Pigmented eccrine poroma of the palm clinically mimicking a seborrheic keratosis

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Eccrine poroma (EP) is a benign neoplasm of the eccrine terminal duct, composed of epithelial cells that show tubular differentiation. EP often presents as a reddish nodule with a predilection for the distal extremities. This report describes a lesion with the clinical and dermoscopic findings of a seborrheic keratosis. However, histopathologic examination found an alternative diagnosis of pigmented EP on the palm, a rare variant of EP in a highly unusual location.

Abbreviation used:

CEA: Carcinoembryonic antigens
EP: Eccrine poroma

CASE REPORT

An 84-year-old Indian woman presented with a 5-year history of an asymptomatic hyperpigmented verrucous nodule on her left palm. It measured 8 × 5 mm and had a stuck-on appearance with a sessile base (Fig 1, *A* and *B*). There were no other similar lesions elsewhere, and systemic examination was unremarkable. The initial clinical impression was that of a seborrheic keratosis on the palm, an extremely unlikely location. A shave biopsy of the lesion was performed.

Histopathologic examination found a verrucous lesion with anastomosing downgrowths (Fig 2, *A*). There were horn cysts scattered throughout the tumor, and there was no sharp demarcation between keratinocytes of the epidermis and the lesion. Many of the cells contained brown melanin pigmentation (Fig 2, *B*). The cells showed moderate amounts of eosinophilic cytoplasm with ovoid nuclei exhibiting minimal nuclear pleomorphism and containing some nucleoli. The initial clinical impression was that of seborrheic keratosis on an unusual palmar location. On closer examination, some ductal structures were seen (Fig 2, *C*), which were highlighted by immunostaining with polyclonal antibodies against carcinoembryonic antigens (CEAs) (Fig 2, *D*). The diagnosis of the lesion was pigmented EP.

DISCUSSION

The pigmented form of EP is rare and usually occurs in nonacral sites,[1] unlike the other EP variants. Our case report stands out by its location on the palm and, importantly, its striking clinical similarity to seborrheic keratosis.

The diagnosis of EP is essentially histopathologic. Pigmented EP is characterized by the presence of melanin in the tumor cells and colonization by melanocytes. The mechanism leading to melanocyte incorporation in these tumours is not well understood. Several of the hypotheses proposed include: (1) activation of persistent melanocytes in the eccrine acrosyringium under the influence of tumor-related growth factors (including endothelin-1, stem cell factor, and nerve growth factor), which are known to promote proliferation, survival, adhesion, and migration of melanocytes[2,3] or (2) migration of melanocytes from surrounding epidermis or nearby hair follicles.[4]

Besides being clinically similar to a range of other benign and malignant tumours, EP is also considered a great dermoscopic imitator. Cases of EP displaying arborizing telangiectasia and blue-grey ovoid nests,

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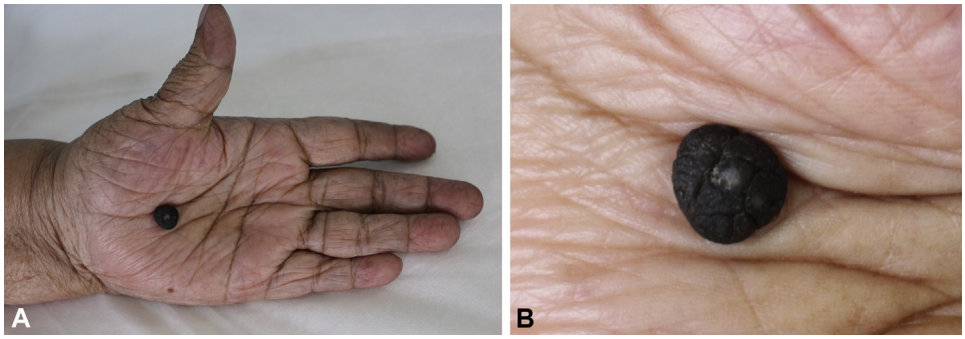

Fig 1. **A**, Hyperpigmented verrucous lesion on left palm. **B**, Close-up view of nodule.

