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CORRESPONDENCE

A successful switch from guselkumab to tildrakizumab during the treatment of a patient with psoriasis vulgaris

There are many treatment options for psoriasis vulgaris (PSV); in terms of biological agents, more than 10 drugs are available in Japan, including tumor necrosis factor (TNF)-α inhibitors, interleukin (IL)-17 inhibitors, IL-12/23 p40 inhibitors, and IL-23 p19 inhibitors. If one of the above drug classes does not markedly improve psoriatic skin lesions, we usually switch to a drug of another class. However, we also perform "in-class" switching, for example, from one IL-17A inhibitor to another.[1] As IL-23 p19 inhibitors are relatively novel, evidence of in-class switching efficacy is limited. We report the first successful switch from guselkumab to tildrakizumab in a patient with psoriasis.

A 35-year-old man with a 10-year history of PSV presented with scaly and erythematous plaques over his entire body. His body mass index was 30 kg/m². The skin lesions were refractory to topical corticosteroids, immunosuppressants, apremilast, and ustekinumab. As he was reluctant to use an autoinjector, we prescribed guselkumab (100 mg every 8 weeks); this improved his Psoriasis Area and Severity Index score from 11.3 to 2.4. However, only scalp and genital lesions remained. Two years after starting guselkumab, the patient's Dermatology Life Quality Index (DLQI) score was 6, mainly because of genital lesions. Also, he could not afford to pay for treatment every 8 weeks. Hence, we switched to tildrakizumab (100 mg every 12 weeks after the initial

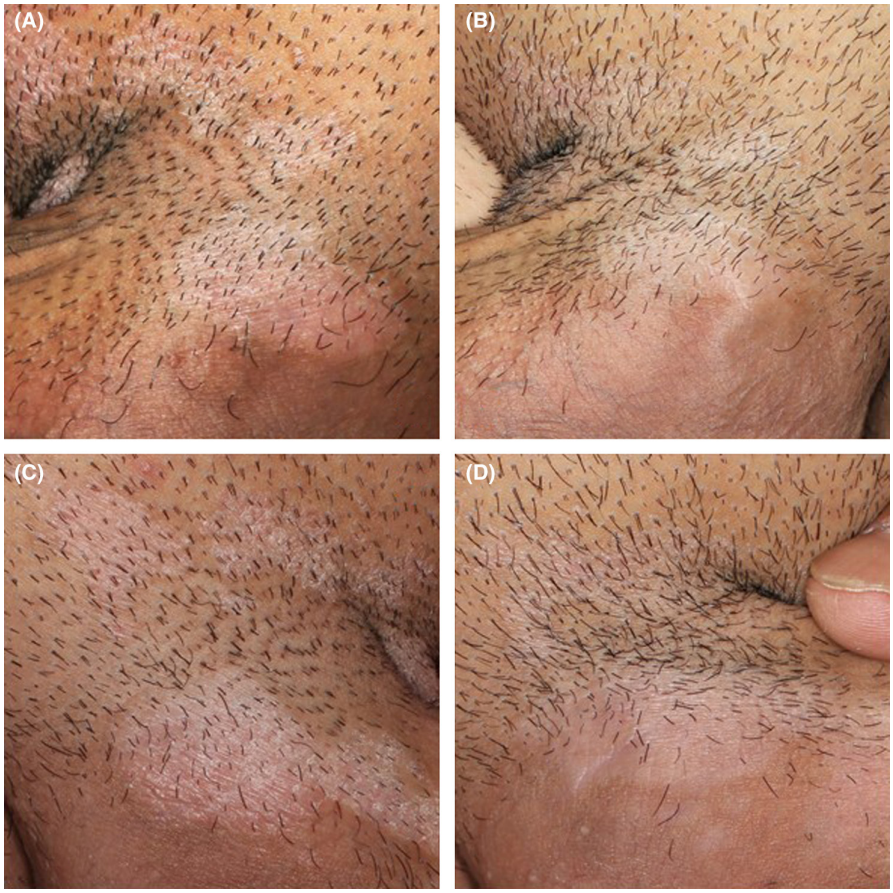

FIGURE 1 Prior to tildrakizumab treatment, scaly erythematous plaques were apparent on the scalp (no photograph) and the genital area (A, C). Four months after tildrakizumab initiation, the genital lesions improved and showed no induration, a smooth surface, and only depigmented macules (B, D). The Psoriasis Area and Severity Index scores of the genital lesions for erythema, thickness, and scaling improved from 1, 2, 1 (A, C) to 0, 0, 0 (B, D).

loading dose) based on the patient's wishes. After 4 months, his genital lesions improved without topical treatment (Figure 1A–D). Fifteen months later, the patient's DLQI score was maintained at 3. Finally, he has stopped complaining about the genital lesion.

Recent evidence supports in-class switching of biological agents in patients with psoriasis.[1,2] A systematic review and meta-analysis found that previous treatment with one IL-17 inhibitor did not appear to affect the efficacy of another IL-17 inhibitor.[2] These findings are important for both physicians and patients with intractable psoriasis. However, in-class IL-23 p19 inhibitor switching in psoriasis patients has not been extensively reported. A retrospective, single-center observational study from the USA found that patients who fail guselkumab may still respond favorably to risankizumab.[3] Two agents from the same class may exert different short-term effects due to repetition of the loading dose. A (nonclinical) comparative study of IL-23 p19 inhibitors by Zhou et al.[4] demonstrated that guselkumab and risankizumab exhibited fivefold higher affinities for IL-23 than did tildrakizumab and thus afforded more potent inhibition of IL-23 signaling. However, a real-world, single-center retrospective study comparing three IL-23 p19 inhibitors reported no significant difference among the three groups.[5] Thus, factors other than pharmacokinetic parameters may explain the different effects of various IL-23 p19 inhibitors in a single patient.

In real-world practice, psoriasis patients sometimes refuse to self-inject TNF-α and IL-17 inhibitors. In such cases, we suggest that in-class IL-23 p19 inhibitor switching should be attempted even if previous treatment with an IL-23 p19 inhibitor was not fully effective.

CONFLICT OF INTEREST

Dr. Kazuki Yatsuzuka received lecture fees from Abbvie, Eli Lilly, Janssen, Maruho, Novartis, Sun pharma, Taiho, and UCB; and received a research grant from Sun pharma outside the submitted work. Dr. Masamoto Murakami received lecture fees from Abbvie, Amgen, Eli Lilly, Janssen, Kyowa Kirin, Maruho, Novartis, and Taiho; and received a research grant from Abbvie, Eli Lilly, and Kyowa Kirin; and serves as a consultant to Amgen outside the submitted work.

DECLARATION SECTION

Approval of the research protocol: N/A.

Informed Consent: Written informed consent was obtained from the patient.

Registry and the Registration No. of the study/trial: N/A.

Animal Studies: N/A.

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