

Safety of Anti-TNF- α Therapy in Patients With Psoriasis and Concomitant Hepatitis C Virus Infection

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Dear Editor,

Psoriasis is a chronic inflammatory disease characterized by excessive proliferation of keratinocytes. Hepatitis C virus (HCV) is an enveloped single-stranded RNA virus of the flaviviridae family that attacks the liver, causing inflammation and damage to liver parenchyma, resulting in hepatitis. Both HCV infection and psoriasis are widespread throughout the world and have high prevalence. Therefore, it is relatively easy for them to coexist within the same person. Moreover, several researchers have focused on psoriasis, as a dermatologic manifestation of HCV infection (1).

Although psoriasis and HCV-related liver disease are seemingly separate disorders, there are similarities between them. For instance, both diseases are associated with profound alterations in the host immune system, leading to immunological abnormalities. These changes are accompanied, in part, by perturbation of cytokine networks. Therefore, great attention has been paid to the network of inflammatory mediators, specifically tumor necrosis factor-alpha (TNF- α).

The TNF- α is a pleiotropic cytokine that is produced by different immune cells and induces inflammation. This inflammatory mediator is needed for normal innate and adaptive immune responses and exerts a protective action against infective agents, such as microbial pathogens or tumor cells. It can be considered as a double-edged sword, because too much TNF- α , for too long, can exacerbate conditions, such as autoimmunity or liver damage. Therefore, targeting TNF- α is a rational approach for the treatment of patients with psoriasis and concomitant HCV infection.

It is very probable that TNF- α contributes to the pathogenesis of both diseases, because high levels of this cy-

tokine have been observed in patients with psoriasis or HCV infection. Moreover, there is a significant correlation between serum levels of TNF- α and severity of psoriasis, or the liver inflammation and fibrosis in HCV infected patients. These findings reemphasize the importance of therapies that act as a TNF- α blockers.

In recent years, significant progress has been made in the biological drugs industry. In addition, immunomodulatory agents (biologics) have become important tools for the treatment of different types of disorders, such as autoimmunity and cancers. Among biologics, anti-TNF- α agents have potential for the treatment of patients with psoriasis, especially those who are refractory or intolerant to traditional therapy. Nonetheless, TNF- α neutralizing agents, like all drugs, can have side effects, such as increasing the risk of new infections or altering the natural course of preexisting infections. To date, there is no consensus on the safety of TNF- α antagonists, in patients with psoriasis and concomitant hepatitis C infection.

Several studies have demonstrated the safety of TNF- α neutralizing agents, in these patients. For instance, Paradisi et al. (2) have reported the safety and efficacy of TNF- α antagonists like etanercept in patients with coexisting psoriasis and HCV infection. These findings are in agreement with other studies demonstrating the efficacy and tolerability of TNF- α inhibitors in patients with psoriasis, psoriatic arthritis and concomitant hepatitis C infection (3, 4).

However, these results are in contrast with other studies that found an increased risk of HCV reactivation and viral replication in patients taking TNF- α antagonists (5). The main reason behind this controversy is limited available data in the literature, regarding the safety of TNF- α inhibi-

tors in patients with psoriasis and concurrent HCV. Therefore, more observation is necessary and the definitive results will demonstrate whether TNF- α antagonists can be regarded as the drugs of choice for patients with psoriasis and concomitant HCV.

Based on the current available data, we propose that the risk of HCV reactivation related to TNF- α inhibitors is low. Therefore, anti-TNF- α blockers may represent a therapeutic option in patients with psoriasis and concomitant hepatitis C infection. Nonetheless, the long-term use of anti-TNF- α agents must be accompanied by periodic clinical and laboratory (controls of hepatic enzymes and viral load) monitoring throughout the treatment period.

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