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Case Report
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Erythrodermic Psoriasis Treated with Secukinumab with Rapid and Sustained Resolution

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Abstract

Psoriasis is a chronic inflammatory skin disease. Generally, it has a negative impact in quality of life. New treatment options for moderate-to-severe psoriasis are available with the development of IL-17 inhibitors. Secukinumab is a fully human monoclonal immunoglobulin G1 κ antibody that selectively inhibits the ligand IL-17A. It seems to be more effective than other biologic medications and safe, in cases of moderate-to-severe plaque type psoriasis. In this article we report a 68-years-old male patient showing an erythrodermic psoriasis with rapid and sustained response to secukinumab.

Keywords: Erythrodermic Psoriasis; Secukinumab; IL-17; Therapeutic Options in Psoriasis; Biologic Treatment for Psoriasis

Abbreviations

BSA: Body Surface Area; EP: Erythrodermic Psoriasis; HIV: Human Of The Immunodeficiency Virus; PASI: Psoriasis Area Severity Index; PGA: Psoriasis Global Assessment; PPD: Purified Protein Derivative

Introduction

Erythrodermic psoriasis (EP) is a rare, severe form of psoriasis. Its prevalence in psoriatic patients is 1-2%. EP affects more than 90% of the body surface and is associated with increased morbidity and mortality [1]. Some patients present an acute course that requires systemic, rapid-onset treatments; other experiences a chronic course with frequent relapses. No therapeutic guidelines are available for these patients, in whom the use of biologics may be an alternative [2]. Secukinumab, a human monoclonal anti-IL-17A antibody has been shown to be effective in moderate to severe plaque psoriasis, with sustained long-term efficacy after 4 years of treatment [3].

Case Presentation

A 68-year-old male patient presented with psoriatic plaques extending in a few days until developing erythroderma with no triggering factors been reported. His physical exam revealed chills, disseminated erythema and scales, bilateral ectropion and a psoriasis area severity index (PASI) index of 28, with 90% of the body surface area (BSA) affected, and a psoriasis global assessment (PGA) of 4 (Figures 1 and 2).

His personal history included alcohol and tobacco abuse, obesity, diabetes, arterial hypertension, and mild plaque psoriasis for the past 2 years treated with topical corticosteroids. His usual medication included hydrochlorothiazide, verapamil and imidapril started 5 years ago.

Laboratory tests showed normal hematology, normal renal and liver function tests, negative Mantoux, purified protein derivative (PPD) test, and negative serologic tests for hepatitis B and C and human of the immunodeficiency virus (HIV). His chest X-ray was normal.

Induction therapy with secukinumab 300mg subcutaneously every 7 days was initiated, with significant improvement after 30 days. He continued with maintenance doses of 300mg every 4 weeks.

After 15 months of maintenance treatment with secukinumab 300mg, the patient continued in remission, with 100% decrease in PASI and a PGA of 0.

Discussion

Although rare and uncommon, erythrodermic psoriasis is a severe form of psoriasis [2,4]. In

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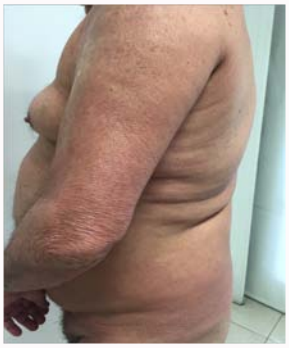

Figure 1: Erythrodermic psoriasis, generalized erythema and scaling.

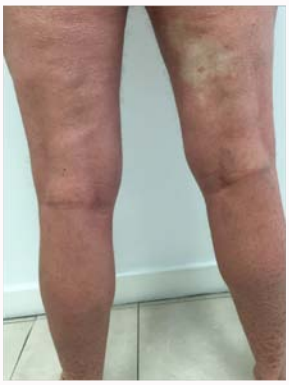

Figure 2: Erythrodermic psoriasis, extensive erythema and generalized scaling in the lower limbs.

severe cases, treatments of choice usually include cyclosporine and infliximab because of the rapid onset of action [5]. For sub-acute cases, methotrexate and acitretin may be used [5]. Second-line therapies include etanercept, adalimumab and ustekinumab [5,6,7].

Activated T-cells, especially Th-1, Th-17 and Th-22, are responsible for the secretion of different immunomodulating factors such as TNF-α, IFN-γ, IL-22 and IL-17, which are largely responsible for neutrophil attraction, cytokine release from keratinocytes, antimicrobial peptide expression and production of other proinflammatory cytokines in the skin [3,8,9]. Recently, the IL-17 pathway has been described as the predominant pathway in erythrodermic psoriasis [10]. These findings suggest that secukinumab, a human monoclonal antibody of the IgG1 type, selective against IL-17A, may be considered a therapeutic option for erythrodermic psoriasis because of its rapid onset of action and favorable safety profile [3]. Secukinumab has been approved for the treatment of severe plaque psoriasis and has been shown to be very useful for resolving generalized pustular psoriasis [3,4].

In conclusion, this patient showed a rapid and favorable response to secukinumab that was maintained after 15 months of treatment. Our observation allows supporting secukinumab as a first-line alternative for the treatment of erythrodermic psoriasis.

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Conflicts of Interest

Edgardo Chouela: PI/Consultant/Speaker of Galderma, Lilly, Novartis. No shareholder of pharmaceutical companies.

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