DOI: http://dx.doi.org/10.3315/jdcr.2013.1149

Journal of Dermatological Case Reports

Psoriasis treated successfully with ustekinumab in a cocaine-addicted patient

Efstathios Rallis, Chrysovalantis Korfitis, Alexandros Katoulis, Alexandra Katsarou

Department of Dermatology, Veterans Administration Hospital (NIMTS), Athens, Greece.

Corresponding author:

Efstathios Rallis, MD, PhD

Department of Dermatology,

Veterans Administration Hospital of Athens, 417 NIMTS

Monis Petraki 10-12, Athens, 11521, Greece

E-mail: *efrall@otenet.gr*

Key words:

ustekinumab, treatment, psoriasis, cocaine abuser

Abstract

Background: Psoriasis is a chronic, immune-mediated inflammatory disease estimated approximately in 2% of the European population. Drug abuse is reported in 3-5% of the global population.

Main observation: We present a 41-year-old, cocaine-addicted patient male with severe plaque-type psoriasis treated successfully with ustekinumab. The patient received ustekinumab at a dose of 45 mg subcutaneously at weeks 0, 4 and 16 and achieved PASI 75 at week 18.

Conclusions: Although several drug-abusers experience psoriasis, literature is very poor regarding the outcome of systemic treatment in those patients. In our patient no adverse effects were seen during the administration period of ustekinumab and no interactions between cocaine and ustekinumab were noticed. Nevertheless, more individuals and further studies are needed to establish the efficacy and safety of ustekinumab in the treatment of psoriasis in drug-abusers. (*J Dermatol Case Rep*. 2013; 7(3): 82-83)

Introduction

Psoriasis is a chronic, non-contagious, immune-mediated inflammatory disease seen approximately in 2% of the European population.[1] Depending on the severity, the location and the frequency of outbreaks, individuals may experience psychological distress that can lead to depression and social isolation affecting significantly their health-related quality of life.[2]

The drug abuse has been estimated to occur in 3-5% of the global population and approximately 13 million of them inject them.[3]

TNF-α inhibitors and ustekinumab are biological response modifying therapies that have been licensed for the treatment of moderate-to-severe psoriasis. Although several drug-abusers may experience psoriasis and/or eczemas, the literature is very poor regarding the efficacy of conventional and/or biological agents on those patients.

Case Report

A 41-year-old male with severe plaque-type psoriasis of 15-year duration refractory to topical corticosteroids, calcipotriol, methotrexate and cyclosporine was referred to our department. According to past medical history he had recently received etanercept successfully for 6 months at a dose of 50 mg twice a week that discontinued without medical advice, on August 2009. He remained almost free of psoriatic lesions for two months but after exacerbation of psoriasis he re-treated twice with etanercept ineffectively (December 2009, March 2010). He also mentioned that he was snorting cocaine once a week during the last 3 years.

At the time of the examination, his psoriasis involved the scalp, the trunk and the extremities (Fig. 1). His parameters were as follows: average psoriasis area and severity index (PASI): 28 (range 14—32) and physician's global assessment (PGA): 4 (range 0—5). He underwent laboratory tests including serological tests for hepatitis viruses B to D and HIV that were within normal range. Chest x-ray and tuberculin test were also negative. His body weight was less than 100 kg.

He received ustekinumab at a dose of 45 mg subcutaneously on July 2010, at weeks 0, 4 and 16. He achieved PASI 75 at week 18 (Fig. 2). The patient is still under treatment with ustekinumab at a dose of 45 mg every 12 weeks.

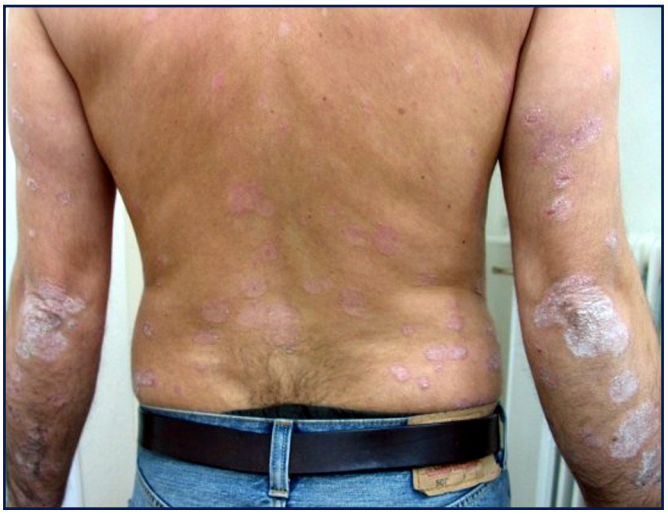

Figure 1

Before initiation of ustekinumab his psoriasis involved the scalp, the trunk and the extremities.

