Dermatology Practical & Conceptual

Dermoscopic Features of External Ear Melanoma: A Case Series

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Introduction

External ear melanoma (EEM) is a rare condition, corresponding to 1%-4% of all cutaneous melanomas. It affects mainly individuals in the sixth decade of life, being predominantly observed in white men, in the auricular helix. The most common subtype that have been reported is the superficial spreading melanoma (40.1%), followed by the lentigo maligna (33.7%) [1]. EEM usually exhibits the classical features of facial or extra-facial melanoma, both clinically and dermoscopically [2]. The majority of these melanomas are diagnosed in early stages, when the Breslow thickness is less than 2 mm, in 75% of patients [1]. We report eight clinical cases of EEM and their dermoscopic findings, diagnosed at an early stage, emphasizing the importance of the routine clinical examination of the ears in the dermatological consultation.

Case Presentation

Eight patients (7 men and 1 woman) with biopsy-proven diagnosis of melanoma were analyzed. The median age was 68 years (range, 54–82 years). Two were located on the right helix, 3 on the left helix, 1 on the right lobe, 1 on the left antihelix and 1 on the left antitragus. All of them presented as a single lesion and only two patients noticed its appearance before consultation. Clinically, they were pigmented brown macules, with the exception of one that presented as a multicolored, slightly raised lesion. Most of them showed asymmetrical shape. Upon dermoscopy, in 6 out of 8 lesions, we found features of lentigo maligna, such as asymmetric pigmented follicular openings, rhomboidal structures and dark brown homogeneous areas without obliterated hair follicles (Figure1, A-F), 1 lesion presented dark brown homogeneous areas with obliterated hair follicles (Figure 1G) and 1 exhibited criteria for superficial

