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CASES FOR DIAGNOSIS

Asymptomatic Depressed Nummular Erythema of the Palm

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Clinical History

A left-handed, 47-year-old woman with no personal or family history of interest was seen for a lesion of the left hand that had developed 3 years earlier.

Physical Examination

On examination, the patient presented a depressed, nummular erythema measuring 13 × 12 mm, with well-defined, thickened borders. The lesion was slow-growing and was situated on the thenar eminence of the left-hand (Figure 1); it was asymptomatic except on contact with detergents.

Motor and sensory neurological examination of the hand was normal and no locoregional lymphadenopathies or other associated lesions were detected on general examination.

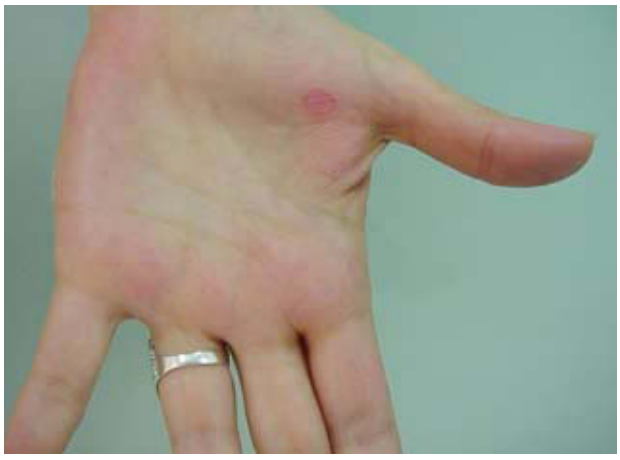

Figure 1.

Histopathology

Staining with hematoxylin-eosin revealed a hyperkeratotic palmar epidermis that underwent an abrupt transition to an area of hypokeratosis (Figure 2). This area was formed of a superficial layer of basophilic, vacuolated corneal cells, and a deep layer of eosinophilic corneal cells resting on an area of hypergranulosis with no koilocytosis or thickening of the stratum germinativum or spinosum. Dilated capillaries and a lymphocytic inflammatory infiltrate were observed in the superficial dermis.

Immunohistochemistry was positive for Ki67, CK16, and AE1/AE3.

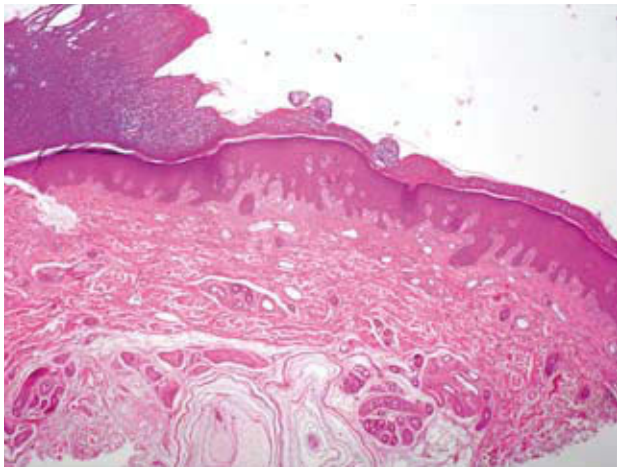

Figure 2. Hematoxylin-eosin, ×10.

What Was the Diagnosis?

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Diagnosis

Palmar hypokeratosis

Discussion

Palmar or plantar hypokeratosis is a rare condition first described by Pérez et al[1] in 2002, since which time a total of 34 cases have been published.[2-6]

Its etiology is unknown, though a number of hypotheses exist: Pérez[1] considered that it was a benign epidermal malformation of idiopathic origin; Resnik and Di Leonardo[3] suggested recurrent trauma as the cause; and, finally, Böer and Falk[4] associated it with papilloma virus type 4 infection.

Palmar or plantar hypokeratosis is most common in elderly women, usually developing on the thenar eminence of the hand. There is no preference for the right or left hand and, in the majority of cases, it presents as a single lesion. It is characterized by a depressed area of erythema of a few millimeters in diameter, clearly demarcated by a rolled, hyperkeratotic border, with normal perilesional skin. Growth is very slow and it is usually asymptomatic, although pruritus or soreness have been reported when the lesion comes into contact with external stimuli such as changes of temperature or irritant chemical products. Histopathological study is essential to confirm the diagnosis. However, dermatoscopy can help to point to an initial suspected diagnosis. The dermatoscopy image without oil immersion shows stepped desquamation at the border of the lesion. Oil immersion reveals homogeneous erythema with tiny white macules distributed regularly through the thickness of the skin, and which correspond to acrosyringia.[5]

The differential diagnosis of palmar or plantar hypokeratosis includes disseminated porokeratosis palmaris, plantaris et disseminata, Bowen disease, and a ruptured blister.[6] Porokeratosis palmaris, plantaris et disseminata is a rare variant that mainly affects children and is characterized by annular hyperkeratotic plaques with centrifugal growth, which develop initially on the palms of the hands and soles of the feet; histologically it presents a cornoid lamella. Bowen disease presents clinically as a well-defined, slow-growing, desquamative macule, and is characterized histologically by the presence of atypical cells that affect the whole thickness of the epidermis. A ruptured blister is a self-limiting lesion with a nonspecific histological pattern.

Although spontaneous resolution has been reported in a few cases of palmar or plantar hypokeratosis, the lesion is typically persistent, though malignant degeneration has not been reported in the long term.

A number of therapeutic options have been used to treat this condition, including topical retinoid preparations, calcipotriol, and potent corticosteroids. The lack of long-term efficacy of these treatments and the benign nature of the condition mean that it may be decided not to treat these patients.

Conflicts of Interest
The authors declare no conflicts of interest.

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