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Editorial

Secukinumab: The Anti-IL-17A Biologic for the Treatment of Psoriasis

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Interleukin-17 (IL-17) is a pro-inflammatory cytokine mainly produced by T helper 17 (Th17) lymphocytes. It is involved in inflammatory responses, promoting neutrophilic chemotaxis and angiogenesis. Keratinocytes are induced by IL-17 to express chemokines that promote recruitment of myeloid dendritic cells, Th17 cells, and neutrophils at the site of the lesion [1–4]. Several studies have demonstrated that IL-17 is pivotal in the pathogenesis of psoriasis, and thus represents a crucial therapeutic target [1, 5].

Secukinumab is a fully human immunoglobulin G1 kappa antibody, which targets IL-17A [6]. Secukinumab was the first anti-IL-17 biologic to be approved by the US Food and Drug Administration and the European Medicines Agency for the treatment of moderate-to-severe psoriasis and psoriatic arthritis (PsA) in adult patients [7].

Phase III trials compared secukinumab 150 and 300 mg, administered once weekly for 5 weeks, then every 4 weeks, with placebo and etanercept, and demonstrated that secukinumab is superior in terms of efficacy to etanercept, with similar safety in patients with moderate-to-severe psoriasis. A 75% reduction in the Psoriasis Area and Severity Index (PASI) score (PASI75) at week 12 was found in 81.6% of patients treated with secukinumab 300 mg in the ERASURE study and 77.1% in the FIXTURE study, compared with 44.0% of patients receiving etanercept [8].

A "head-to-head" study comparing secukinumab and ustekinumab (anti-IL-12/IL-23 monoclonal antibody) in moderate-to-severe psoriasis showed that secukinumab is superior to ustekinumab in clearing skin lesions and improving quality of life, with comparable safety. A 90% reduction in the PASI score (PASI90) at week 52 was observed in 74.9% of patients treated with secukinumab and in 60.6% of those treated with ustekinumab [9]. Bagel et al. [10] reported similar results in the CLARITY study, where patients were randomized to receive subcutaneous secukinumab 300 mg or ustekinumab.

Additional studies demonstrated that secukinumab was effective for the treatment of PsA and for difficult-to-treat variants of psoriasis such as palmoplantar psoriasis [11, 12].

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Real-life studies including different patient populations, patients with variable disease severity, and multiple concomitant diseases confirmed the efficacy and safety results of previous randomized trials with secukinumab [13–16].

The articles of this supplement issue present an update on the use of secukinumab in clinical practice for patients with psoriasis and PsA, enriched by the experience of the authors. Some special clinical scenarios are discussed to promote the correct use of the drug in challenging patients, such as those with cancer, infections and/or contraindication to antibiotic prophylaxis and obesity.

Campanati et al. [this issue] report their clinical experience in a patient affected by severe erythrodermic psoriasis with Kaposi's varicelliform eruption, successfully treated with secukinumab for 1 year. Psoriasis cleared and no recurrence of Kaposi's varicelliform eruption occurred.

In Ribero et al. [this issue], the authors describe 12 patients with moderate-to-severe plaque psoriasis eligible for systemic treatment and affected by latent tuberculosis infection. They received secukinumab without previous prophylaxis because of a clinical contraindication in 11 cases and refusal in 1 patient. None of them developed tuberculosis reactivation.

Concerning safety, secukinumab is well tolerated and did not show an increased risk of malignancy in clinical studies. In the case report described by Gambardella [this issue], secukinumab was effectively used in a psoriatic patient with a previous history of cancer.

Kostaki et al. [this issue] suggest that the combination of secukinumab with systemic therapy may be an effective and tolerated option for the management of severe psoriasis. In their case report describing a patient with a long-standing, moderate-to-severe, recalcitrant plaque psoriasis and PsA, treatment was optimized by adding methotrexate to secukinumab.

Tiberio et al. [this issue] show how secukinumab can be prescribed in patients with psoriasis in all body weight groups, even in the highest where usually clinical response shows a slight downward trend. They report on obese patients affected by psoriasis and PsA successfully treated with secukinumab.

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