Dermoscopic and reflectance confocal microscopic presentation of relapsing eccrine porocarcinoma

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CLINICAL PRESENTATION

A 63-year-old woman presented with an exophytic polypoid tumor on her left arm, adjacent to a previous scar. An eccrine porocarcinoma (EPC) had been excised 10 months before presentation (Fig 1, *A*).

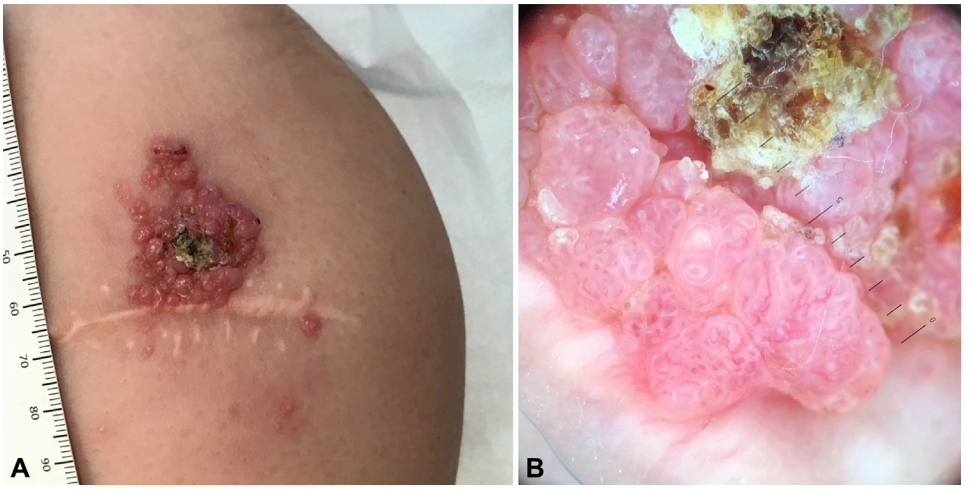

Fig 1. Clinical and dermoscopic presentations of relapsing eccrine porocarcinoma. **A**, A poorly defined exophytic tumor with multiple clustered pink papules on the left arm, 3 cm in maximum diameter, adjacent to a previous scar; few satellite papules are seen. **B**, Dermoscopy reveals a lobular arrangement of multiple polymorphic vessels (ie, linear-irregular, arboriform, and coiled) surrounded by peripheral white-pink halos; ulceration is also seen.

DERMOSCOPIC APPEARANCE

Lobular aggregates were seen with a diffuse arrangement of focused and unfocused polymorphous (ie, linear-irregular, arboriform, and coiled) vessels within, surrounded by a white-pink halo; ulceration was also noted (Fig 1, *B*).

CONFOCAL MICROSCOPY APPEARANCE

Reflectance confocal microscopic (RCM) features are shown in Fig 2.

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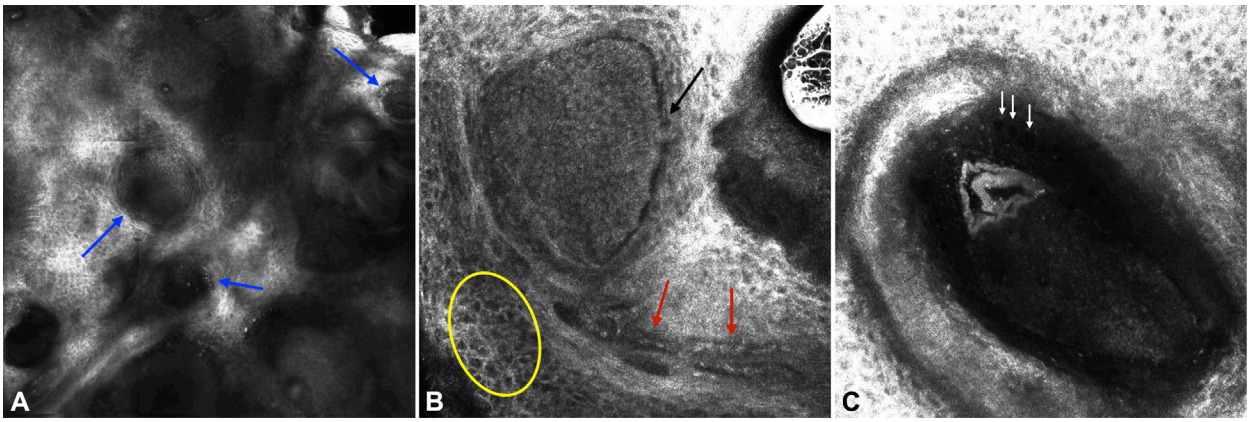

