Rare presentation of eczema-like amelanotic melanoma of the forearm with its dermoscopic differentiation

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Thin amelanotic melanomas could be described as great masquerades as they may imitate inflammatory diseases (e.g. psoriasis, eczema), skin neoplasms (Bowen disease, basal cell carcinoma), actinic keratosis or Spitz nevi. What is more, these diagnostic difficulties refer to both small and large lesions. The only chance for the clue of melanoma in such cases can arise after dermoscopic examination. Dermoscopy is a valuable tool for the diagnosis of pink or non-pigmented skin lesions, which was proved by numerous previously published studies [1].

We present a rare case of amelanotic melanoma in the form of a pink and brown macule with fine desquamation of its surface (Figure 1 A). The lesion was localized on the right forearm of a 65-year-old female. Even though it has been present for a few years, despite a few dermatological consultations, the suspicion of melanoma has never arisen. Dermatological examination revealed a multicomponent pattern composed of symptoms of neoangiogenesis with the presence of multiple polymorphic vessels, regression with the occurrence of multiple black dots, multiple grey and brown dots and slate globules with areas resembling lichen planus-like keratosis at the periphery. White structureless areas in the centre of the lesion and slight scaling and remnants of the pigment at the periphery were seen (Figures 1 B–D). Due to the suspicion of melanoma, the lesion was totally surgically excised and the histological examination confirmed the diagnosis of melanoma in situ. One year later a 73-year-old female was referred by a GP to our clinic for a routine skin examination. A pink and grey macule was present on her left forearm (Figure 1 E). The patient could not recall for how long she had it, but confirmed that the lesion had changed within last year. The dermoscopic examination revealed a multicomponent pattern composed of symptoms suggesting solar lentigo with the presence of a honey-comb pattern at the periphery, fine disrupted reticulate light brown pigmentation and regression presented as dispersed, grey dots on the pink background (Figures 1 F–H). The suspicion of regressed melanoacanthoma was proposed but due to the occurrence of the extensive area of regression the whole lesion was excised. The histological examination confirmed the primary diagnosis of solar lentigo. A 45-year-old female patient was examined due to the presence of an asymptomatic, solitary pink, rounded macule with a rough scaling surface (Figure 2 A). This lesion evolved within 2 months and according to clinical presentation resembled neoplasm, the dermoscopy has been performed. The dermoscopic picture (Figure 2 B) revealed the presence of multiple, hyperkeratotic spicules localized in follicular ostia without the presence of vessels. The performed mycological examination revealed the fungal infection of *Microsporum* spp. A 35-year-old male patient was examined due to the presence of an asymptomatic, solitary red, oval, indurated plaque with a glaze surface on his forearm (Figure 2 C). The lesion expanded within several months 2 years ago. The primary diagnosis of the patient was basal cell carcinoma. The dermoscopic examination revealed the presence of multiple branching, serpentine vessels located on the orange-yellow background, which could be suggestive of granulomatous disease especially *necrobiosis lipoidica* (Figure 2 D). Histopathology confirmed that dermoscopic diagnosis.

Amelanotic or hypomelanotic melanomas can present as a solitary macule, plaque, papule or nodule, so the data obtained from the anamnesis and clinical presentation might be crucial for further diagnostic steps. The presence of a solitary, several centimetre-sized large pink lesion on the forearm of an over 60-year-old female narrows the differential diagnosis to inflammatory (num-

