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Letter

Bullous dermatitis artefacta histopathologically mimicking porphyria cutanea tarda

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To the Editor

Dermatitis artefacta (factitious skin disorder) is a psychodermatological disorder that poses a clinical and pathological challenge.[1] It can present as ulcers, excoriations, or blisters.[1,2] The bullous subtype is rare and can be induced by various techniques, such as heat, electric current, and common chemicals like spray deodorant.[2,3] This entity poses a challenge, as differentiating it from other blistering disorders can be difficult. However, histopathology can provide crucial clues to the diagnosis and etiology.[2] We describe a patient with histopathological findings that may mimic porphyria cutanea tarda but with characteristic changes seen in artefactual blistering disease induced by heat or electric current.

A 47-year-old right-handed man, a welder by occupation, was admitted to the emergency department with a 1-month history of painful blistering lesions on his upper limbs. He denied fever or other systemic symptoms. He reported a similar condition 2 years earlier that required inpatient treatment and resolved with systemic corticosteroids. The patient had previously consulted another dermatology department, where a biopsy was taken from a blister on his left forearm.

Physical examination revealed multiple tense blisters on the dorsum and palm of the left hand and forearm, equidistantly distributed, with no lesions on the right hand (**Figure 1A**). Multiple linear residual plaques and macules with sharp borders were located on the anterior chest, abdomen, and upper extremities, predominantly on the left side (**Figure 1B**), with sparing of the posterior body (**Figure 1C**).

Clinically, dermatitis artefacta was suspected given the linear and geometric distribution of lesions. The patient initially denied self-infliction, though he described profound sadness related to separation from his ex-wife 2 years earlier. Skin biopsy results showed a subepidermal blister without acantholytic cells, vertical elongation of keratinocytes, scalloped upper dermis protruding into the blister, telangiectatic vessels (some thick-walled), and minimal inflammatory infiltrate (**Figure 2**). These findings suggested thermally or electrically induced bullous dermatitis artefacta, consistent with the patient's occupation. Serum and urine porphyrin tests were negative. Direct immunofluorescence was not available. The patient had no history of alcoholism, hepatitis C, or hemochromatosis, helping to rule out porphyria cutanea tarda. Upon further questioning, he admitted to self-inflicting the blistering lesions with welding equipment. He was evaluated by psychiatry and prescribed oral sertraline and psychotherapy.

Bullous factitious dermatitis is rarely reported, with only a few case reports.[2-5] Its geometric clinical morphology suggests external induction of the lesions,[2,3] but proving artificial etiology and the mechanism of blister induction is difficult.[2] In this case, non-bullous lesions also supported the diagnosis: greater involvement of the left (non-dominant) half of the body suggested self-infliction by the right hand, and sparing of the posterior body was striking. Histopathology can provide essential clues, particularly vertical elongation of keratinocyte nuclei, previously described in thermal and electrical injury.[2-5]

Porphyria cutanea tarda may present with subepidermal blisters associated with mild mononuclear inflammatory infiltration. Polymorphonuclear neutrophils with leukocytoclasia have been described in acute erythropoietic protoporphyria lesions, and occasional red blood cell extravasation may occur.[6] Scallop-like dermal papillae are often present.[6] Linear segmented structures composed of type IV collagen and laminin have been described in the blister roof in porphyria cutanea tarda,[6] but were absent in this patient. Vertical elongation of keratinocyte nuclei has not been described in porphyria cutanea tarda, suggesting a histopathological clue for thermal damage in this self-inflicted case.

This case represents a clinical and histopathological diagnostic challenge. Vertical elongation of keratinocytes

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Figure 1. ***(A)*** *Multiple tense blisters on the dorsum of the left hand and forearm, equidistantly distributed, with no lesions on the right hand.* ***(B)*** *Multiple linear residual plaques and macules with sharp borders on the anterior chest, abdomen, and upper extremities, predominantly on the left.* ***(C)*** *No bullous lesions on the posterior body.*

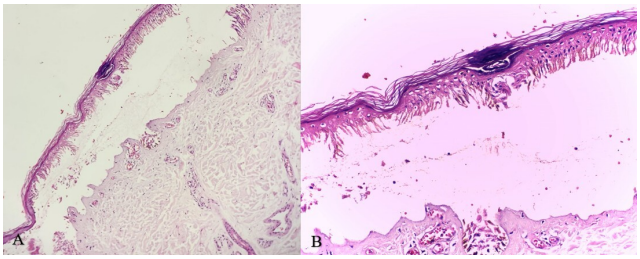

Figure 2. ***(A)*** *Subepidermal blister without acantholytic cells, vertical elongation of keratinocytes, scalloped upper dermis protruding into the blister, telangiectatic vessels (some thick-walled), and minimal inflammatory infiltrate (hematoxylin-eosin, original magnification ×10).* ***(B)*** *Close-up showing vertical elongation of keratinocytes (hematoxylin-eosin, original magnification ×20).*

may be a key sign in differentiating a subepidermal blister with paucicellularity and scalloped superficial dermis, which may histologically mimic porphyria cutanea tarda.

Potential conflicts of interest

The authors declare no conflicts of interest.

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