Psoriasis Onset with Tocilizumab Treatment for Rheumatoid Arthritis

To the Editor:

Tocilizumab (TCZ) is a humanized monoclonal antibody directed against the interleukin 6 (IL-6) receptor, approved in the treatment of rheumatoid arthritis (RA), with potential use in other inflammatory diseases¹. We describe a case of psoriasis onset during TCZ treatment in a patient with RA.

A white woman, born in 1955, for 20 years had erosive RA, negative for anticitrullinated protein antibodies. Her condition did not respond to several disease-modifying antirheumatic drugs (hydroxychloroquine, methotrexate, leflunomide) or to 2 tumor necrosis factor- α (TNF- α) blockers (etanercept, adalimumab). TCZ was then tried: 8 mg/kg/infusion in monotherapy, and later with 5 mg/day prednisone. After the third infusion (9 weeks of exposure to TCZ), she developed for the first time a psoriasis eruption on the left leg (Figure 1) and left elbow. The diagnosis was confirmed by a dermatologist and treated topically, without discontinuing TCZ. At the onset of psoriasis lesions, the RA responded to the treatment (28-joint Disease Activity Score 5.12 to 3.49; erythrocyte sedimentation rate 15 mm/h; C-reactive protein 1.5 mg/l).

This case may illustrate a new kind of unexpected event in a patient whose arthritis is controlled by TCZ. Similar cases have been reported², with exacerbation of preexisting psoriasis within 2 weeks after the first infusion of TCZ. Ogata, *et al*³ reported 2 cases of psoriatic arthritis treated with TCZ over 6 months without improvement in arthritis and skin lesions. Conversely, Brulhart, *et al*⁴ described a complete resolution of skin psoriasis in a patient treated with TCZ for severe ankylosing spondylitis associated with Crohn's disease.

Figure 1. Erythematous squamous lesions of the leg.

Increased production of IL-6 and upregulation of transcription factor STAT3 induced by IL-6 have been shown in psoriasis⁵, and plasma IL-6 levels seem to reflect psoriasis activity and treatment response⁶. Under these circumstances, onset or exacerbation of psoriasis is unexpected.

This kind of new onset or reactivation of psoriasis under biologic therapy for rheumatologic indications has been reported with TNF blockers⁷, rituximab⁸, and abatacept⁹.

In the few cases reported, psoriasis with TCZ is mild and may be controlled with topical treatment, with continuation of IL-6 blockade if effective on joint and general disease symptoms.

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