**BIOPSY OF LIVER**

Chukwuma Mercy, Vizir M.

Anatomical features of liver. The liver is a reddish brown organ with four lobes of unequal size and shape. A human liver normally weighs 1.44–1.66 kg (3.2–3.7 lb), and is a soft, pinkish-brown, triangular organ. It is both the largest internal organ (the skin being the largest organ overall) and the largest gland in the human body. It is located in the right upper quadrant of the abdominal cavity, resting just below the diaphragm. The liver lies to the right of the stomach and overlies the gallbladder. It is connected to two large blood vessels, one called the hepatic artery and one called the portal vein. The hepatic artery carries blood from the aorta, whereas the portal vein carries blood containing digested nutrients from the entire gastrointestinal tract and also from the spleen and pancreas. These blood vessels subdivide into capillaries, which then lead to a lobule. Each lobule is made up of millions of hepatic cells which are the basic metabolic cells. Lobules are the functional units of the liver.

Functions of the liver.  detoxification, protein synthesis, and production of biochemicals necessary for digestion.

Biopsy of liver. A liver biopsy is done using a needle inserted between two of the right lower ribs to remove a sample of liver tissue. The tissue sample is sent to a laboratory and looked at under a microscope to see if there are any liver problems.

Instruments use for biopsy. A liver biopsy may be done when liver blood tests are abnormal. It may be done when an X-ray, an ultrasound, or a computed tomography (CT) scan shows a problem with the liver.

A liver biopsy may be done to:

      Find the cause of jaundice. A liver biopsy can find certain liver diseases (such as cirrhosis), infections (such as hepatitis), and liver tumors.

      Find the cause of abnormal blood test results from aspartate aminotransferase (AST) and alanine aminotransferase (ALT) tests. Both ALT and AST levels show liver damage and can help confirm liver disease.

      See how much the liver is inflamed or scarred by hepatitis or other liver diseases.

      See whether other liver conditions, such as hemochromatosis and Wilson's disease, are present.

      Check the response to treatment for liver disease.

      Determine whether a medicine, such as methotrexate, is causing a toxic effect on the liver.

      Check the function of a transplanted liver.

      Find the cause of an unexplained and ongoing fever.

      Check a liver mass found on an X-ray, ultrasound, or CT scan.

A liver biopsy can also be done to find the cause of jaundice or to check on cirrhosis, hepatitis, or liver cancer.

Before you have a liver biopsy, tell your doctor if you:

      Are taking aspirin, nonsteroidal anti-inflammatory medicines (such as ibuprofenor naproxen), blood thinners (such as Coumadin or heparin), or antiplatelet medicines such as clopidogrel (Plavix). You may be asked to stop taking these medicines at least 1 week before the test to lower the chance of bleeding after the test.

      Are taking any heart medicines.

      Are using any herbal supplements.

      Are allergic to any medicines, including anesthetics.

      Have had bleeding problems.

      Are or might be pregnant.

      Have recently had pneumonia, which may make it hard to do this test.

      Have a history of fluid buildup in the belly (ascites). Ascites may make it hard to do this test.

Liver biopsy remains an important tool in the evaluation and management of liver disease. However it is invasive, can cause significant complications and clearly, needle liver biopsy is far from an ideal test. Even though it is an imperfect “gold standard”, liver biopsy remains an important tool in the evaluation and management of liver disease.