Cholesterol Drug Statin May Improve Standard Hep C Treatment Efficacy

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Medications sometimes prescribed to help manage high cholesterol levels also show promise as add-on treatments for hepatitis C, according to study results reported Thursday, March 31, at the 46th annual meeting of the European Association for the Study of the Liver (EASL) in Berlin.

According to Eugen Georgescu, MD, PhD, of the Filantropia Municipal Hospital in Craiova, Romania, and his colleagues, people living with hepatitis C virus (HCV) had improved sustained virologic responses (SVRs, or viral cures) when treated with pegylated interferon and ribavirin (IFN/RBV) plus the cholesterol-lowing statin fluvastatin (Lescol).

Test tube studies have suggested that statins may block proteins that HCV uses to replicate in liver cells, potentially improving the effectiveness of IFN/RBV treatment—especially in patients who require statins to manage high cholesterol levels.

Not all statins are equivalent in their HCV-blocking activity, however. According to test tube studies reported in 2008 in the journal Hepatology, the statin pravastatin (Pravachol) was not effective against HCV, whereas Lescol was found to be the most active against the virus of five statins tested.

In the study reported by Georgescu's team, 209 people living with genotype 1b HCV were given either IFN/RBV plus 20 milligrams (mg) of Lescol or IFN/RBV alone. IFN/RBV was given for 48 weeks; Lescol was given for a total of 72 weeks.

Both early virologic responses (EVRs) and SVRs were documented to evaluate treatment efficacy. EVR is an undetectable viral load at week 12 of treatment and is maintained until therapy is stopped. SVR is an undetectable HCV viral load 24 weeks after treatment is discontinued.

According to Georgescu's report, patients receiving Lescol and IFN/RBV had higher rates of EVRs than those receiving IFN/RBV alone: 76 percent compared with 62 percent. According to a statistical analysis known as an odds ratio, the chance of achieving an SVR using all three drugs was nearly doubled.

SVRs were also more common among those receiving IFN/RBV plus Lescol: 62 percent versus 50 percent.

When the researchers excluded patients with high pre-study cholesterol levels from the analysis, the combination of Lescol plus IFN/RBV still showed promise. In the triple-drug group, the EVR and SVR were 85 percent and 74 percent, respectively. Among those who received IFN/RBV alone, the ERV and SVR were 71 percent and 58 percent, respectively.

Rates of side effects, including reports of liver toxicity, were similar between both study groups.

“Fluvastatin showed a significant, albeit modest improvement in terms of EVR and SVR in [chronic hepatitis C patients] treated with standard PegIFN-ribavirin therapy,” Georgescu and his colleagues concluded. “This synergistic effect with interferon suggests that lipid-lowering agents might favor HCV clearance and can be useful in [hep C] treatment, irrespective of the presence of [high cholesterol levels].”
