A CASE OF MELOXICAM INDUCED LEUKOCYTOCLASTIC VASCULITIS

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Introduction

Meloxicam is a long-acting enolic NSAID commonly used as maintenance treatment for diseases such as rheumatoid arthritis (RA). It has a favorable side-effect profile, in part because of its once-daily dosing and mild COX-2 inhibitory preference, and because of its ability to decrease inflammation without immunosuppression. Vasculitis is a rare adverse effect of meloxicam, occurring only as anecdotal events. We present a case of leukocytoclastic vasculitis most probably secondary to meloxicam use, which has not, to our knowledge, previously been described.

Clinical Case

A 70-year-old Korean female with pertinent history of uterine cancer in remission and recently diagnosed RA on meloxicam for over a month, developed hemorrhagic bullae of different sizes, papules, and petechiae on bilateral lower extremities. The patient was started on leflunomide for symptomatic relief of suspected RA related vasculitis. However, the skin lesions progressed both in severity and in total body surface area. By the time the patient presented to the hospital, hemorrhagic crusting lesions on bilateral elbows and foul-smelling hemorrhagic purulent ulcers of bilateral feet were appreciated. Biopsy of the lesions showed a superficial and mid-dermal perivascular and interstitial mixed inflammatory infiltrate containing lymphocytes, histiocytes, eosinophils, and neutrophils, along with nuclear dust and fibrin within vessel walls and numerous extravasated erythrocytes. Subsequently, a diagnosis of pustular leukocytoclastic vasculitis was made and meloxicam was identified as the likely responsible agent. The patient was started on high dose steroids and broad-spectrum antibiotics with debridement of infected bullae and wound care. The patient exhibited significant clinical improvement with rapid healing of skin lesions.

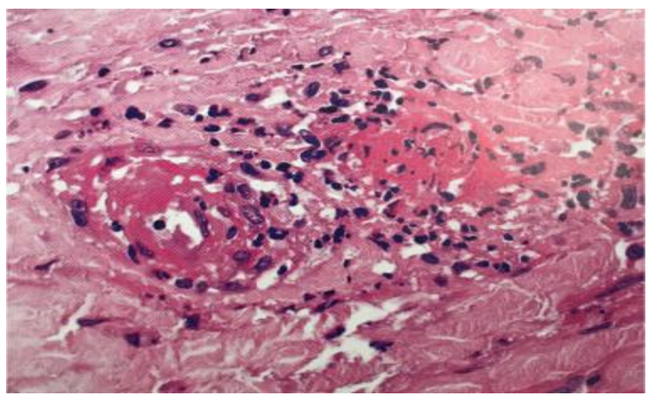

Figure 1: H&E stained skin lesion showing mid-dermal, perivascular and interstitial mixed inflammatory cell infiltrate containing lymphocytes, histiocytes, eosinophils and many neutrophils. Nuclear dust and fibrin within vessel walls are also present. (400x magnification)

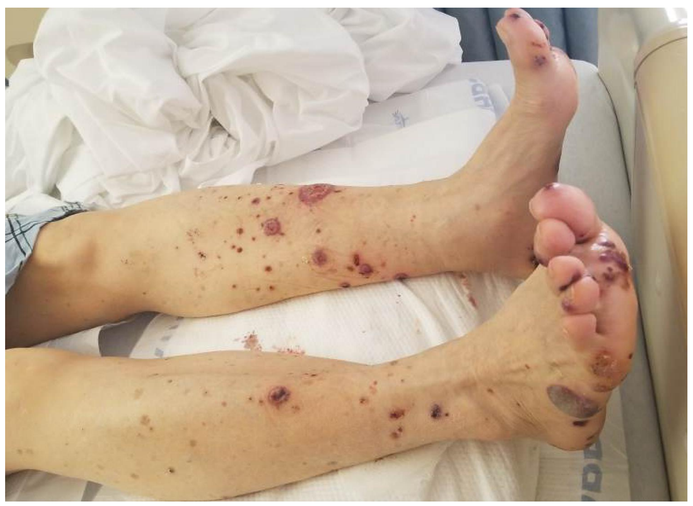

Figure 2: Bilateral lower extremity showing hemorrhagic bullae of different sizes, papules, and petechiae.

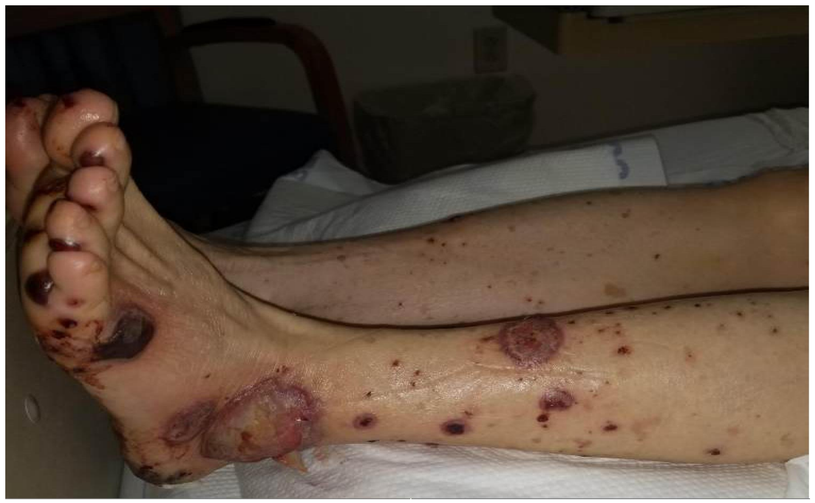

Figure 3: Hemorrhagic crusting and foul-smelling purulent ulcers of bilateral feet, with infected bullae on the left ankle .

Discussion

Meloxicam is frequently used and well tolerated in the treatment of RA. However, the sudden appearance of vasculitis in the context of a patient with an autoimmune disease treated with a newly introduced drug presents a diagnostic dilemma. Rheumatoid vasculitis is an uncommon but potentially catastrophic complication of RA and typically affects both small and large vessels. Drug-induced leukocytoclastic vasculitis is a small-vessel vasculitis that most commonly manifests with palpable purpuric lesions. This can occur in hours to weeks following exposure to the offending drug and are most commonly developed on gravity-dependent areas such as the lower extremities and buttocks - all of which occurred in this case. Distinguishing drug-related vasculitis from other etiologies can be difficult and requires special attention to the clinical evolution of skin lesions with respect to the chronologic presence and absence of suspected etiologic agents. Given the correlation of meloxicam exposure with the clinical and pathologic manifestation of lesions, meloxicam was the most likely etiologic origin of the skin lesions. While the risk of cutaneous adverse effects with meloxicam is minimal, this case suggests that small-vessel vasculitis should be recognized as a rare and serious adverse effect with this drug.

References:

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