

Influence of Sustained Viral Response After HCV Therapy on Subsequent Hepatotoxicity Related to Highly Active Antiretroviral Therapy (HAART) in HIV/HCV-Coinfected Patients

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Background: HIV/HCV-coinfected patients have a higher incidence of grade 3 and 4 hepatotoxicity related to HAART than HIV-monoinfected patients. It is unknown whether an SVR after anti-HCV therapy influences the subsequent rate of HAART-related hepatotoxicity.

Methods: A retrospective study was performed on all HIV/HCV patients on HAART who ever received anti-HCV therapy. Starting with the first day of anti-HCV therapy, the cumulative incidence of AST and ALT elevations grade 2 ($>2.5 \times \text{ULN}$), grade 3 ($>5 \times \text{ULN}$) and grade 4 ($>10 \times \text{ULN}$) was recorded. Using Kaplan-Meier analysis, patients with and without an SVR was compared.

Results: Among 46 HIV/HCV patients on HAART who were treated for HCV, 7 (15.2%) achieved an SVR, and 39 did not. For AST elevations grade 2, there was a trend toward later incidence in SVR versus non-SVR patients (median, 62 vs 26 months, $P = 0.19$, log-rank), as it was for grade 3 toxicity (no event, SVR, vs mean, 72 months, non-SVR, $P = 0.20$, see Figure). There were no grade 4 AST elevations in either group. For ALT elevations, there was no difference in time to first event between SVR and non-SVR patients: grade 2, median, 61 versus 55 months, $P = 0.48$; grade 3, mean, 53 versus 77 months, $P = 0.81$; grade 4, no event versus mean, 96 months, $P = 0.58$. Of note, no SVR patient experienced a grade 4 elevation of either AST or ALT.

Conclusions: In HIV/HCV-coinfected patients, an SVR after HCV therapy tended to reduce the subsequent hepatotoxicity as measured by AST levels. However, in this small pilot study these trends were not statistically significant. A study with a larger number of subjects is needed to answer this question more definitively.

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Figure: Grade 3 AST level elevation in HIV/HCV-coinfected patients with and without SVR

