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Atopic-like dermatitis after Secukinumab injection: a case report

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Introduction

Psoriasis is a chronic, immune-mediated inflammatory skin disease which is associated with a substantial detritment to physical and psychological quality of life (Cozzani, et al., 2010). For this reason, it is imperative to find an effective and safe therapy.

A new class of biologic therapy that targets IL-17A has been discovered. One of these agents, Secukinumab (Novartis Pharmaceuticals), is an injectable, fully human monoclonal antibody and was recently approved by the US Food and Drug Administration for treatment of moderate to severe plaque psoriasis (Langley, et al., 2014). Secukinumab is safe and effective as showed in several clinical trials. The most common adverse effects reported were infection, nasopharyngitis, headaches, pruritus, hypertension, and back pain (Blauvelt, et al., 2015; Paul, et al., 2015).

We report Secukinumab- induced recurrent blepharitis, cheilitis and nose dermatitis, occurred at the same patient while was on therapy.

Case Report

A 70-year-old woman with intractable psoriasis vulgaris was treated with 300 mg of Secukinumab. Before starting the biologic therapy, her Psoriasis Area and Severity Index (PASI) was 15 and cyclosporine as well as methotrexate were given with no success.

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Six months after the first dose of Secukinumab was administered, she reached PASI 100. However she noticed recurrent blepharitis, cheilitis and nose-dermatitis, 4 days after every Secukinumab injection.

She was referred to our department for an evaluation of her skin eruption. She had no personal or family history of atopic dermatitis. On examination, erythematous papules, excoriation, and serous exudation were present at both lids, nostrils ad at the corners of her mouth (Fig. 1). There were no blisters and the diagnosis of a possible herpes discarded. A culture taken from all the three sites, ruled out a diagnosis of superficial dermatophytosis and candidiasis as well as bacterial infection. A blood test showed eosinophilia.

An atopic dermatitis eczema-like was diagnosed and Secukinumab stopped, consequently her skin eruption remarkably improved. Regrettably, after 9 months of complete clinical remission, psoriasis re-occurred, Fortunately, it was not severe and therefore treatable with just topicals and phototherapy.

Discussion

Secukinumab is a fully human anti-interleukin-17A monoclonal antibody. It has proven to be efficient and safe in moderate-to-severe plaque psoriasis, as showed in several clinical trials. In the study FEATURE, only oral and vulvovaginal candidiasis and injection site reactions were reported with regards to cutaneous adverse reactions. All side effects were mild and did not lead to the study

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treatment discontinuation. Searching through MEDLINE with regards to real life, only a few cases of Secukinumab cutaneous adverse events, are reported. A drug eruption and a perianal dermatophytosis were reported during Secukinumab therapy (Shibata, et al., 2017; Quach, & Hsu, 2016), but no cases of eczema. However, it is a different matter with regards to anti-TFNa research. Nakamura et al. reviewed the literature and selected 15 pieces which relate to eczema while on anti-TNFa therapy. (Nakamura, et al., 2017). In these 15 cases, the eczema diagnosis was mainly clinical, just like in our case, and a biopsy was done only when the diagnosis was uncertain. Furthermore, Esmailzadeh noticed how a personal history of atopy was a risk factor of developing an eczema during anti-TNFa therapy, although not a prerequisite condition, like in our patient's case. (Esmailzadeh, et al., 2009). The reason why an eczema developed during the anti-TNF therapy can be attributed to the fact psoriasis and eczema are thought to be diseases caused by an imbalance in the Th1/Th2 immune response, with Th1 being more prominent in psoriasis and Th2 predominating in eczema (Allam & Novak, 2006; Eyrich, et al., 2011). It is thought that the Th1 and Th2 pathways are closely related in that when the Th1 response is blocked or decreased, the Th2 balance will in turn increase, and vice versa (Eyrich et al., 2011). Anti-IL17 drugs block the Th1 pathway, just like the anti-TNFa agents, and this could explain why an eczema appeared on our patient. This is the first reported case of an

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eczematous reaction during a course of anti-IL17 drugs. The patient chose to stop the biological therapy as the eczema occurred with every injection and was beginning to affect the quality of her life. For this reason, we thought it was only fair to put it in writing and recommend to always ask the patients if they have a positive atopic dermatitis case history before starting a biological therapy.

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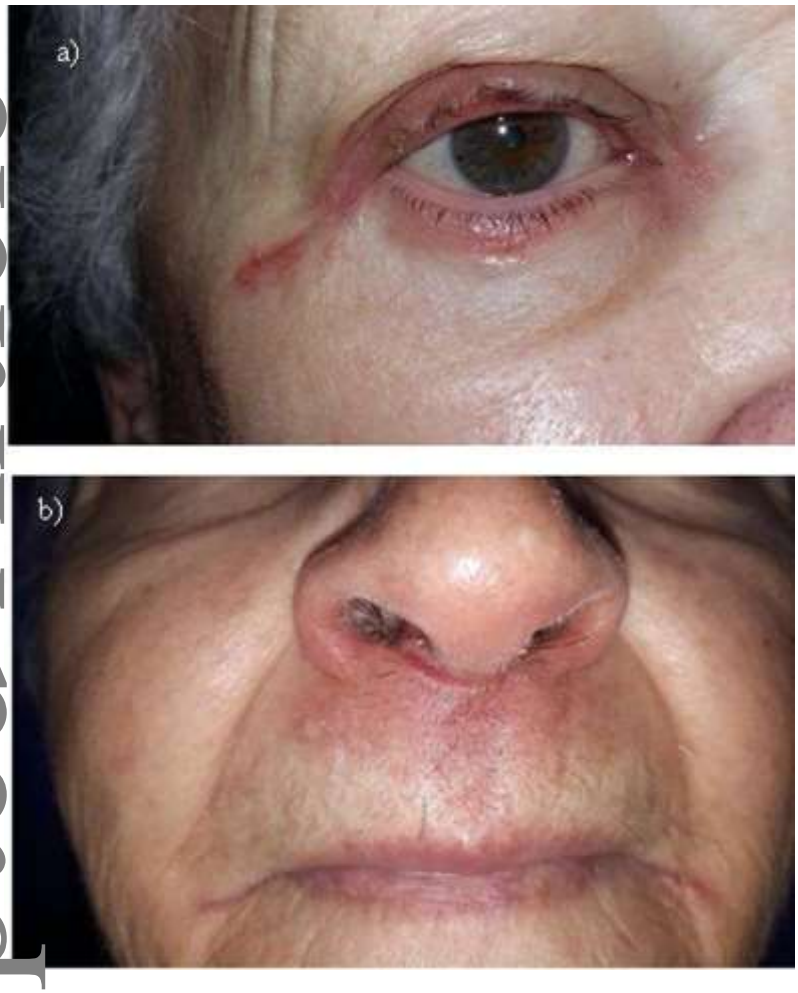
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Figure Legend

Figure 1: Eczema of the lids (a) and of the nose and mouth (b)



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