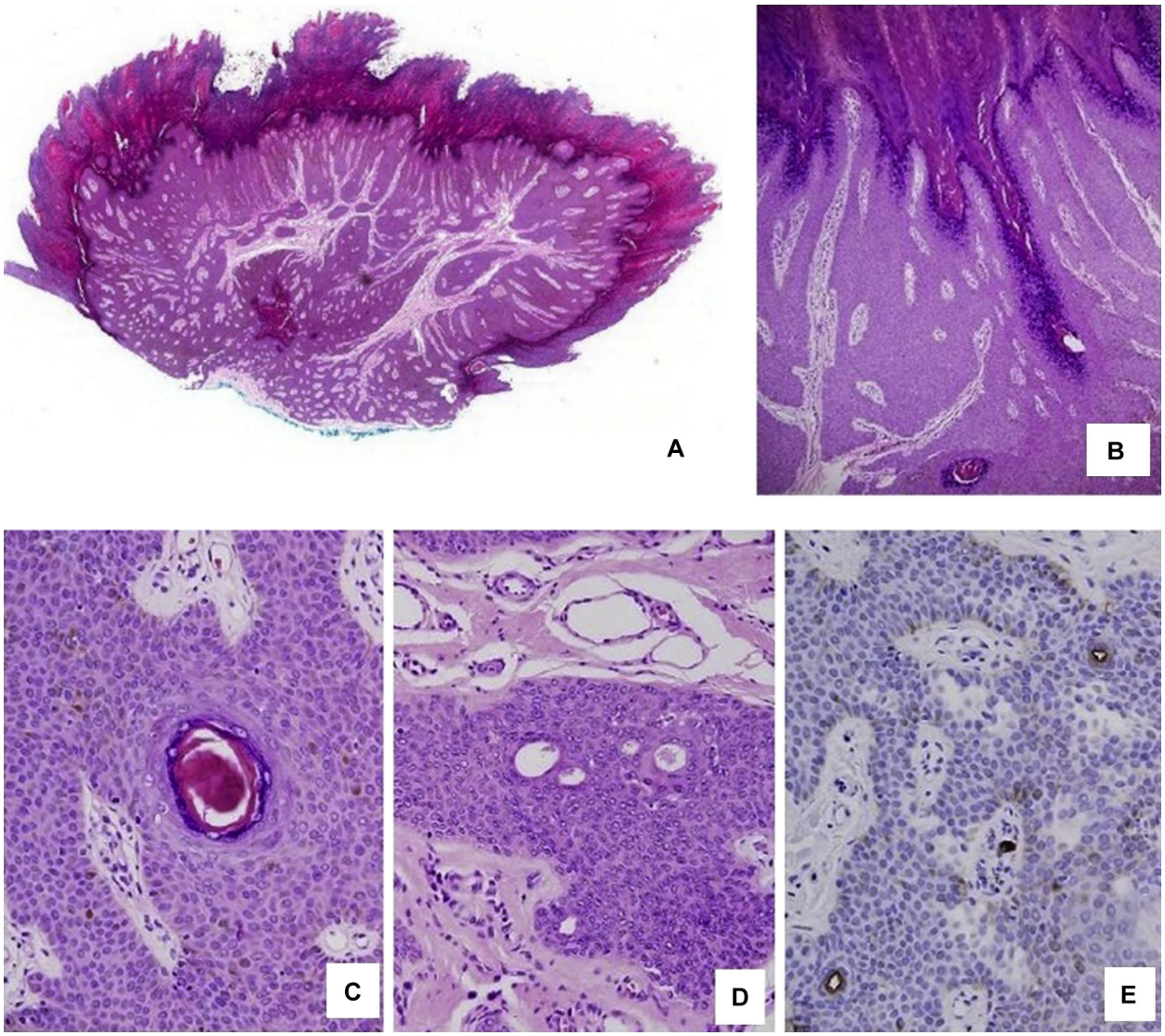

Fig 2. **A-C**, Photomicrographs of hematoxylin-eosin–stained section of tumor. **D**, Slide stained by immunohistochemistry with polyclonal CEA antibodies, highlighting ductal structures.

resembling pigmented basal cell carcinoma have been reported.[5] EP can also have dermoscopic findings of comedolike opening and perivascular white halos, mimicking seborrheic keratosis.[6] The standard therapy for EP is surgical excision. Because there are reports of recurrence or even malignant

progression into eccrine porocarcinoma, appropriate follow-up is advised for all patients.

The similarities between pigmented EPs and other cutaneous lesions, including seborrheic keratoses, can be very striking. A definite diagnosis can only be clinched through histopathologic results.

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