethical issues.

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### Supplementary material

None.

### REFERENCES

1. Oliveira A, Arzberger E, Massone C, et al. Dermoscopy, reflectance confocal microscopy and immunohistochemical analysis in melanocytic lesions with Meyerson's phenomenon. *Dermatology*. 2014; 229(4): 297–305, doi: [10.1159/000365657](https://doi.org/10.1159/000365657), indexed in Pubmed: [25472722](https://pubmed.ncbi.nlm.nih.gov/25472722/).
2. Di Altobrando A, Neri I, Patrizi A, et al. Congenital melanocytic nevi with meyersen phenomenon: two case reports and review of the literature. *Dermatol Pract Concept*. 2020; 10(3): e2020064, doi: [10.5826/dpc.1003a64](https://doi.org/10.5826/dpc.1003a64), indexed in Pubmed: [32685277](https://pubmed.ncbi.nlm.nih.gov/32685277/).
3. Gabbi TV, Omar ED, Criado PR, et al. Clinical, dermoscopic and histopathological evaluation of the Meyerson nevus: case report. *An Bras Dermatol*. 2010; 85(5): 681–683, doi: [10.1590/s0365-05962010000500012](https://doi.org/10.1590/s0365-05962010000500012), indexed in Pubmed: [21152793](https://pubmed.ncbi.nlm.nih.gov/21152793/).
4. Richey P, Radfar A, Kirkorian AY. Blue areas on dermoscopy of a congenital nevus with Meyerson phenomenon. *J Am Acad Dermatol*. 2015; 73(5): e161–e163, doi: [10.1016/j.jaad.2015.07.004](https://doi.org/10.1016/j.jaad.2015.07.004), indexed in Pubmed: [26475555](https://pubmed.ncbi.nlm.nih.gov/26475555/).
5. Rodins K, Byrom L, Muir J. Early melanoma with halo eczema (Meyerson's phenomenon). *Australas J Dermatol*. 2011; 52(1): 70–73, doi: [10.1111/j.1440-0960.2010.00698.x](https://doi.org/10.1111/j.1440-0960.2010.00698.x), indexed in Pubmed: [21332699](https://pubmed.ncbi.nlm.nih.gov/21332699/).
6. Bollea-Garlatti LA, Molinari LM, Galimberti GN, et al. Melanoma with meyersen's phenomenon: clinical and dermoscopic features. *Actas Dermosifiliogr*. 2016; 107(3): 255–257, doi: [10.1016/j.ad.2015.06.013](https://doi.org/10.1016/j.ad.2015.06.013), indexed in Pubmed: [26546031](https://pubmed.ncbi.nlm.nih.gov/26546031/).