Aneri Patel, BS
Department of Dermatology, University of California, Davis, Sacramento, CA

Ilana D. Breen, MD
Department of Dermatology, University of California, Davis, Sacramento, CA

Joshua M. Schulman, MD
UC Davis School of Medicine, Davis, CA

Apra Sood, MD
Department of Dermatology, University of California, Davis, Sacramento, CA; Department of Dermatology, VA Northern California Health Care, Mather, CA

Fixed drug eruption due to ibuprofen

Figure 1. An 8-cm violaceous plaque with surrounding mild erythema in the patient's left inguinal fold.

A 76-year-old man with a history of lumbar radiculopathy and chronic low back pain presented with a 2-month history of a lesion on the left groin that caused a burning sensation. He had been taking 600 to 1,200 mg ibuprofen daily for back pain for more than 1 year. His other medications included gabapentin 400 mg for sleep and a daily multivitamin.

Physical examination revealed a well-demarcated violaceous 8-cm plaque with perilesional erythema on the left inguinal fold (**Figure 1**). A 4-mm punch biopsy of the skin revealed a vacuolar interface dermatitis with numerous eosinophils and melanophages. The clinical and histopathologic features combined with the patient's medication history supported a diagnosis of fixed drug eruption due to ibuprofen.

The ibuprofen was discontinued and replaced with acetaminophen. The patient was prescribed a medium-strength topical steroid for symptomatic management. The skin lesion resolved over 3 weeks and has not recurred.

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FIXED DRUG ERUPTION

The well-demarcated violaceous plaque on the groin in this patient raised suspicion for a variety of lesions, including an insect bite, bullous pemphigoid, bullous fixed drug eruption, erythema multiforme, leukocytoclastic vasculitis, lichen planus, large plaque parapsoriasis, and sarcoidosis (**Table 1**).[1,2] Of these diagnoses, the rapid onset of a solitary plaque with symptoms of burning following a recent medication exposure was most suggestive of fixed drug eruption, a relatively uncommon cutaneous reaction to medication.[3]

Fixed drug eruption lesions usually present as 1 or more circular patches with a violaceous hue on any part of the trunk or extremities. Mucosal and genital

TABLE 1
Differential diagnosis of fixed drug eruption and differentiating features

Causes	Differentiating features
Insect bite	Erythematous papule with surrounding erythema or pruritic urticarial lesion
Bullous pemphigoid	Large fluid-filled blisters on flexor surfaces
Bullous fixed drug eruption	Well-demarcated solitary erythematous or violaceous circular patches
Erythema multiforme	Recurrent papular, bullous, necrotic lesions, often with central clearing
Leukocytoclastic vasculitis	Erythematous macules with palpable purpura
Lichen planus	Pruritic violaceous papules and plaques on wrists, lower back, ankles
Large plaque parapsoriasis	Oval erythematous or hyperpigmented macules and patches with fine scales and atrophy
Fixed drug eruption	Annular oval red or violaceus patch, often with pruritus; well defined and can be blistering or erosive Clinical presentation may vary based on subtype, including mucosal, nonpigmenting, targetoid, and bullous variants Presentation may be localized or generalized
Sarcoidosis	Painless, firm, oval nodules that are flesh-colored or violaceous

Based on information from reference 2.

lesions may also occur.[3] This reaction typically recurs in the same site on reexposure to the causative medication. Although the lesions are mostly asymptomatic, there may be mild pruritus, burning, or stinging.

A history of recent medication exposures, including over-the-counter agents, is a clue to the diagnosis.[1,3] Fixed drug eruptions are associated with many drugs, especially antibiotics (eg, trimethoprim-sulfamethoxazole, tetracyclines, penicillin), nonsteroidal anti-inflammatory drugs such as ibuprofen or naproxen, antifungals, antihistamines, and acetaminophen; less common associations include carbamazepine and allopurinol.[1,3,4,5]

Workup for a suspected fixed drug eruption, including the need for laboratory evaluation and biopsy, varies based on the clinical examination and history. Because the diagnosis of fixed drug eruption is largely clinical, primary care clinicians should maintain a low threshold for referral to dermatology if there is diagnostic uncertainty or lack of supportive history.[2]

Management includes discontinuation of the drug, and the prognosis is good, with the lesion(s) usually resolving without treatment. For symptomatic relief, medium-to-high potency topical corticosteroids can be prescribed.[2] A short course of systemic corticosteroids may be needed for multiple lesions.[1]

Because these lesions are uncommon, they are often overlooked or misdiagnosed. Early diagnosis can prevent long-term complications such as rare generalized bullous lesions or postinflammatory hyperpigmentation.

DISCLOSURES

The authors report no relevant financial relationships which, in the context of their contributions, could be perceived as a potential conflict of interest.

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Address: *Apra Sood, MD, Department of Dermatology, VA Northern California Health Care, 10535 Hospital Way, Mather, CA 95655; apra.sood@va.gov*