Fibroscan Versus Liver Biopsy

What is the difference between a liver biopsy and a Fibroscan?

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Examining the structural condition of the liver and determining what degree of liver damage has been traditionally been done with a liver biopsy, but new methods have been developed that are non-invasive and highly accurate.

Let us explain the Fibroscan itself and why it is important for a Hep C patient to have a liver biopsy or Fibroscan.

What is a Fibroscan? The Fibroscan device (Echosens) works by measuring shear wave velocity. Essentially, the technology measures the velocity of the sound wave passing through the liver and then converts that measurement into a liver stiffness measurement. Fibroscan is also called transient elastography. It is a non-invasive procedure. No needles or IV's are used. The result is immediate, it shows the condition of the liver and allows physicians to diagnose and monitor disease evolution in conjunction with treatment and collateral factors. Exam results help to anticipate various complications, as well as to monitor and assess the damage caused by conditions such as cirrhosis. The Fibroscan is painless, quick, and easy. During measurement, you feel a slight vibration on the skin at the tip of the probe.

Why does a Hep C Patient need a liver biopsy? What is the difference between a liver biopsy and a Fibroscan? Liver biopsy has long been the gold standard to stage fibrosis in the liver. In particular, liver biopsy has been used to evaluate patients with viral hepatitis (particularly those with hepatitis B virus [HBV] or hepatitis C virus [HCV] infection), to stage disease, and to determine whether treatment should be pursued.

The disadvantages of biopsy are that it is an invasive test, it requires the patient to be hospitalized for half a day, it is expensive, and it is associated with certain risks, such as pain and bleeding. (While bleeding due to liver biopsy is uncommon, it poses a significant risk when it occurs.)

In addition, liver biopsy samples only a small piece of the liver, which can lead to incorrect staging if this sample is not representative of the rest of the liver. Thus, liver biopsy can lead to sampling error, which may result in either over staging or under staging of fibrosis; sampling error may occur in up to 25-30% of liver biopsies.

Another limitation of liver biopsy is that different pathologists can interpret the same sample differently, which can result in discrepancies in liver disease staging. Given these limitations and

patients’ desire to avoid invasive testing, researchers have done much work over the past 10 years to develop noninvasive tests that can measure liver fibrosis.

Fibroscan is one such test, and it offers several advantages compared to liver biopsy. Because Fibroscan is a noninvasive test, it can be performed at the point of care, there is no pain, and sedation is not required.

Also, the test takes only 5—7 minutes to perform, it is significantly less expensive than liver biopsy, and it has not been associated with any side effects. Finally, the results of the test are instantaneous, so clinicians can use them to make decisions during patients’ visits.

Have you had a traditional liver biopsy, Fibroscan, or blood work to check for liver damage?

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