Noninvasive Hep C Test Nearly as Good as a Biopsy

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A noninvasive method for determining liver damage, called transient elastography, is nearly as accurate as a liver biopsy in people with hepatitis C virus (HCV) infection, according to a study published in the April 1 issue of *Clinical Infectious Diseases*.

A liver biopsy, which involves inserting a large needle through the back into the liver to collect tissue, can be quite painful and sometimes results in internal bleeding and other side effects. Biopsies can also, due to the small amount of tissue taken, underestimate the amount of liver damage a person living with hepatitis actually has.

Because of this, too many people infected with HCV avoid having biopsies in the United States. Nevertheless, biopsies are the gold standard for diagnosing liver damage in people infected with HCV and assessing the urgency for HCV treatment.

Elastography—which uses an ultrasound machine to detect the elasticity or stiffness of the liver—has proved in some studies to be quite effective. The stiffer the liver, the more likely it is to have damage. This noninvasive method has gained increasing acceptance in Europe, but it is not yet widely available in the United States outside research settings. Elastography has not, therefore, been tried in significant numbers of African Americans or in people coinfected with HCV and HIV.

To determine the method's accuracy in a U.S. population of people infected with HCV, Gregory Kirk, MD, PhD, from Johns Hopkins University in Baltimore, and his colleagues enrolled 192 HCV-infected patients participating in two Maryland cohorts to compare elastography and biopsy results. Most of the patients were male, African American and coinfected with HCV and HIV.

Kirk and his colleagues found that elastography results matched the results of liver biopsies about 85 percent of the time. In the remaining cases where there was disparity in the results, most people had an elastography score indicating more liver damage than was found in the biopsy.

The authors conclude that elastography could be useful in large clinical studies and that the technology could one day achieve greater accuracy. In the interim, they encourage physicians to

be cautious about interpreting a single test result, whether from elastography or biopsy, particularly when the result indicates little to no liver damage while other tests—such as elevated liver enzymes—suggest that liver damage is likely.

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