

## **Impact of GB Virus Infection on Response to HCV Therapy in HCV/HIV Co-infected Patients**

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**Background:** Several prior studies have shown that coinfection with GBV-C is associated with significantly slower HIV disease progression. Furthermore, recent studies linked GBV-C RNA with significant reduction in the severity of HCV-related liver disease in HIV/HCV coinfection. The effect of GBV on HCV treatment response, to our knowledge, has yet to be studied.

**Methods:** We prospectively followed 50 HIV patients who received treatment for HCV, drawing baseline GBV virus load, and serology. We retrieved their epidemiologic data and their HIV virus load, CD4, antiretroviral therapy, as well as their HCV genotype, virus load, and liver histology when available. Sustained virologic response (SVR) was our primary clinical end point. Patients were divided into groups depending on their GBV PCR, and antibody status to GBV-C E2 protein status.

**Results:** Out of 13 patients with GBV viremia, 46% had a SVR; 21 patients had negative PCR but positive anti-E2 antibody, 29% achieved an SVR; and out of 16 patients who had negative PCR and negative anti-E2 antibody, 44% had SVR. There was no statistical difference in occurrence of SVR in the 3 groups ( $P$  0.5016) also there was no difference among the 3 groups as related to sex, race, and HCV genotype ( $P$  0.6005, 0.4809, 0.6473, respectively).

**Conclusion:** Our findings indicated no significant difference in the rate of SVR in HIV/HCV coinfecting individuals with detectable GBV-C RNA compared to those with prior exposure. Although GBV seems to slow the progression of HIV disease and possibly reduce severity of HCV-related liver disease, it does not seem to increase the rate of SVR in HCV treated HIV coinfecting patients. Larger prospective studies in this population need to be looked at to better address this question.

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- No relevant financial relationships to disclose