Anti-p200 pemphigoid mimicking erythema multiforme

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INTRODUCTION

Anti-p200 pemphigoid is a rare subepidermal autoimmune blistering disease characterized by autoantibodies against a 200-kDa protein localized within the lower lamina lucida in the basement membrane zone.[1] The clinical presentation of anti-p200 most often resembles bullous pemphigoid, mucous membrane pemphigoid, or an inflammatory variant of epidermolysis bullosa acquisita.[2] Herein, we describe an atypical presentation of anti-p200 pemphigoid, with numerous targetoid lesions present on the extremities, with erythema multiforme (EM)-like clinical features.

Abbreviations used:

EM: erythema multiforme
Ig: immunoglobulin

CASE REPORT

A 48-year-old woman, with only past medical history of breast augmentation, came to our department with a 1-month history of pruritus and erythematous papules with tense blisters. On physical examination, there were well-defined erythematous plaques and a few tense blisters on her face, trunk, and the upper and lower aspects of her arms (Figs 1, *A* and *B*). Numerous targetoid lesions with dusky centers surrounded by a white bullous ring and a peripheral erythematous ring were present on her dorsal hand and palm (Figs 2, *A* and *B*). All of the bullea were found on normal skin. Her oral mucosa showed several erythematous lesions with erosion. No drug-related etiology was identified. The complete blood count was normal. Serum herpes simplex virus 1 and 2 immunoglobulin (Ig) G was positive, whereas IgM was negative. The clinical presentation suggested bullous EM, and the patient was empirically treated with 30 mg daily of oral prednisolone and valacyclovir. Histopathologic analysis of targetoid lesions on her hand revealed subepidermal blisters containing eosinophils and neutrophils (Fig 3, *A*). Direct immunofluorescence revealed linear IgG and C3 deposition at the dermoepidermal junction (Fig 3, *B*). Bacterial cultures were negative. Herpes virus culture was negative. No anti-*Mycoplasma pneumoniae* antibodies were detected. Anti-BPAG 1 and 2, anti-desmoglein 1 and 3, and anti-collagen VII antibodies measured by enzyme-linked immunosorbent assay were negative. Indirect immunofluorescence using 1 mol/L NaCl-split skin demonstrated linear deposition of IgG on the dermal side. Immunoblot analysis demonstrated reactivity to the 200-kDa protein using human dermal extract (Fig 3, *C*). Based on these findings, we established the diagnosis of anti-p200 pemphigoid. The lesions were treated with 0.05% betamethasone dipropionate cream, and oral doxycycline was started. Skin lesions healed completely within 2 weeks after the onset of treatment.

DISCUSSION

Our case illustrates the heterogeneous clinical profile of anti-p200 pemphigoid. This entity was first described in 1996 by Zillikens et al,[3] as a generalized eruption of tense blisters. On the back of the hands and lower arms, lesions were described as targetoid and were reminiscent of EM, but there

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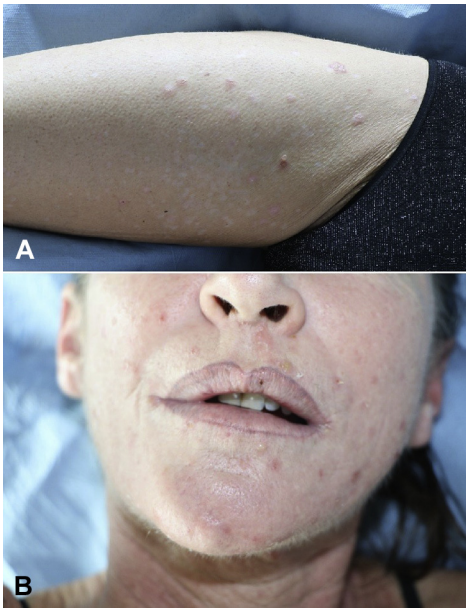

Fig 1. A, Tense blisters with erythematous, squamous, and crust lesions on the thighs. **B,** Eroded areas and tense blisters on the face.

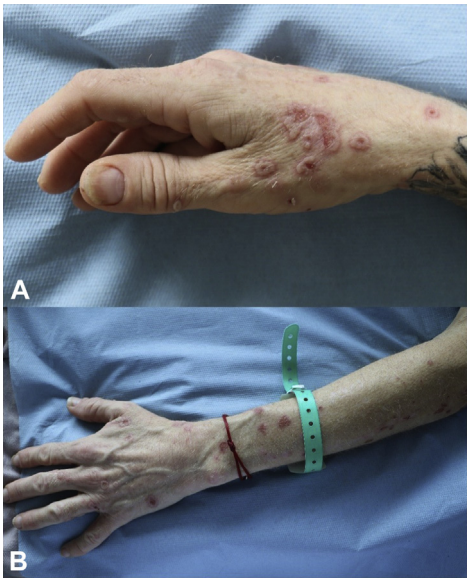

Fig 2. A, Tense blisters with dark centers surrounding erythematous lesion and targetoid-like lesions on the dorsum of the right hand of a 48-year-old woman with anti-p200 pemphigoid. **B,** Eroded areas and tense blisters on the right forearm and the dorsum of the hand.

