Safety and Efficacy of Etanercept in a HCV/HBV Patient Affected by Psoriasis

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A 65-year-old male patient presented to our dermatology clinic of our Institution in May 2014 for skin lesions and severe psoriatic arthritis. He had a 12-year-history of moderate-severe cutaneous psoriasis vulgaris, and all conventional treatments have failed. In fact, he had been previously treated with topical steroids, followed by cyclosporine, stopped for toxicity. He also had a chronic HCV hepatitis, genotype 1b, diagnosed 15 years before. At the time of baseline evaluation, HCV-RNA was 2.891.852 UI/mL, serum alanine and aspartate aminotransferase levels (respectively ALT and AST) were within normal level, as where the other serum function tests (alkaline phosphatase, gamma-glutamyl-transferase, bilirubin, albumin and platelets); 15 years before, the patient had undergone conventional treatment with interferon and ribavirin for the treatment of chronic HCV infection, stopped however for toxicity. He also had serological signs of previous resolved contact with the HBV, carrying antibodies to the HBV core antigen (anti-HBc) and antibodies to HBV serum antigen (anti-HBs). HBV surface antigen and HBVDNA were negative.

Performance status according to ECOG scale was 1, with mild physical impairment due to arthritic symptoms. On physical examination, he presented multiple large scaling plaques on the trunk, buttocks and legs; lesions were poly cyclic and confluent, forming geographic patterns (Figure 1).

Considering both the indication to biological therapy and the liver condition, the patient was referred to the hepatologists for a reassessment, aimed to evaluate possible contraindication to the etanercept treatment. Pretreatment liver biopsy performed to evaluate the grade of liver fibrosis and inflammation showed initial portal fibrosis (fibrosis stage 2 according to the Ishak classification), with minimal signs of inflammatory activity (grade 2). HCV RNA was repeated and was still within the 6 logs range as before (3.596.352 IU/mL). No major contraindications were posed by the hepatologist and only monitoring for possible HBSAg seroreversion and HCV flare were indicated.

In October 2014, treatment with etanercept 25 mg was started, administered by subcutaneous injections twice a week.

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Case Report

We would like to confirm the safety of etanercept in patients with current or signs of previous contact with the hepatitis virus, reporting the case of a patient with psoriasis, concomitant Hepatitis C Virus (HCV) infection, and serological stigmata of previous exposure to Hepatitis B Virus (HBV).

Psoriasis is a chronic inflammatory disease and it affects 2% of caucasian population. Its pathogenesis is multifactorial, involving both a genetic background and triggering environmental factors, such as bacterial infections, stress, traumas or drugs. Chronic plaque psoriasis is the most common type of psoriasis, characterized by chronic, recurring, scaly papules and plaques. Single or multiple lesions are usually bilateral, often symmetric, and localized on elbows, knees, sacral gluteal region, scalp and palm/soles. Furthermore, this inflammation can affect joints, with an invalidating arthritis; this complication may involve asymmetric peripheral joints of the upper extremities, especially distal interphalangeal sites, wrists, knees, ankles and lower back. Histological appearance of the skin lesions is an abnormal proliferation of keratinocytes associated with infiltration by activated T cells in the dermis. T cells are in fact the main protagonists of psoriasis pathogenesis as they produce several cytokines; among them, Tumor Necrosis Factor-α (TNFα) plays a key role in its immune-mediated steps, explaining the indication to treatments with anti-TNFα drugs (i.e., infliximab, adalimumab and etanercept).

However these therapies, influencing the immune system, may induce a reactivation of concurrent host infections; in particular, the risk of active and/or latent viral infections flares/reactivation has to be considered, since TNFα seems to be involved also in the inflammatory processes of chronic hepatitis.

Etanercept is a human recombinant soluble TNFα receptor that neutralizes TNFα activity by competitively inhibiting its interaction with cell-surface receptors, and the subsequent immune-mediated phases used to treat various autoimmune conditions, including both cutaneous and psoriatic arthritis.
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A follow-up program was planned, with HBsAg, and HCV RNA assessment after the first month of therapy, and then every 3 months.

The patient reported marked clinical benefits in terms of arthritic symptoms after only one month. Remarkable improvement of cutaneous lesions was also observed after 3 months. Meanwhile, monitoring of serum transaminases and other liver function tests did not show any toxicity. In particular, after 5 months of treatment, HBsAg remained negative and HCV RNA testing was revealed a numeric decrease to 1.399.943 IU/ml, with stability within the 6 log range.

Our patient continued to be free of significant plaque psoriasis during the follow-up period (Figure 2).

Data on etanercept safety in HCV positive patients affected by psoriasis are scanty, with 35 reports in literature showing its efficacy on skin and joints involvement together with low risk of liver impairment [1-5]. However, only one other subject with concomitant active HCV and signs of previous HBV contact has been described so far [6]. This report aims to underline the safety of etanercept administration to patients with psoriasis, concomitant HCV infection, mild liver disease, and signs of previous contact with HBV. The anti-TNF drug etanercept was evaluated as an adjuvant to the standard of care IFN and Ribavirin (Rbv) regimen in HCV patients, showing a higher decline of viral load and ALT in the etanercept patients in comparison to the placebo group [7]. Monitoring for liver function tests, and hepatitis reactivation/flare remains mandatory since HBV reactivations causing severe episodes of acute hepatitis have been associated to the use of biological therapy. Also presence and stage of cirrhosis should be evaluated, since in advanced/decompensate cases the risks/benefits assessment can contraindicate treatment. Etanercept was in fact very well tolerated in our patient (as nor clinical neither biochemical side effects have been observed), and very effective in terms of both skin and joint psoriatic lesions.

References


