

Some Basics about Hepatitis C

WHAT IS HEPATITIS?

Hepatitis is a disorder involving inflammation of the LIVER.

Symptoms include loss of appetite, dark urine, fatigue, and sometimes fever. The liver may become enlarged and JAUNDICE may occur, giving the skin a yellow tinge.

Hepatitis may be acute or chronic. The acute form can subside after about two months or, rarely, can result in liver failure. Chronic carriers are at risk of lasting liver disease. Hepatitis A, once called infectious hepatitis, is the most common cause of acute hepatitis. Usually transmitted by food and water contaminated by human waste, such infections can reach epidemic proportions in unsanitary regions.

In the United States, increasing numbers of drug abusers are coming down with this form of hepatitis. Both hepatitis B and hepatitis non-A, non-B are spread mainly by blood or blood products, and type B is also known to be transmitted from mother to fetus and by intimate contact, including sexual intercourse. Type B virus is resistant to sterilization of instruments in hospitals, and it is also frequently seen in drug addicts who have shared needles.

It often causes an initial episode of liver disease, unlike non-A, non-B, but both forms occasionally lead to chronic hepatitis.

Researchers did not isolate a non-A, non-B virus until 1988. The virus they found, labeled C, probably is the cause of almost all cases of non-A, non-B hepatitis. Another form of hepatitis, called delta hepatitis, is caused by a very small virus that cannot replicate on its own. Instead it requires the presence of the hepatitis B virus.

First identified in 1977, the virus has since been characterized as a Flavivirus. Delta hepatitis can become chronic .Acute hepatitis may arise secondary to various infections that involve the liver. It can also occur through ingestion of carbon tetrachloride, the poisonous mushroom Amanita phalloides, arsenic, and certain drugs, including sulfonamides. Mild hepatitis can be caused by two forms of HERPES virus, cytomegalovirus and Epstein-Barr virus. Mild cases of acute hepatitis are treated with bed rest but no drug therapy.

In forms involving extensive liver damage, blood-exchange transfusions may be necessary. Chronic hepatitis leads to CIRRHOSIS and liver damage. Type B virus and certain drugs cause a small percentage of cases, but the cause of most occurrences is unknown; delta virus may be responsible for some of the relapses observed in patients with chronic active hepatitis. Type B infections have also been linked with a form of liver cancer called hepatocellular carcinoma, particularly in Asia and Africa. Of those contracting chronic hepatitis, most are women under the age of 45.

Steroids are used to treat certain cases of chronic hepatitis of nonviral origin, but their prolonged use in treating hepatitis B is not effective and may even hasten liver damage. Tests of a newer treatment that combines the use of steroids with alpha **INTERFERON**, however, are showing promise of greater effectiveness. Alpha interferon is also being tested against hepatitis C. In the 1970s, Baruch S. BLUMBERG developed a diagnostic test for type B hepatitis, and in 1981 a gene-splicing technique was used successfully to determine certain other viral types. A plasma-derived vaccine for type B virus was licensed in 1981, and a vaccine genetically engineered from yeast cells was licensed in

1986. Both are costly. A more recent oral vaccine genetically engineered from animal cells has shown promise in animal tests and may eventually provide a less expensive alternative. Robert D. Sparks

0.2 WHAT HAPPENS IN THE BODY?

The hepatitis A and E viruses first enter the gut and begin reproducing. They spread to the liver and multiply in liver cells. Hepatitis B, C, D, and G enter the bloodstream; when they pass through the liver, they enter liver cells and begin to reproduce. The body attacks the infected cells, which causes the liver to become inflamed. In hepatitis B infection, the liver usually repairs itself, leaving antibodies to the surface antigen, which shows that the infection occurred, but that the body defeated it.

0.3 WHAT IS THE INCUBATION PERIOD?

The incubation period (the amount of time that elapses between infection and the development of symptoms) varies for the different hepatitis viruses. Hepatitis A and E may develop as few as two weeks after exposure, but usually appear after four weeks. For hepatitis B and C it may take up to six months before symptoms develop. (The average incubation period is two to three months for hepatitis B and six to nine weeks for hepatitis C.) In experiments on chimpanzees, hepatitis D developed two to ten weeks after infection.

0.4 HOW DOES HEPATITIS C USUALLY BEGIN?

For a slight majority of patients, the illness begins suddenly as though one had come down with the flu. Except that this "flu" doesn't seem to completely go away. For many other patients, the onset appears gradually over a long period of time. Infants and young children often have no symptoms at all.

Many other symptoms may also be present, however they will typically be different among different patients. These include: fatigue, low-grade fever, headaches; slight sore throat, loss of appetite, nausea, vomiting, and stiff or aching joints. Many people develop a pain in the right side, over the liver area. The urine may become dark brown, and the feces may be pale. In severe acute infections, some people may develop jaundice in which the skin and whites of the eyes become yellowish.

The degree of severity can differ widely among patients, and will also vary over time for the same patient. Severity can vary between getting unusually fatigued following stressful events, to being totally bedridden and completely disabled. The symptoms have a tendency to wax and wane over time.

0.5. WHAT ARE THE DIFFERENT TYPES OF HEPATITIS?

The different types of VIRAL hepatitis are:

A (formerly called infectious hepatitis),

B (serum hepatitis),

C (formerly called non-A, non-B hepatitis),

D (delta hepatitis),

E (a virus transmitted through the feces of an infected person),
cryptogenic (or nonA, nonB, nonC).

G (a virus transmitted through infected blood products)

More hepatitis viruses are being discovered, but may be less common.

Other viruses, such as Yellow Fever, Epstein-Barr virus, Cytomegalovirus, as well as parasites and bacteria, can cause hepatitis as a secondary effect.

Other types of non-viral hepatitis are: Autoimmune, Wilson's disease, hemochromatosis, drug or chemical induced, alcoholic hepatitis.

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