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CLINICAL LETTER

Dermoscopy of dermal duct tumour

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Dear Editor,

Dermal duct tumour (DDT), the rarest among the four histopathologic variants of poroma, which include hidroacanthoma simplex, classical poroma and poroid hidradenoma, is a benign skin adnexal neoplasm which harbours differentiation towards the intradermal portion of the sweat apparatus.[1] Dermoscopic findings of DDT are not well-defined, with most studies focusing on poroma exclusively. Only two cases on the dermoscopic findings of DDT have been reported.[2] Here, we describe a case of DDT including its dermoscopic features.

An otherwise healthy 38-year-old woman with a 4-year history of a slow-growing, painless papule on the scalp was referred to our Dermatology unit. Upon physical examination, the lesion appeared translucent with well-defined borders, measuring 6 × 6 mm in diameter (Figure 1a). On dermoscopy, the lesion showed a red-orange colour with yellowish structureless areas and eccentrically located blue-grey ovoid nests, a small erosion and a vascular pattern consisting of linear irregular and branched vessels of different length and calibre (Figure 1b).

Histopathologic examination revealed a circumscribed, entirely dermal proliferation of non-palisading poroid (i.e. small basaloid cells with scant cytoplasm) and cuticular (i.e. larger cells with brightly eosinophilic dense cytoplasm) cell aggregates with occasional central *foci of necrosis* (Figure 1c,d). There was no evidence of squamous or sebaceous differentiation or significant atypia. Immunohistochemical staining with carcinoembryonic antigen (CEA) highlighted the luminal border of ductal structures (Figure 1e). The final diagnosis was DDT.

DDT can develop at any age but mainly occurs in the elderly and is often misdiagnosed as other skin tumours. Unlike hidroacanthoma simplex and classical poroma, which commonly involve the extremities and the palms or soles respectively, DDT frequently occurs in the head and neck region.

A complete understanding of its pathogenesis is still lacking, although gene fusions as YAP1-MALM2 and YAP1-NUTM1 seem to be involved in the tumorigenic process.[3] Some dermoscopic features such as branched vessels with rounded endings, white interlacing areas around vessels, yellow structureless areas, milky-red globules and poorly visualized vessels, albeit not easily distinguishable from those of other skin neoplasms, showed high specificity (82.0%) and low sensitivity (62.8%) for poroma.[4] Some additional dermoscopic features with low specificity are erosions, polymorphous vessels, glomerular vessels, comedo-like openings and milia-like cysts.

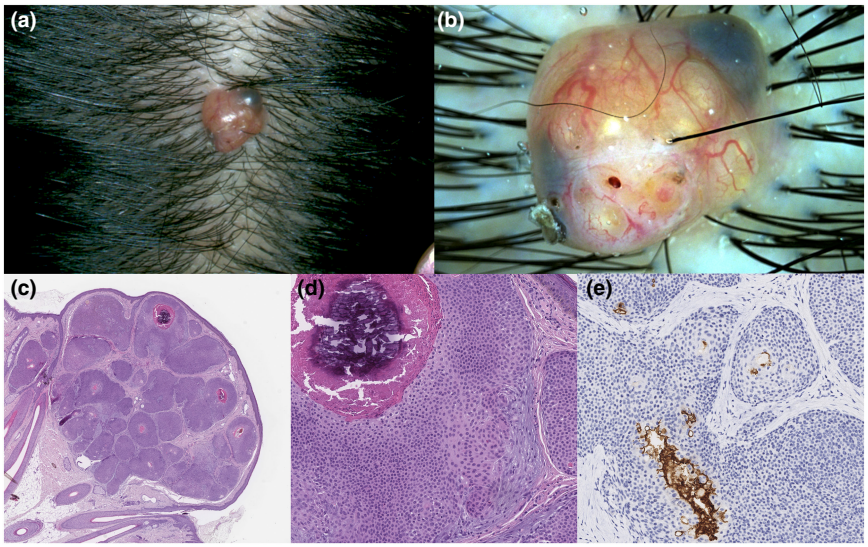

FIGURE 1 (a) Well-circumscribed papule measuring 6 mm on the scalp (b) dermoscopic examination revealed red-orange colour with yellowish structureless areas, blue-grey ovoid nests and linear irregular and branched vessels (polarized dermoscopy, 10×). (c) Histopathological features consist of a well demarcated tumour composed of small nodules of keratinocytes (haematoxylin and eosin, original magnification: ×50). (d) At higher magnification, histopathology shows poroid and cuticular cells with areas of necrosis, without connection with the epidermis (haematoxylin and eosin, original magnification: ×200). (e) Immunohistochemical staining with carcinoembryonic antigen highlights the ductal differentiation (anti-carcinoembryonic antigen antibody, original magnification: ×200).

The correlations between dermoscopic and pathological findings of poroma are poorly characterized. Yellowish structureless areas could be associated with neoplastic cells proliferation, while arborising vessels are visible in the subepidermal layer.

In a recent observational case–control study on dermoscopic and histopathological findings of poromas, two patients with pigmented DDT were reported.[2] In both cases, grey-yellow pigmented lobules separated by septa and branched vessels with rounded endings were detected. None were observed in our patient.

Since DDT can mimic other benign or malignant skin neoplasms and may anecdotally evolve into porocarcinoma and dermoscopy alone is not enough to distinguish them, histopathologic examination is required.[5]

In conclusion, we report new dermoscopic features of DDT, supporting the role of dermoscopy as an ancillary diagnostic tool. Further studies, aimed at assessing DDT dermoscopic findings, are required to better differentiate poroma variants from other cutaneous neoplasms.

AUTHOR CONTRIBUTIONS

All authors have made substantial contribution to the work and have approved the final version of this article.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

All available information is contained within the manuscript.

PATIENT CONSENT

Written informed consent was obtained from the patient for publication of this report and accompanying images.

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