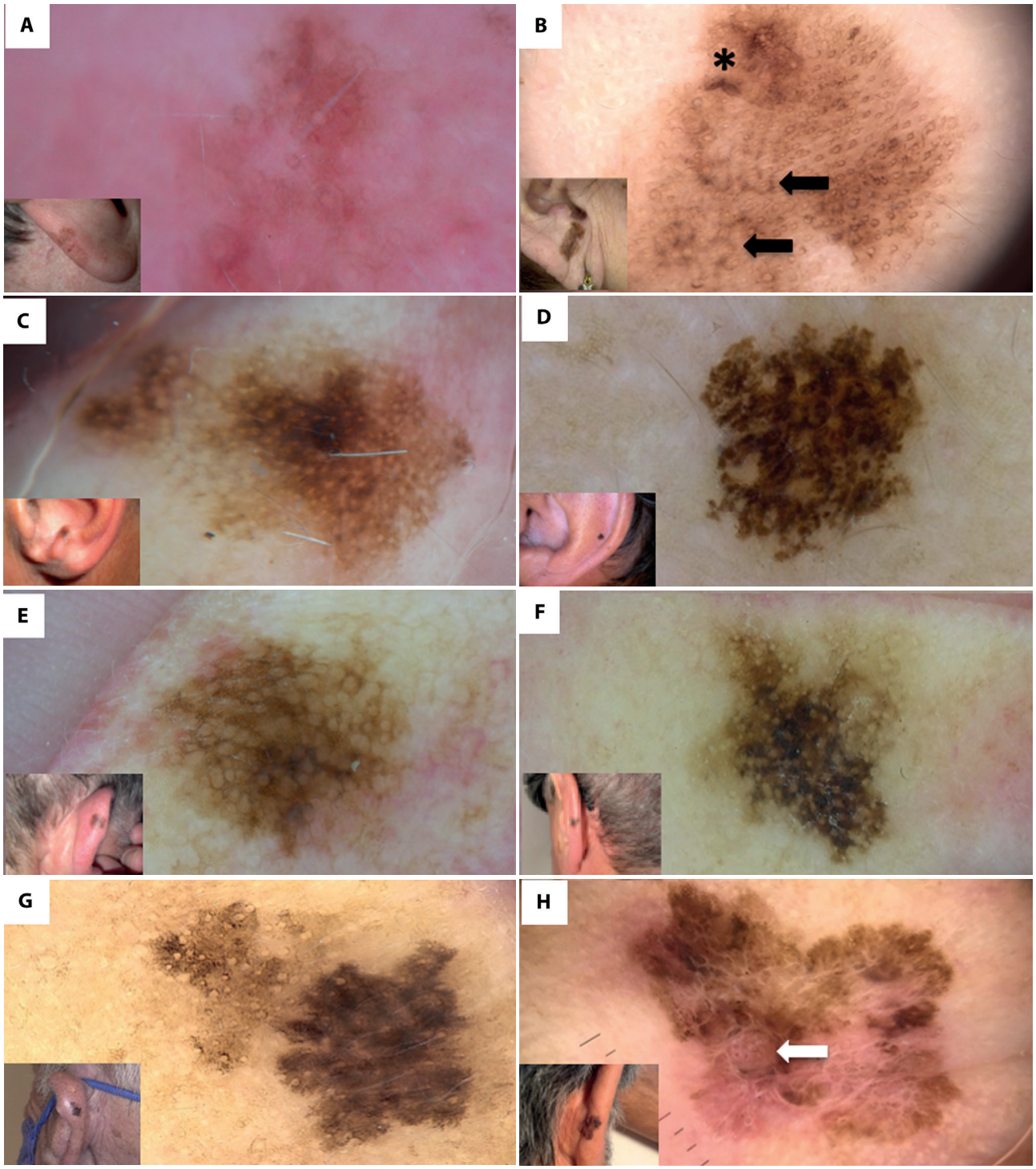

Figure 1. Clinical and dermoscopic images of external ear melanomas. Dermoscopic examination developed. (A,B) Asymmetric pigmented follicular openings, and concentric circles. (B) Zig-zag pattern (black arrows) and some rhomboidal structures (black asterisk). (C) Annular-granular pattern. (D,E) Rhomboidal structures. (F) Dark brown homogeneous areas without obliterated hair follicles. (G) Dark brown homogeneous areas with obliterated hair follicles. (H) Multicomponent pattern with multiple colors, atypical pigment network, negative network, irregular blotches and dotted and linear irregular vessels distributed peripherally (white arrow).

spreading melanoma with a multicomponent pattern with atypical pigment network, negative network, irregular blotches and atypical vessels (Figure 1H). Clinical and demographic data, dermoscopic findings and histopathologic result are detailed in **Table 1**.

Conclusions

In the dermoscopic findings of this EEM case series we achieved similar results to those in previous reports, showing classical dermoscopic features of facial and extra-facial melanomas.

Table 1. Clinical and demographic data, dermoscopic findings and histopathological subtype of external ear melanoma patients.

Patient #	Age (Years)	Sex	Anatomical site	Single lesion (Yes/No)	Dermoscopic Findings	Histopathological subtype
1	57	M	Right helix	Yes	Asymmetric pigmented follicular openings, concentric circles	Lentigo maligna
2	70	F	Right lobe	Yes	Asymmetric pigmented follicular openings, zig-zag pattern, rhomboidal structures	Lentigo maligna
3	55	M	Left antihelix	Yes	Annular-granular pattern, rhomboidal structures	Lentigo maligna
4	54	M	Left antitragus	Yes	Annular-granular pattern, rhomboidal structures, dark brown homogeneous areas without obliterated hair follicles	Lentigo maligna
5	74	M	Right helix	Yes	Gray color, annular-granular pattern, rhomboidal structures	Lentigo maligna
6	73	M	Left helix	Yes	Asymmetric pigmented follicular openings, rhomboidal structures, dark brown homogeneous areas without obliterated hair follicles	Lentigo maligna
7	82	M	Left helix	Yes	Annular-granular pattern, rhomboidal structures, dark brown homogeneous areas with obliterated hair follicles	Lentigo maligna melanoma, Breslow 0,6 mm
8	65	M	Right helix and auricle	Yes	Multicomponent pattern with atypical pigment network, negative network, irregular blotches and atypical vessels	Superficial spreading melanoma, Breslow 1,2 mm

Face-specific dermoscopic criteria of melanoma are asymmetric pigmented follicular openings, concentric circles, annular-granular pattern, rhomboidal structures, and homogeneous areas. Extra facial melanoma features in general include atypical pigment network, angulated lines, irregular dots and/ or globules, irregular streaks/ pseudopods, irregular blotches, regression structures, blue-white veil, negative network, shiny white structures, milky-red areas, and atypical vascular pattern [3]. Concerning melanoma subtype, unlike previous reports, lentigo maligna was more frequent than superficial spreading melanoma in our series. 6 out of 8 cases were melanomas in situ, the other 2 were invasive melanomas (Breslow thickness 0.6 and 1.2 mm, respectively).

To conclude, the importance of routine clinical examination of the ears during dermatological consultations is reinforced, recommending the use of the dermatoscope when evaluating single lesions in this location, in order to recognize an early melanoma. Early diagnosis of EEM directly impacts on survival and dermoscopy has been shown to aid in the correct diagnosis.

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