

Koebner Phenomenon in Dermatomyositis after Subcutaneous Methotrexate Injections

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Koebner phenomenon has rarely been reported in patients with dermatomyositis, in one case from steam burn¹ and in another, a possible scratch².

A 71-year-old woman sought medical advice for 3 erythematous patches on her thighs that had developed after subcutaneous methotrexate injections (Figures 1A and 1B). Six months before, she had presented typical lesions of dermatomyositis including heliotrope rash, eyelid erythema, and Gottron papules but no muscle manifestations. A skin biopsy from the back had shown interface dermatitis. A diagnosis of paraneoplastic amyopathic dermatomyositis associated with metastatic ovarian cancer had been established. The cancer had been previously treated by surgery and chemotherapy and was considered in remission.

Treatment with topical corticosteroid and hydroxychloroquine was ineffective. Therefore, methotrexate (20 mg per week) was given subcutaneously on the thighs. Two days

after each injection, the patient complained of an erythematous lesion at the injection site that was still present when the patient eventually came to consult. In the same time, the initial dermatomyositis lesions had improved.

A skin biopsy from the last injection site revealed an interface dermatitis (Figure 1C). The development of clinical lesions with consistent histological pattern of dermatomyositis following trauma in a previously unaffected area is suggestive of Koebner phenomenon. This is an isomorphic response observed in many dermatoses such as psoriasis.

REFERENCES

1. Ng PP, Gan SL. Koebner phenomenon in dermatomyositis. *Dermatology* 2006;213:249–50.
2. Tidwell WJ, Callen JP. Koebner phenomenon in juvenile dermatomyositis. *J Rheumatol* 2018;45:437.



Figure 1. A, B. Erythematous patches on thighs that had developed after subcutaneous methotrexate injections. C. Interface dermatitis revealed by skin biopsy from the last injection site.