Dermatology Practical & Conceptual

A Pink Nodule With White Halo: Dermoscopy of Halo Melanoma

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Introduction

Halo phenomenon consists in an area of depigmentation around a skin lesion. It represents a benign regression phenomenon most associated with acquired nevi [1]. Very rarely, a hypopigmented halo can also occur around melanomas (halo melanoma, HM). Dermoscopy may help to distinguish them from common halo nevi (HN).

Case presentation

We report the case of a 63-year-old man with a nodular, amelanotic lesion on the back surrounded by an achromic halo. The patient reported that the lesion occurred 1 year before, with a progressive increase in size during the last 5 months. The lesion had become itchy, developing a vitiligo-like halo. Physical examination showed a symmetrical, reddish nodule, 8 mm in diameter, surrounded by a whitish area of about 2.5 cm x 2 cm. No other areas of depigmentation were detected on total body examination (Figure 1, A and B). Dermoscopy revealed central whitish and blue areas on a homogeneous pink-red background and polymorphous vascular pattern characterized by arborizing, hairpin and linear irregular vessels, mainly arranged at the periphery. No pigment network was detected (Figure 1, C and D). Histology showed achromic atypical melanocytes aggregated in the dermis, without epidermotropism (Figure 2A). A perilesional lymphocytic infiltration with fibrosis at the periphery of the nodule was observed. Immunohistochemical analysis was positive for melanocytic markers but did not show basal melanocytes in the area of epidermidis surrounding the nodule (Figure 2B). Total-body positron emission tomography scan results were unremarkable. The diagnosis of dermal melanoma was finally made (Breslow thickness 2.4 mm, non-ulcerated). Wider local excision and sentinel node biopsies were negative. The patient was disease free at 12 months follow-up.

