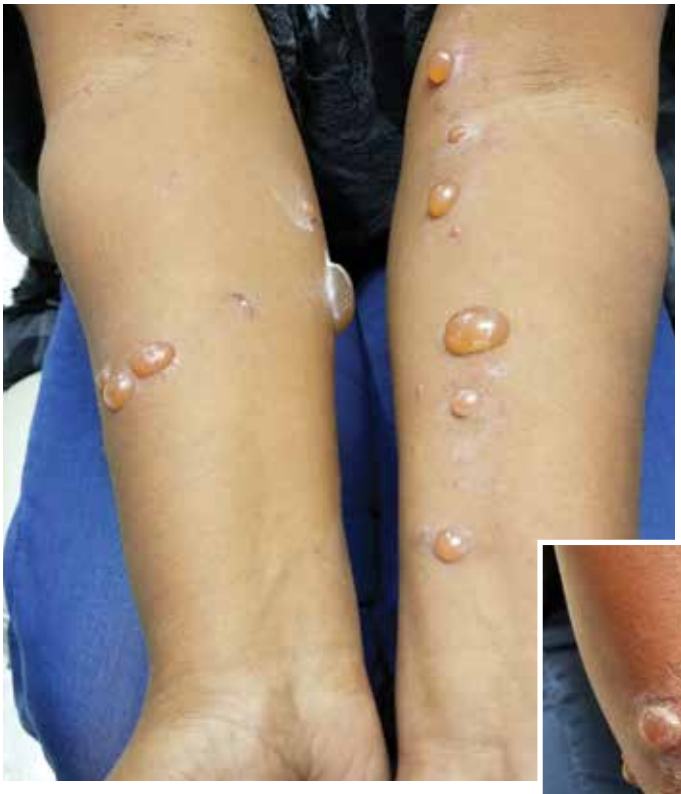
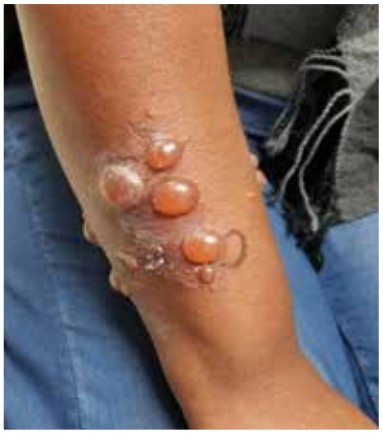
Bullae for You, My Dear

A 42-year-old African-American woman presents with highly symptomatic blisters on her arms. She has no explanation for their recent appearance.

An initial visit to urgent care netted her a diagnosis of probable poison ivy and a prescription for topical steroid cream (triamcinolone 0.1%) and calamine lotion. Neither was of any help. She followed up with her primary care provider, who expedited referral to dermatology.

The patient denies any recent history of exposure to the great outdoors. She is not ill; she has neither fever nor malaise—just considerable discomfort from the itching. She denies any oral lesions or hoarseness. No one else in her household is similarly affected.





Examination reveals a dozen fluid-filled bullae, measuring 8 mm to 3 cm, scattered across both forearms (predominantly on the flexural surfaces). The lesions are distinct and discrete but randomly configured. The fluid is clear and yellow. There is no tenderness or erythema. Testing for Nikolsky sign is negative (ie, the lesions cannot be extended or ruptured with digital pressure).

Punch biopsy is performed on both perilesional and uninvolved skin; some samples are submitted in formalin-based fixative for default hematoxylin and eosin staining and others in Michel's medium (a simple salt solution that neither kills organisms nor alters cell architecture) for direct immunofluorescent studies. The report shows IgG deposited at the dermoepidermal junction.

The most likely diagnosis is

a) Contact dermatitis
b) Hypersensitivity reaction to bug bite
c) Pemphigus vulgaris
d) Bullous pemphigoid

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ANSWER

The correct answer is bullous pemphigoid (choice "d").

Biopsy would have shown clear evidence of either contact dermatitis (choice "a") or hypersensitivity reaction to bug bite (choice "b").

The same is true of pemphigus vulgaris (PV; choice "c"). However, this diagnosis was already unlikely, given the results of Nikolsky testing—PV manifests with thin-walled, fragile bullae that are easily extended by digital pressure.

DISCUSSION

There are 7 million to 14 million cases of bullous pemphigoid (BP) per year. BP represents the effects of an autoimmune reaction;

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There's No Patellin' What Happened

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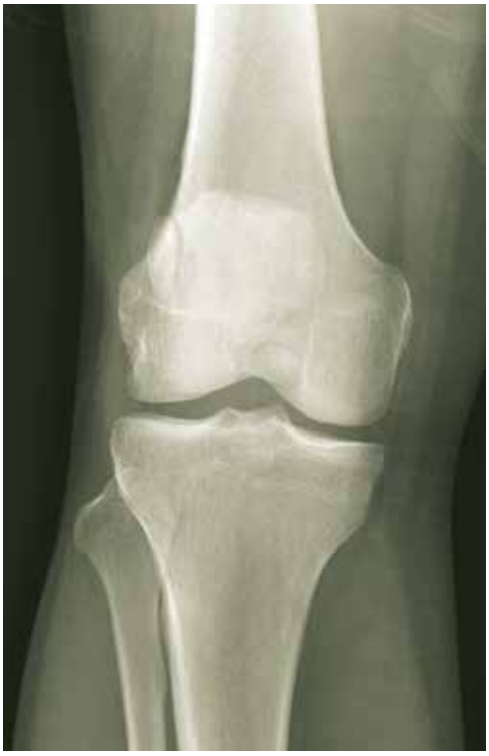
A 30-year-old man is transported by ambulance to your emergency department from the scene of a motor vehicle collision. He was a restrained driver who lost control of his vehicle and hit the back of a tractor-trailer. His airbag deployed, and he thinks he had a brief loss of consciousness. He complains of pain in his neck, right-side chest wall, and right knee.

He denies any significant medical history and takes no medications regularly. He reports smoking a half-pack of cigarettes per day and consuming alcohol socially; he denies drinking this evening.

Primary survey shows a male in no obvious distress who is currently awake, alert, and oriented. His Glasgow Coma Scale score is 15. Primary exam is stable except for some neck pain and right-side rib pain.

During secondary survey, examination of his right knee shows a superficial laceration with controlled bleeding. No significant swelling is present. The patient does have decreased range of motion secondary to a moderate amount of pain. Distal pulses are present, and there is no neurovascular compromise.



You obtain a portable radiograph of the knee (shown). What is your impression?

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anti-hemidesmosome antibodies attack tissue, causing the dermis to separate from the epidermis and creating a space that the body quickly fills with a serous transudative clear fluid. This results in the formation of tense, round to oval bullae that can neither be extended nor easily ruptured by digital pressure.

BP is caused by IgG, which targets dystonin (also known as *BP antigen 1*) and/or type XVII collagen (*BP antigen 2*). In most cases, no trigger is identified, though several medication classes (eg, NSAIDS, certain antibiotics) have been implicated.

This particular case is unusual, not only because of the patient's relative youth (most cases occur in those older than 70), but also because BP tends to manifest on the legs before spreading elsewhere.

TREATMENT

BP can be difficult to treat, although topical steroids often suffice for mild cases. Given the severity of this patient's symptoms, she was treated with triamcinolone (60 mg IM) and a one-month taper of prednisone (starting at 60 mg/d).

When glucocorticoids are contraindicated, other drugs can be used. These include oral antibiotics (eg, minocycline, given for anti-inflammatory effect) or—for severe cases—methotrexate, azathioprine, or mycophenolate mofetil. **CR**