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Response-Guided Therapy for Chronic Hepatitis C Virus Infection in Patients Coinfected with HIV: A Pilot Trial.

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Background. To study the feasibility of a response-guided therapy for chronic hepatitis C virus (HCV) infection in patients coinfected with human immunodeficiency virus (HIV) in a tertiary care hospital.

Methods. Treatment duration was individualized on the basis of week 4 and week 12 virologic response. Sixty patients were enrolled and received pegylated interferon alfa-2b (1.5 mug/kg per week) plus weight-based ribavirin (800-1400 mg/day). Patients who achieved a rapid virologic response, defined as viral load <50 IU/mL at treatment week 4, completed 24 weeks of therapy. Patients who did not achieve a rapid virologic response were reassessed at treatment week 12. Patients with a complete early virologic response, defined as an HCV RNA level <600 IU/mL, were treated for 48 weeks. Patients with a partial response, defined as a decrease in the viral load 2 log(10) and an HCV RNA level 600 IU/mL, who attained an undetectable viral load at week 24 were treated for 60 weeks. The primary efficacy end point was sustained virologic response, defined as HCV RNA <50 IU/mL, 24 weeks after the end of treatment.

Results. Overall, 33 (55%) of 60 patients achieved a sustained virologic response: 11 (44%) of 25 patients with HCV genotype 1, 3 (27%) of 11 patients with genotype 4, and 19 (79%) of 24 patients with genotype 3. One-third of patients showed a rapid virologic response. Of patients with genotype 1, there was a rapid virologic response in 4 (16%) of 25; with genotype 4, in 1 (9%) of 11; and with genotype 3, in 14 (58%) of 24. Of the 19 patients with a rapid virologic response, 17 (89.5%) eradicated the virus after 24 weeks of therapy. The rate of sustained virologic response was significantly higher among patients with genotype 3 and low pretreatment HCV RNA levels. A high relapse rate (46%) after 48 weeks of therapy occurred among patients infected with genotypes 1 or 4 who first achieved undetectable viral load at treatment week 12.

Conclusion. A response-guide therapy is feasible and may be useful to optimize the individual outcome of HCV treatment in patients coinfected with HIV.