

Hepatitis C

Epidemiological characteristics

It is estimated that approximately 58 million people worldwide have chronic hepatitis C virus infection. The estimated number of deaths from hepatitis C, mostly due to cirrhosis and primary liver cancer, was 290,000 in 2019. Before blood donors began to be tested for hepatitis C virus (HCV), it was the cause of most post-transfusion hepatitis cases. Hepatitis C is most prevalent in Central and East Asia and North Africa.

Cause and course of infection

HCV is a virus that causes liver inflammation. Twenty percent of infected individuals develop symptoms of acute viral hepatitis, while the rest show no characteristic signs of the disease despite being infected. The infection most often resolves spontaneously in infected children and those with a pronounced clinical picture, but in those without symptoms, the likelihood of spontaneous elimination of the virus is significantly lower. The presence of the viral genome 6 months after infection indicates chronic infection.

Symptoms and signs of the disease

Acute HCV infection in 80% of infected individuals occurs without clinical signs and symptoms. When they do occur, the main symptoms are those of acute inflammation: fatigue, nausea, pain under the right rib cage, dark urine, loss of appetite, and jaundice. The liver is often enlarged. Acute liver failure is rare. In approximately 80% of infected individuals, the disease becomes chronic. In 20%–30% of these patients, liver cirrhosis develops 20–30 years after infection, and a smaller proportion of patients may develop primary liver cancer.

Confirmation of infection

If the patient has a typical course of the disease (in the form of acute viral hepatitis), the infection is easily recognized and confirmed by a blood test. In others who show no signs of infection, it is detected by chance (e.g., during blood donation campaigns) or when symptoms and signs of serious liver disease (cirrhosis, primary liver cancer) become apparent. Antibodies against the HCV virus are determined, and viral nucleic acid is determined to confirm active infection.

Incubation period

Incubation period (the time from infection to the onset of disease) is 15–160 days.

Transmission

The hepatitis C virus is mainly transmitted through exposure to infected blood. To a lesser extent, the infection is transmitted through close contact between family members, sexual intercourse, and

from mother to child during pregnancy or childbirth. Heterosexual transmission is very rare, but in recent years there have been outbreaks of transmission among men who have sex with men. Today, transmission through blood and blood products (transfusion), which used to be common is very rare. All blood collected during blood donor campaigns is tested for the presence of the virus. Among intravenous drug users, hepatitis C spreads through the sharing of infected or unsterilized needles, syringes, and other injection equipment. The infection is transmitted through tattooing or the use of infected objects for skin piercing if they are not sterilized.

Susceptibility to infection

Anyone who is exposed to the virus is susceptible to infection. A previous infection does not result in permanent immunity, as reinfection with HCV is possible.

Treatment

Acute hepatitis C must be treated promptly to prevent it from becoming chronic. In the case of chronic HCV infection, treatment is available that is highly effective and almost always successful in eliminating the virus from the blood. Liver transplantation is possible in patients with life-threatening liver cirrhosis and primarily liver cancer.

We recommend that anyone diagnosed with hepatitis C also undergo a blood test for hepatitis B. due to similar mode of transmission, it is possible for a person to be infected with both hepatitis B and hepatitis C. If the test shows that the person is not infected with hepatitis B, we recommend vaccination.

Since HCV lives and multiplies in liver cells, caution should be exercised when consuming fatty foods and alcohol, as these can cause additional damage to the liver. Even if an infected person has no health problems, regular monitoring of liver function by an infectious disease specialist or personal physician is recommended.

Prevention

There is no vaccine against hepatitis c. condoms protect against sexual transmission. Protection against infection is also provided by the use of sterile needles, syringes, and other sharp objects, as well as personal hygiene items (razors, toothbrushes). A person who has been exposed to the risk of HCV infection should be monitored regularly until the end of the incubation period, as chronic infection can be prevented with timely treatment of acute hepatitis C.

An infected person must use only their own personal hygiene items (razors, toothbrush, towels, underwear, etc.) and cutlery. They must not donate blood, plasma, organs, or tissues. Cuts and skin injuries must be covered immediately so that blood and other secretions do not endanger the surrounding area.