were no photos to illustrate it.[3] Since then, 113 patients have been reported in the medical literature with many different clinical presentations, and none were erythema multiform-like.[4] A heterogeneous clinical profile that mimicked bullous pemphigoid was present in the majority of patients, accompanied by a high prevalence of palmoplantar lesions resembling dyshidrosiform pemphigoid and mucosal involvement.[4] The mean age at onset was 66.6 years, and the majority of the patients were men, often suffering from pre-existing psoriasis.[5] Several reports show that the clinical diagnosis of subepidermal autoimmune bullous disease can be challenging, when there are EM-like lesions; especially, if the lesions are induced by drugs.[6] Park et al[7] described a drug-induced bullous pemphigoid with EM-like clinical features. To our knowledge, this is the first illustrated case of anti-p200 pemphigoid mimicking EM. EM is caused by a cell-mediated immune response, and 90% of the cases are associated with infection.[6] Positive immunofluorescence for IgG, IgM, IgA, and C3 is the cornerstone test for the diagnosis of subepidermal autoimmune blistering disease; however, positive immunofluorescence for C3 and IgM has been observed in EM.[8] No standard therapy for anti-p200 pemphigoid has been defined. Systemic corticosteroids in conjunction with adjuvant immunomodulatory agents are the most frequent course of treatment. Dapsone was the leading adjuvant agent used.[9] In conclusion, the present case appearing with EM-like lesions confirms the heterogeneous clinical profile of anti-p200 pemphigoid. Dermatologists should be familiar with this for a timely diagnosis.

Conflicts of interest

None disclosed.

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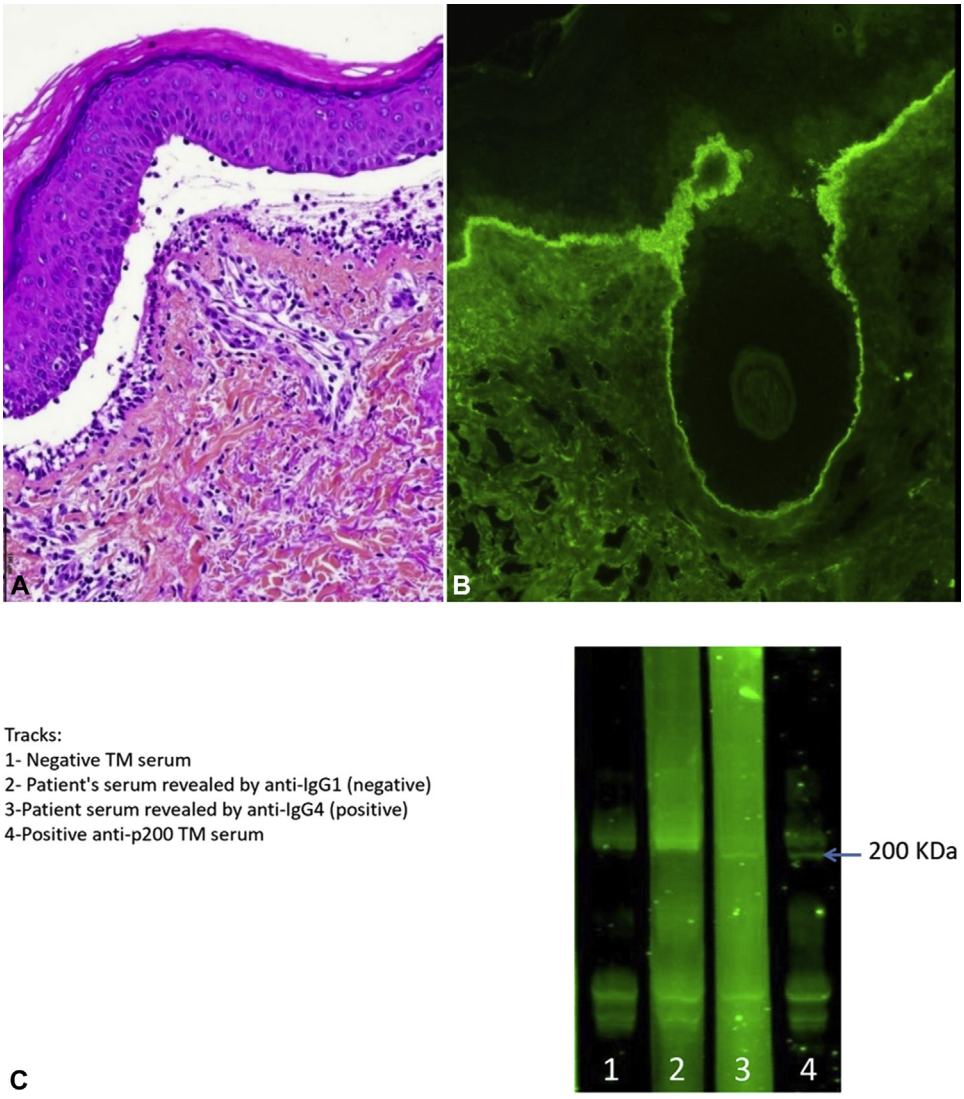

Fig 3. A, Skin biopsy specimen from a tense blister with surrounding erythema revealed subepidermal detachment with mixed dermal inflammatory infiltrate, eosinophils, neutrophils, and fibrin. **B,** Direct immunofluorescence revealed in vivo-bound IgG and C3 along the basement membrane zone in perilesional skin. **C,** Immunoblotting with dermal extracts confirmed that the patient's IgG autoantibodies reacted with a 200-kDa protein.

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