Hep C Decays Faster in Blood Than in the Liver During Treatment

July 2, 2014

The first study to track in real time the decay of hepatitis C virus (HCV) has found that the virus breaks down more quickly in the blood than in the liver—findings that have implications for determining the proper length of treatment. Publishing their study results in Hepatology, researchers used fine-needle aspiration to sample the livers of 15 participants with hep C at various times during their treatment with Incivek (telaprevir).

The investigators measured viral kinetics, drug resistance patterns, drug concentrations and host transcription profiles. They found that viral decay in the liver occurred more slowly than in the blood, and that Incivek levels were also higher in the blood than in the liver.

“Our findings begin to define for how long patients may need to be treated in order to achieve viral eradication,” Andrew H. Talal, MD, a professor of medicine in the division of gastroenterology, hepatology and nutrition at the University of Buffalo, and the study’s lead author, said in a release.

“Until now, there has been no precise definition of the duration of treatment based upon serial measurements of the virus in the liver,” he says. “This is the first time such measurements have been performed during antiviral therapy.”

The techniques used in the study could help determine when drug resistance may arise in the blood and liver during treatment. They may also aid in vaccine development.

To read the study abstract, click here.

To read the press release, click here.