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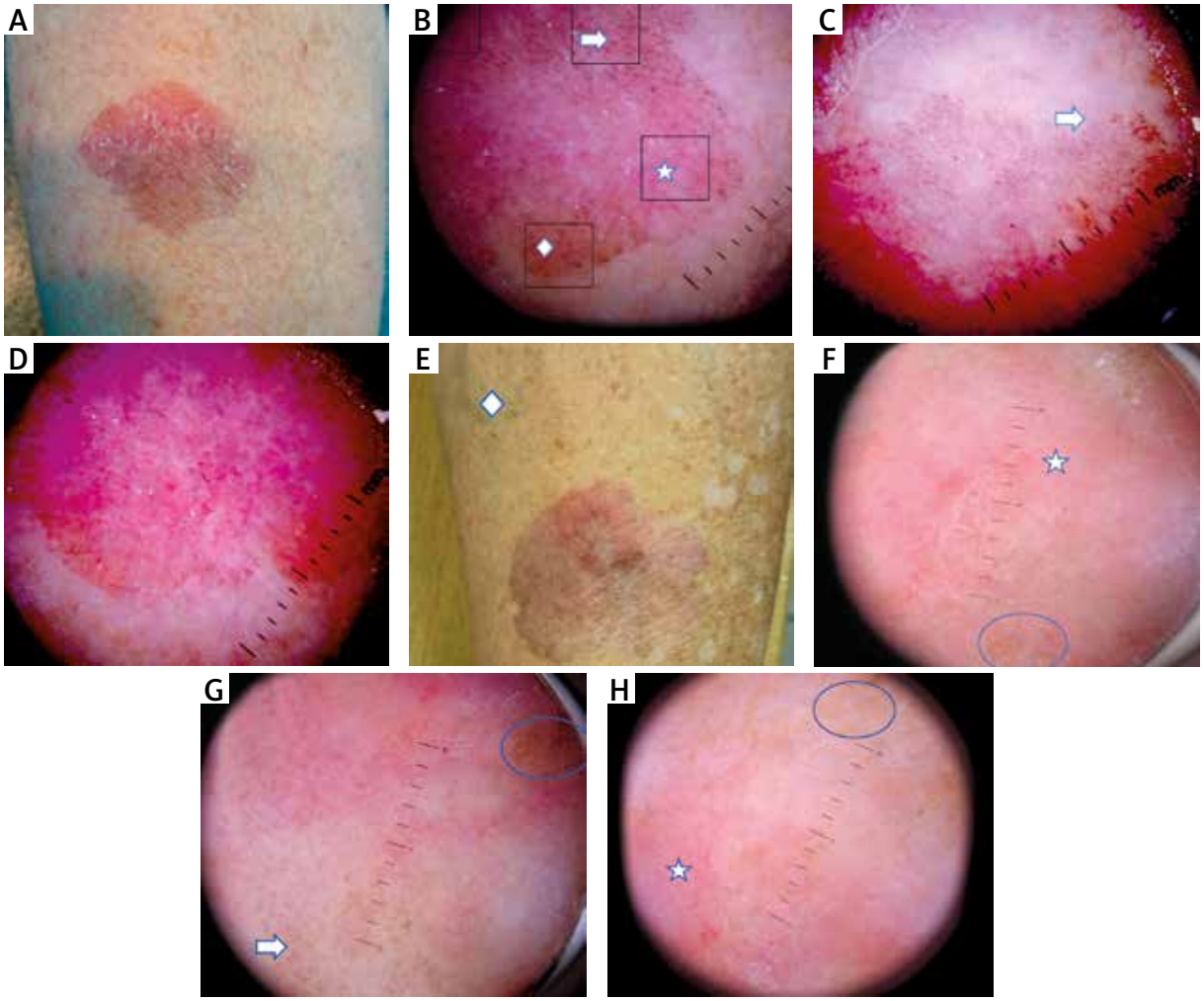