Fig 2. Reflectance confocal microscopy appearance of relapsing eccrine porocarcinoma. **A**, Mosaic image (1.5 mm × 1.5 mm) at the epidermal level enables the observation of round refractile tumoral islands (blue arrows) surrounded by dark stroma; multiple atypical, nonpalisading, small, cuboidal cells with dark nuclei and bright cytoplasm are seen within. **B**, Detail of a tumoral island (black arrow) surrounded by elongated and tortuous canalicular vessels (red arrows) and typical (yellow circle) honeycomb pattern (basic image, 0.5 mm × 0.5 mm). **C**, Roundish dark structures corresponding to areas of ductal differentiation (white arrows) within a nest are also seen. Dark stroma surrounding clustered atypical bright cells is featured in detail (basic image, 0.5 mm × 0.5 mm).

HISTOLOGIC DIAGNOSIS

The clinical, dermoscopic, and confocal microscopic correlation suggested the diagnosis of relapsing EPC, which was supported after obtaining a punch biopsy specimen. The histopathologic examination revealed multiple nests and cords of neoplastic poroid cells separated by confluent sheets of intervening stroma, both on the reticular and papillary dermis (Fig 3, *A*). Scattered areas of incipient tubular differentiation stained positive for carcinoembryonic antigen (Fig 3, *B*).

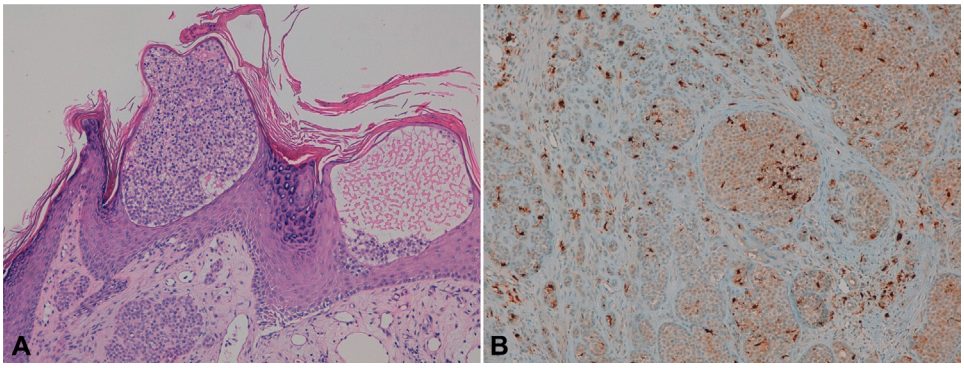

Fig 3. Histopathologic examination of relapsing eccrine porocarcinoma. **A**, Ulcerated tumor with an irregular infiltrating border on the reticular dermis. Multiple intraepidermal and dermal nests and cords of small poroid tumoral cells are seen. (Hematoxylin–eosin stain; original magnification, ×200.) **B**, Incipient tubular differentiation is highlighted by positive carcinoembryonic antigen staining.

KEY MESSAGE

EPC is a rare malignant sweat gland tumor.[1] We showed that aggregates of poroid cells were seen clustered in nests, surrounded by dark stroma and canalicular vessels on RCM, also correlating to white-pink halos observed on dermoscopy. Round dark structures within the nests reflected its ductal differentiation. Therefore, dermoscopy and RCM can provide valuable noninvasive clues for the diagnosis and follow-up of patients with EPC.[2] Our case highlights not only the aggressive behavior of relapsing EPC but also the novel cytomorphologic features under RCM. These findings should be further explored for possible presurgical assessment of EPC considering its high local recurrence rate.

REFERENCES

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