Treatment of anti-TNF-related paradoxical palmoplantar psoriasis in Behcet’s disease with azathioprine

Sirs,

Anti-TNF agents, especially infliximab (IFX), adalimumab (ADA) and etanercept are used in the treatment of aggressive manifestations of Behcet’s disease (BD). However, multiple adverse effects including psoriasis, cytopenia, infection, and demyelinating disorders may be observed after the initiation of anti-TNF treatment. Sometimes these adverse effects result in discontinuation or switching of therapy. Herein, we describe a patient with BD who developed palmoplantar pustular psoriasis (PPP) after initiation of ADA and treated with azathioprine (AZA) without discontinuation of ADA.

A 34-year-old male patient with a diagnosis of BD admitted to our outpatient clinic with skin lesions. He had had a diagnosis of BD with recurrent oral aphthous and genital ulcers, positive pathergy test and bilateral posterior uveitis according to the International Study Group Criteria for Behcet’s disease since 2013 and was on AZA and methylprednisolone (MP) treatment. Recurrence of posterior uveitis was observed with AZA and MP and then treatment was switched to Interferon alfa (IFN alfa). IFN alfa was discontinued due to fever and mood changes like adverse effects. Then AZA and cyclosporine combination was prescribed. During follow-up of patient bilateral sensorineural hearing loss was observed. The patient was treated with intravenous pulse methylprednisolone 1000 mg for three consecutive days and ADA 40 mg every two weeks. An improvement in hearing loss was observed. At the 6th week of ADA treatment patient admitted to our outpatient clinic with skin lesions. On physical examination, papulopustular lesions in the palms and soles were observed (Fig. 1. A). ESR and CRP levels were 18 (N:0-20) mm/h and 3 (N:0-5) mg/L, respectively. He was consulted to the dermatology department and a punch biopsy was performed. The pathology of skin lesions was consistent with palmoplantar pustular psoriasis. The pathological findings; there is increased neutrophil and neutrophilic microabscess in the epidermis, parakeratosis on the epidermal layer. Also, perivascular lymphocyte infiltration, tortuous capillary,suprapapillary thinning and dermal edema were detected. He had no history of smoking and a recent infection. Topical steroid, calcipotriene and methotrexate 15 mg/week were added to ADA by dermatology, the respective. No improvement was observed in psoriatic lesions and then ADA was discontinued. With the cessation of ADA, worsening in hearing loss was observed. So, ADA was again prescribed to patient and AZA was added to ADA treatment. At the 6th week of treatment with AZA and ADA combination an improvement both in hearing loss and PPP was observed (Fig. 1. B, C). Then we continued AZA treatment without cessation of ADA. In literature, there are a few case reports of patients with BD who developed PPP after the initiation of IFX (1-3). In these case reports, IFX was discontinued to treat PPP. This was the first case of BD who developed PPP with adalimumab and treated with AZA. Although anti-TNF drugs are used in the treatment of psoriasis, psoriasis due to anti-TNF drugs also has been observed as a paradoxical effect. The definite mechanism of this paradoxical effect is unknown. Overproduction of IFN-alfa increased infiltration of autoreactive T lymphocytes to the skin and increased keratinocyte proliferation are proposed mechanisms in the pathogenesis of anti-TNF related PPP (4). Azathioprine is a steroid-sparing, purine antagonist which has an important role in inducing apoptosis of lamina propria T lymphocytes and monocyes which contribute to pustular psoriasis development (5). By these mechanisms, concomitant use of AZA may decrease the development of anti-TNF therapy related PPP (6).

In conclusion, AZA can be used in patients who developed anti-TNF agents related to PPP, without interruption of anti-TNF treatment which is generally mandatory in organ involvement of BD.

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References