Figure 1. A – Clinical presentation of case 1 – eczema-like amelanotic melanoma in situ – an irregularly pigmented brown and pink macule of 5 cm, with slight desquamation on the surface localized on the anterior right forearm. **B–D** – Dermoscopic presentation (case 1) showed the presence of atypical, polymorphic vessels (star), irregularly distributed grey and brown dots and globules (regression structures – arrow) with remnants of brown pigment at the periphery (rhombus). **E** – Clinical presentation of case 2 (solar lentigo) showed the presence of an irregularly pigmented grey and pink macule of 6 cm on the left forearm. **F–H** – Dermoscopic presentation (case 2) revealed the honeycomb pattern/remnants of pigment (circle) occurring as multiple, dispersed grey dots, which indicated the regression (arrow) on the pink background without visible vessels (star)

mular eczema – E, psoriasis – P, verrucous lichen planus – LP) or infectious (cutaneous leishmaniasis – L, tinea – T) diseases and early-stage skin neoplasms (Bowen disease – BD, BCC in situ, melanoma, mycosis fungoides – MF), actinic keratosis (AK) or regression of melanoacanthotic seborrheic keratosis (SK) [1]. The twin cases presented above – the eczema-like melanoma (Figures 1 A–D), which is a very rare variant of amelanotic-hypomelanotic melanomas, compared with similary looking SK (Figures 1 E–H) – showed the great utility of dermoscopy. The most striking difference was the presence of atypical polymorphic vessels and pronounced residual brown and grey pigmentation of the melanoma. The non-invasive differential diagnosis can be established also in the above-mentioned diseases as they have specific dermoscopic symptoms such as: glomerular vessels with the whitish scaling (P), dotted vessels with intraepidermal vesicles (E), spermatozoid vessels (MF), Wickham network surrounded by dotted vessels (LP), thin arborizing vessels at the periphery of the lesion with/without erosion and blue-grey dots and globules (BCC in situ), clustered dotted and glomerular vessels with yellow scale and with/without erosion (BD), pink pseudo-network with/without rosette structures (AK) or eczema with yellow tears, polymorphic vessels and white starburst pattern (L) [1–3]. Di Giorgi *et al.* have recently published a retrospective analysis of prospectively collected data carried out during a 10-year period (2003–2013) of 1321

