New treatment therapy helps inhibit hepatitis C

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Two new studies examine the use of the nucleoside polymerase inhibitor, R1626, to the standard therapy for hepatitis C. The reports appear in the August issue of *Hepatology*, a journal published by John Wiley & Sons on behalf of the American Association for the Study of Liver Diseases (AASLD).

The first study shows that adding the treatment to standard therapy with pegylated interpheron alpha plus ribavirin leads to a synergistic antiviral effect. In the search for new and better treatments, researchers have been testing R1626, which previously has been used to inhibit HCV replication in vitro.

The study group included 104 patients with HCV genotype 1. Twenty-one took 1500 mg of R1626 twice a day along with peginterferon alpha-2a. Thirty-two took 3000 mg of R1626 twice a day along with peginterferon alpha-2a. Thirty-one took 1500 mg of R1626 twice a day along with peginterferon alpha-2a and ribavirin. And 20 took the standard of care treatment of peginterferon alpha-2a with ribavirin.

After four weeks, HCV RNA was undetectable in 29 percent, 69 percent, and 74 percent of patients in the respective study arms, compared to 5 percent of patients receiving the standard of care treatment.

"The results of the present study show a marked increase in antiviral effect in patients when ribavirin is added to the combination of R1626

and peginterferon alfa-2a," the authors report.

In conclusion, the authors report, "this phase 2a study has demonstrated a potent reduction in HCV RNA by R1626 and high viral responses with up to 74 percent rapid viral response after 4 weeks of treatment. The strong antiviral effect between R1626, peginterferon alfa-2a and ribavirin, suggests that the dose of one or both of these agents could be lowered to improve tolerability without significantly compromising efficacy."

A second study shows that, in patients with chronic hepatitis C, the antiviral activity increased with the dosage. Side effects were tolerable and there was no evidence of viral resistance.

For 14 days, the patients were treated with R1626 orally at twice-daily doses of either 500 mg, 1500 mg, 3000 mg, 4500 mg, or placebo. "The decreases in HCV RNA from baseline observed with R1626 indicates potent antiviral activity and lack of viral load rebound in the significant majority of patients following 14 days of monotherapy," the authors report. Current therapy for patients with chronic hepatitis C virus (HCV) requires up to 48 weeks of treatment.

In addition, the study showed that R1626 was well tolerated up to 3000 mg and there was no evidence of viral resistance in this study, perhaps reflecting the potency of R1626 as an anti-viral agent.

Source: Wiley