Abstract

Objective. In order to analyze the effect on autoimmune thyroiditis (AT) of current anti-hepatitis C virus (HCV) treatment in HCV-infected patients, we performed a systematic review with meta-analysis of the available literature. The present meta-analysis was conducted to evaluate the strength and the consistency of the association between treatments with interferon-alpha (IFN-a) for HCV infection and AT. Material and methods. A search in Medline, PubMed, and EMBASE was conducted with a systematic review of clinical studies in English and other languages. Only studies in HCV subjects compared to a control group with hepatitis B (positive HBsAg) were considered. The relative risk (RR) of AT was regarded as the most reliable outcome end-point. The pooled odds ratio (OR) and 95% confidence intervals (95% CI) were calculated from the raw study data using the Mantel-Haenszel methods. We used a statistical evaluation of heterogeneity by the ÷2-test to assess whether the variation in treatment effect within trials of the same group was greater than it might be expected. Results. We identified 35 clinical trials with a total of 6,403 patients. Five trials were selected for analysis involving a total of 625 patients with hepatitis C treatment with IFN-á and 456 HBsAg-positive controls. These studies yielded a combined adjusted OR of 4.98 (95% CI 1.56-15.91). The test for heterogeneity was significant (P = 0.0008), and the test for overall effect was Z statistic 2.71 (P = 0.007). Conclusion. Our meta-analysis indicates that treatment with IFN-á for HCV infection has an increased risk of AT.

Keywords

Hepatitis C virus, hepatitis B virus, thyroid, autoimmunity, interferon-alpha, meta-analysis.