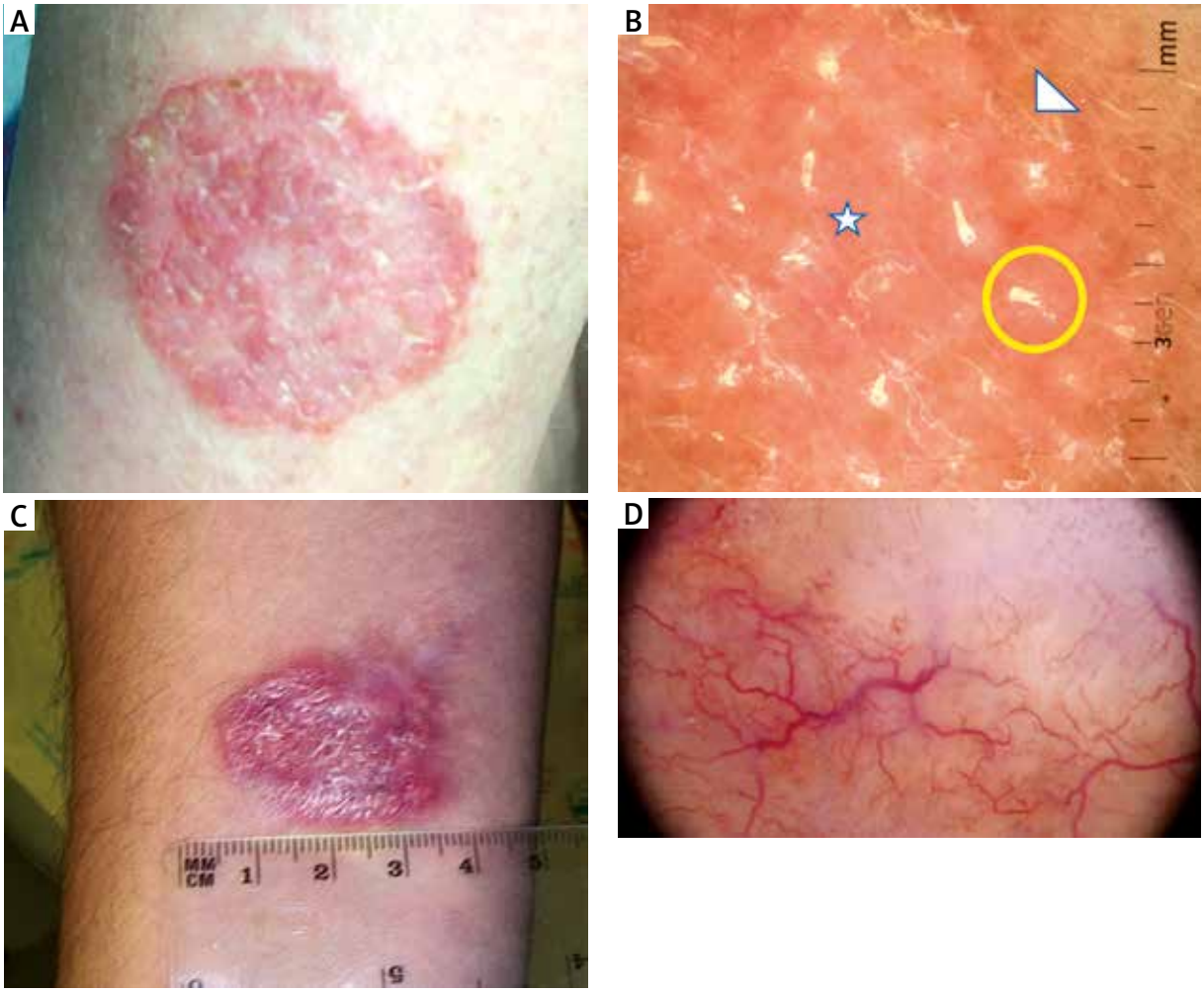

Figure 2. A – Clinical presentation of case 3 – fungal skin infection indicated the presence of the well-demarcated, round, red macule of 6 cm with peripheral scaling and rough surface on the right forearm. **B** – Dermoscopic presentation (case 3) showed the presence of multiple, keratotic spicules occurring in follicular ostia (circle) with a fine scale at the periphery (triangle) localized on the pink background (star). No vessels have been revealed. **C** – Clinical picture (case 4) of the red, indurated, non-ulcerative plaque, of 2.5 × 3 cm clinically suggesting basal cell carcinoma – necrobiosis lipoidica. **D** – Dermoscopic picture of case 4 demonstrated the presence of multiple, branching serpentine vessels distributed regularly on the orange-yellow homogenous background – necrobiosis lipoidica

patients, who were diagnosed with truly amelanotic plantar melanoma (TAPM) [4]. As only 20.7% of those patients had a correct preoperative diagnosis, the authors categorized the TAPMs as eczema-like, verruca-like, angioma-like lesions [4]. The study highlighted a crucial dermoscopic feature of TAPMs, the 'erythematous homogeneous area' (with an atypical polymorphous vascular pattern and dotted, globular, and glomerular vessels) as a characteristic of the plantar region, however according to the authors' knowledge and experience, had not been described in nonacral amelanotic melanomas so far. To our best knowledge, the dermoscopic signs of tinea on the hairless skin other than tinea nigra have not been described so far. Based on its clinical presentation, dermoscopic symptoms could widely differ depending on the degree of inflammation (vesicles, pustules, crust, erosions, irregular vessels) and desquamation (from thick hyperkeratosis to fine scale and follicular spicules). The diagnostic clue in the differential diagnosis of the pink solitary macule is the presence, type and arrangement of vessels with additional dermoscopic criteria [3]. The last but not least dermoscopic criterion in the final analysis is the colour of background as indicated in our case 3. Typical yellow-orange background coexisted with elongated, branching serpentine vessels was highly suggestive of necrobiosis lipoidica in the advanced stage [3]. In incipient lesions dermoscopy revealed comma-shaped vessels or network-shaped/hairpin-like vessels [3].

Conflict of interest

The authors declare no conflict of interest.

References

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