Use of Tumor Necrosis Factor-alpha Inhibitors in Patients with Chronic Hepatitis B Infection.

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OBJECTIVE: Tumor necrosis factor-alpha (TNF-alpha) inhibitors have emerged as a potent treatment for rheumatoid arthritis (RA), but not without significant risks. In chronic hepatitis B viral infection TNF-alpha is readily produced, and viral clearance is dependent on the amount bioavailable. Limited data suggest that TNF-alpha inhibitors may facilitate uncontrolled hepatitis B viral replication. The purpose of this article was to provide a detailed review of the role of TNF-alpha in controlling hepatitis B viral infection and the clinical impact blockade might have on viral control. METHODS: We describe a patient with chronic hepatitis B viral infection and RA treated with etanercept. We then review case reports, expert opinion, and manufacturer recommendations regarding hepatitis B viral infection, TNF-alpha, and TNF-alpha inhibitors. RESULTS: To date, 13 patients with chronic hepatitis B infection treated with TNF-alpha inhibitors have been reported: 11 with infliximab and 2 with etanercept. Some patients received antiviral therapy for hepatitis B (specifically lamivudine) before, during, or after TNF-alpha inhibitors were started. Clinically apparent reactivation of hepatitis B virus typically occurred 1 month after the 3rd dose of infliximab. Etanercept was not associated with a similar reactivation. The difference between infliximab and etanercept in viral reactivation may be linked to the pharmacologic difference of each medication. CONCLUSIONS: TNF-alpha inhibitors in general should be used cautiously in chronic hepatitis B viral infection. But if necessary, when deciding which agent to use, the clinician should consider the mechanism by which the body clears TNF-alpha.

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