QUIZ SECTION

Thirty-year History of Palmar Eruptions: A Quiz

Kristian Ikenberg, Annette Pflugfelder, Gisela Metzler and Tilo Biedermann*

*Department of Dermatology, University Hospital Tuebingen, Liebermeister Strasse 25, DE-72076 Tuebingen, Germany. E-mail: *Tilo.Biedermann @med.uni-tuebingen.de*

A 50-year-old Caucasian man presented with a 30-year history of fluctuating skin disease on both palms. Previous diagnoses included hand eczema and contact dermatitis, and he was treated with different topical glucocorticosteroids without remarkable improvement. The patient noted episodes of pain or hypersensitivity and an aggravation following mechanical force, but no pruritus.The patient's family history and medical history were unremarkable. There were no abnormal laboratory results.

Clinical examination revealed disseminated red-brownish flat-topped micropapules on the palms, with remarkable accentuation at mechanically stressed sites, such as the thenar and the volar basis of the fingers (Fig. 1a). Dermatoscopy brought forward punctual haemorrhages. Neither the feet nor other skin sites were involved.

Histological examination revealed a dense, well-circumscribed, subepidermal infiltrate of inflammatory cells closely attached to the epidermis. Each of the discrete foci of well-circumscribed infiltrates occupied a few rete ridges, some of which appeared claw-like. The overlying epidermis showed focal parakeratosis, a remarkable extravasation of erythrocytes and hyalinization of capillaries (Fig. 1b and c). Immunohistochemistry identified T lymphocytes positive for CD3 (Fig. 1c) and histiocytes positive for CD68 (not shown).

What is your diagnosis? See next page for answer.

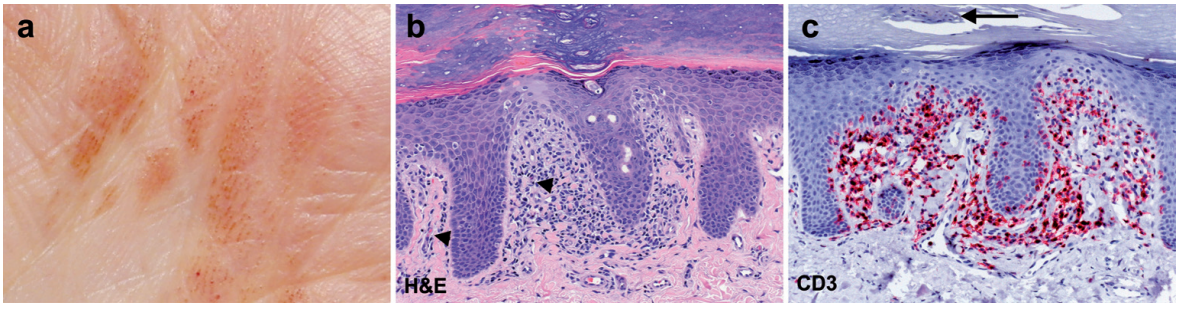

Fig. 1. (a) Disseminated red-brownish flat-topped micropapules on the palms. (b and c) Histology revealed discrete, well-circumscribed foci of inflammatory cells, containing T lymphocytes (positivity for CD3), extravasation of erythrocytes (*arrowhead*) and focal parakeratosis (*arrow*).
H&E: haematoxylin and eosin.

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ANSWERS TO QUIZ

Thirty-year History of Palmar Eruptions: Comment

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Diagnosis: Palmar purpuric lichen nitidus

Based on clinical presentation and histology, a diagnosis of palmar purpuric lichen nitidus (LN) was made. Due to reports of successful treatments of LN, topical therapy with tacrolimus 0.1% once a day was commenced (1). A moderate improvement in palmar LN, but no remission, was achieved following a 2-month period of continuous treatment. More extensive therapy with tacrolimus 0.1% under occlusion was incompatible with the patient's everyday life. Consequently, an alternating therapy with clobetasol propionate 0.5 mg/g and tacrolimus 0.1% ointment was started. Following this treatment, remission was achieved and no recurrence occurred after discontinuation of the medication.

LN is a rare, eruptive disorder of unknown aetiology with characteristic minute (1–2 mm), tiny skin-coloured papules with an even or dome-shaped surface, which was first described by Felix Pinkus in 1907 (2, 3). It mainly affects children and young adults, and sometimes elderly people, and is usually localized on the upper extremities, chest, abdomen and genitalia, but generalized forms are described (4). The typical histological findings include a well-circumscribed dermal infiltrate of lymphocytes, macrophages and occasionally giant cells in "claw-like" rete ridges attached to the epidermis, which occasionally shows parakeratosis (2).

The purpuric variant of LN is rare and has been described as a localized as well as a generalized variant, with only a few reported cases of palmar or plantar involvement (5, 6). The purpuric variant of LN presents with red-to-brownish micropapules due to underlying haemorrhages (5, 7). Substantial changes in the small blood vessels, such as hyalinization of the vessel walls, are thought to be responsible for dermal haemorrhages (5). According to the reports of Koebner's phenomenon in LN, our patient also reported an aggravation of the disease following mechanical force, with the most affected sites being the mechanically stressed palms (4).

Although originally regarded as a variant of lichen planus (LP), LN is now considered to be a distinct entity. However, LP is an important differential diagnosis to LN, but LP appears more dome-shaped and differs in the sites of predilection. Nevertheless, patients with LP may present with LN-like skin lesions (8). Histology is an important factor in making a diagnosis, as LN lacks the saw-toothed shape of the epidermal border typically seen in LP (2). Other than LP, the group of pigmented purpuric dermatosis (e.g. Schaumberg's disease) has to be taken into consideration as clinical differential diagnoses (9).

There is no evidence-based therapy for LN, but, for the generalized variant, narrow-band ultraviolet phototherapy and ciclosporin have been reported to be effective (7, 10). For the localized variant of LN, as in our patient, we successfully applied a combination of topical tacrolimus and clobetasol propionate.

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