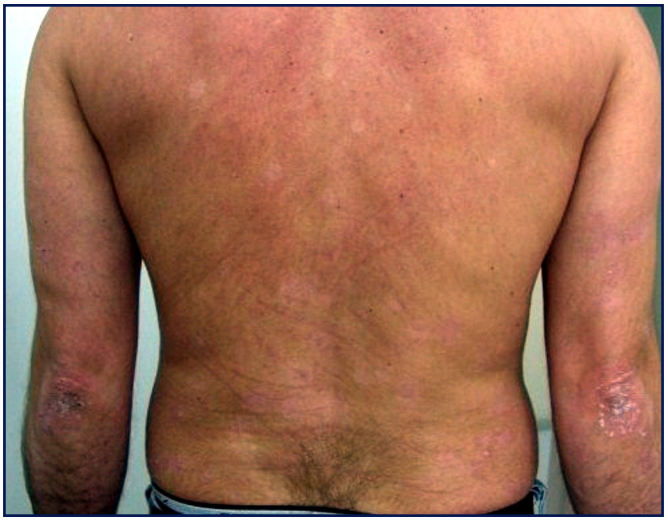

Figure 2

Significant improvement of psoriasis at week 18.

Discussion

Cocaine is an alkaloid prepared from the leaves of the Erythroxylon coca plant firstly reported as a local anesthetic. It is a serotonin-norepinephrine-dopamine reuptake inhibitor and acts as a potent central nervous system stimulant.[3] The initial signs of its use are hyperactivity, increased blood pressure and heart rate and euphoria. Side effects include paranoia, impotence, discomfort and depression.

Ustekinumab is a human monoclonal antibody that binds to the shared p40 protein subunit of interleukin 12 and interleukin 23 with high specificity and affinity and has been licensed for the treatment of moderate-to-severe plaque psoriasis. It has demonstrated high efficacy, rapid onset of action, favorable safety profile and convenient dosing[4]; however, there are no available data of the administration of ustekinumab on cocaine-addicted or drug-abused psoriatic patients.

The chronic use of cocaine may double the risks of hemorrhagic, ischemic strokes and myocardial infarction.[5] The recent reports of cardiovascular events that have been associated with the use of briakinumab (anti IL12/23) should be considered when choosing a biologic agent to treat cocaine abuser patients who have an increase risk of cardiovascular events.

In our cocaine-addicted patient, no adverse effects were seen during the administration period of ustekinumab and no interactions between cocaine and ustekinumab were noticed. Nevertheless, more individuals and further studies are needed to establish the efficacy and safety of ustekinumab in the treatment of psoriasis in drug-abusers.

References

1. Gudjonsson JE, Elder JT. Psoriasis: Epidemiology. *Clin Dermatol*. 2007; 25: 535-546. PMID: 18021890.
2. Sampogna F, Chren MM, Melchi CF, Pasquini P, Tabolli S, Abeni D; Italian Multipurpose Psoriasis Research on Vital Experiences (Improve) Study Group. Age, gender, quality of life and psychological distress in patients hospitalized with psoriasis. *Br J Dermatol*. 2006; 154: 325-331. PMID: 16433804.
3. Sanchez MR. Cutaneous manifestations of drug abuse. In: Fitzpatrick's Dermatology in General Medicine (Wolff K, Goldsmith L, Katz S, Gilchrest B, Paller A, Leffell D, eds), 7th edn. New York: Mc Graw Hill, 2008; 921-926.
4. Leonardi CL, Kimball AB, Papp KA, Yeilding N, Guzzo C, Wang Y, Li S, Dooley LT, Gordon KB; PHOENIX 1 study investigators. Efficacy and safety of ustekinumab, a human interleukin-12/23 monoclonal antibody, in patients with psoriasis: 76-week results from a randomised, double-blind, placebo-controlled trial (PHOENIX 1). *Lancet*. 2008; 371: 1665-1674. PMID: 18486739.
5. Vasica G, Tennant CC. Cocaine use and cardiovascular complications. *Med J Aust*. 2002; 177: 260-262. PMID: 12197823.