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**Authors:**

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**Infliximab-induced psoriasis in an ulcerative colitis patient successfully treated with guselkumab**

Cong Dai, Yu-Hong Huang

First Affiliated Hospital. China Medical University. Shenyang, China

**Correspondence:** Cong Dai

e-mail: congdaicmu@126.com

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*Dear Editor,*

Ulcerative colitis (UC) is a chronic inflammatory disorder of the gastrointestinal tract. Tumor necrosis factor (TNF) inhibitors such as infliximab (IFX) are used to treat UC. But TNF inhibitors can induce psoriasis, which was characterized by interleukin (IL) 17/IL-22 expressing Th17 cells and IFN- $\gamma$  expressing Th1 cells. Increased expression of Th17 cells correlated with more severe skin lesions and a need for ustekinumab (UST) therapy (1). UST is a monoclonal antibody that binds to the p40 subunit of IL-12 and IL-23. It has shown remarkable efficacy in psoriasis and UC (2). Guselkumab, a subcutaneously administered fully human IgG1 monoclonal antibody that selectively inhibits the p19 subunit of IL-23, is approved for the treatment of patients with moderate-to-severe plaque psoriasis (3). It was shown to be efficacious in patients with prior failure of other biologics such as UST and was also observed in the treatment of psoriasis located in difficult-to-treat body regions including the scalp, palms, soles and fingernails. We report a case of the successful use of guselkumab to treat an UC patient with IFX-induced psoriasis that was refractory to UST therapy.

## Case report

A 38-year-old male with a 14-year history of UC presented with a rash on his palms, soles and scalp for two months (Fig. 1A-C). He had tried over the counter topical corticosteroids without improvement. He was diagnosed with UC at the age of 24, when he presented with abdominal pain and hematochezia. He was initially treated with mesalazine (4 g/day) for three months, but the symptoms did not improve. He then switched to IFX, with good control of his gastrointestinal symptoms, normalization of his labs and mucosal healing on colonoscopies. He was well for 36 months prior to the development of any rashes. Subsequent laboratory findings were as follows: white blood cells (WBC)  $11.82 \times 10^9/l$ , hemoglobin (Hb) 128 g/l, C-reactive protein (CRP) 14.1 mg/l and albumin (ALB) 42.9 g/l. Colonoscopy showed complete mucosal healing (Fig. 1D-F). The patient received an induction dose of UST 260 mg by intravenous drip and then transitioned to a maintenance dose of UST 90 mg subcutaneously every eight weeks. However, after five treatments with UST, the patient's skin disease had worsened. He was then switched to guselkumab 100 mg every four weeks. After four treatments with guselkumab, the psoriatic plaques had completely resolved (Fig. 1G-I). Eight months later, the patient continued to do well. His UC remained asymptomatic with complete mucosal healing.

## References

1. Tillack, C, Ehmann LM, Friedrich M, et al. Anti-TNF antibody-induced psoriasiform skin lesions in patients with inflammatory bowel disease are characterised by interferon-gamma-expressing Th1 cells and IL-17A/IL-22-expressing Th17 cells and respond to anti-IL-12/IL-23 antibody treatment. *Gut* 2014;63(4):567-77. DOI: 10.1136/gutjnl-2012-302853
2. Kolios AGA, Biedermann L, Weber A, et al. Paradoxical ulcerative colitis during adalimumab treatment of psoriasis resolved by switch to ustekinumab. *Br J Dermatol* 2018;178(2):551-5. DOI: 10.1111/bjd.15631
3. Chiricozzi A, Costanzo A, Fagnoli MC, et al. Guselkumab: an anti-IL-23 antibody for the treatment of moderate-to-severe plaque psoriasis. *Eur J Dermatol*

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Fig. 1. A-C. Patient with psoriatic plaques on the palms, soles and scalp. D-F. Colonoscopy photos showing completely normal mucosa in the entire colon. G-I. After treatment with guselkumab, the psoriatic plaques had completely resolved.