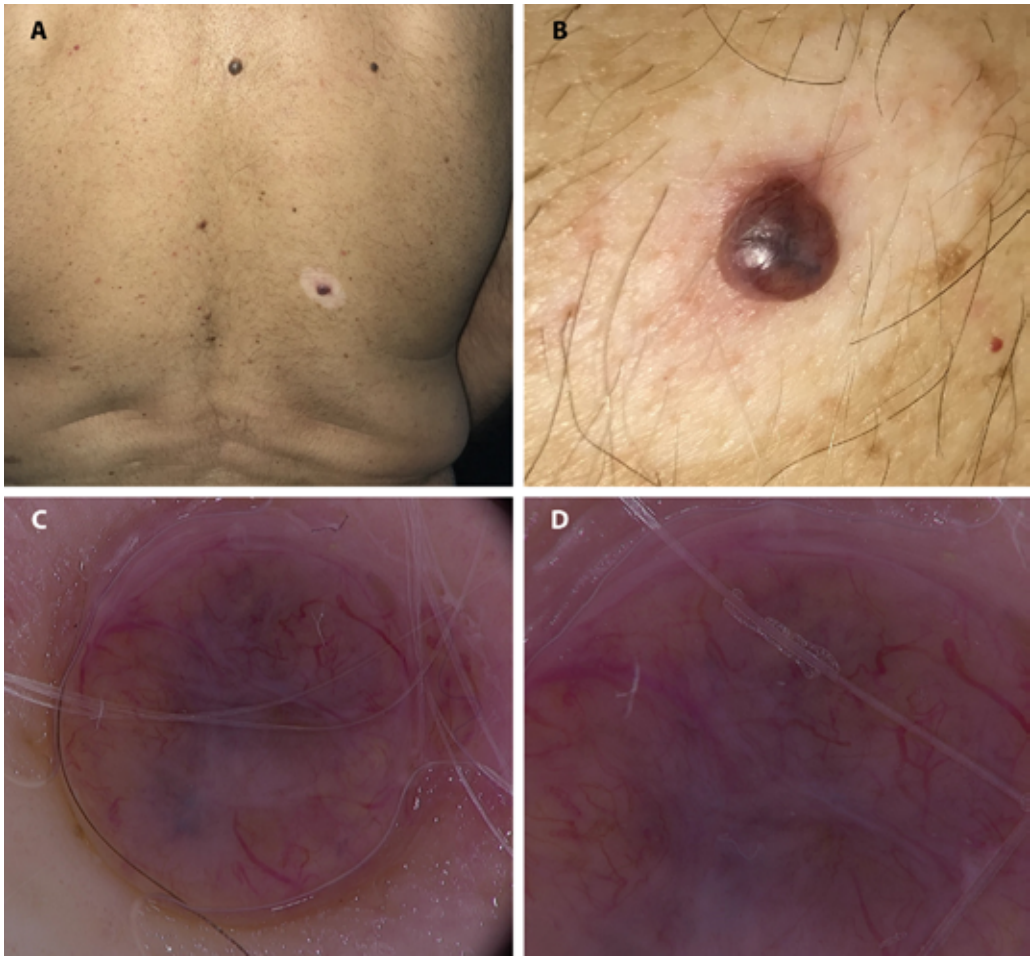

Figure 1. (A) Clinical overview of the patient. (B) Naked-eye appearance of amelanotic halo melanoma as a reddish papule surrounded by an achromic halo. (C) Dermoscopy showed central whitish and blue areas on a homogeneous pink-red background and polymorphous vascular pattern. (D) Close-up of dermoscopic view.

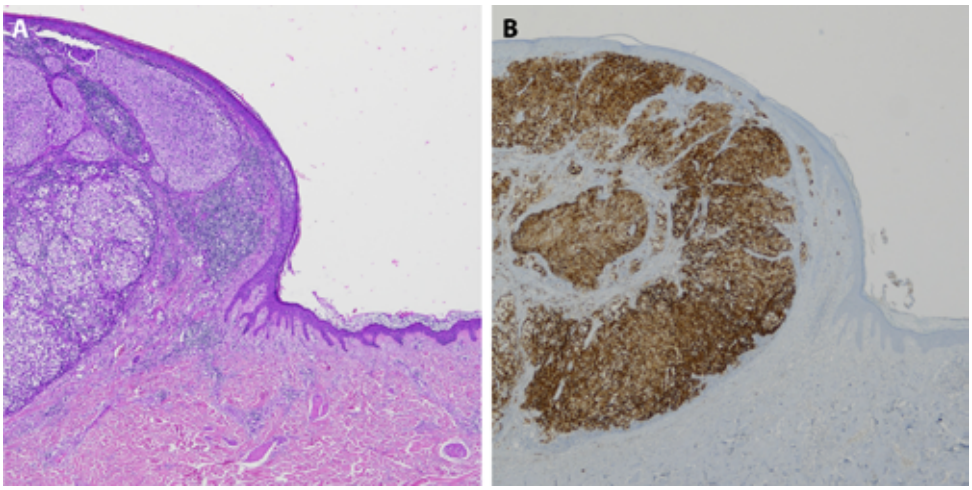

Figure 2. (A) Dermal proliferation of atypical achromic melanocytes with nodular dermal expansion and collarette formation at the periphery (H&E, 4x). (B) Immunohistochemistry supports the melanocytic phenotype and emphasizes the lack of junctional melanocytes in the epidermis straddling the collarette (HMB45 immunostaining with hematoxylin counterstain, 4x).

Conclusions

HN occurs in about 1% of the general population while HM is rarer, with only few cases reported in literature [1]. Both HN and HM appear as a melanocytic lesion surrounded by a rim of white halo. The main distinguishing clinical feature is that the shape of the achromic halo tends to be more asymmetric in HM compared to HN [1]. HM also

seems to occur at older age. There are only a few reports dealing with dermoscopy of HM, characterized by melanoma-specific multicomponent patterns with atypical pigmented network, irregular dots/globules, streaks, blotches, blue-white veil and atypical vascular structures [2]. In our patient the absence of the pigmentary network and the polymorphous vessels in asymmetric arrangement did not allow to rule out cutaneous melanoma metastasis, even if hypopigmented peripheral halo has been very rarely reported in such cases [1]. Histology did not highlight primary melanoma criteria, as ulceration, intraepidermal component, presence of associated nevus or regression. However, the absence of primitive melanoma in another site, as revealed by instrumental exams, led us to conclude for the diagnosis of primary dermal melanoma with peritumoral achromic halo.

HM is the most worrisome differential diagnosis of HN. In most cases, dermoscopy may provide useful additional information to clinical assessment, especially about the vascular pattern. However surgical excision and histopathological examination are mandatory especially in case of achromic nodular lesion like in our patient.

References

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