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Viral Hepatitis... Types and Tips

Viral hepatitis is commonly caused by a viral infection affecting the liver and its cells. There are five main hepatitis viruses, referred to as types A, B, C, D and E.

1. Hepatitis A:

Hepatitis A is a liver disease caused by the hepatitis A virus. The virus is primarily spread when an uninfected person ingests food or water that is contaminated with the feces of an infected person.

Incubation Period:
Hepatitis A incubation period is 14 to 28 days.

Symptoms:
Symptoms of hepatitis A range from mild to severe sings, including:

- Fever and loss of appetite.
- Diarrhea and vomiting.
- Darkening excrement.
- Yellowing of the skin and eyes (jaundice).

All hepatitis A signs and symptoms may not occur; and they are more apparent among adults than they are among children.

Treatment:
There is no specific treatment for hepatitis A. Recovery from symptoms following infection may be slow and take several weeks or months. Therapy is aimed at maintaining comfort and adequate nutritional balance, including replacement of fluids that are lost from vomiting and diarrhea.

Prevention:

- Adequate supplies of safe drinking water.
- Proper disposal of sewage within communities.
- Personal hygiene practices such as regular hand washing with safe water.

- Vaccinations against hepatitis A are available, as they are all safe for children above one year. It is recommended to take such vaccines before travelling to infested areas.

2. Hepatitis B:

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus. It is a major global health problem and the most serious type of viral hepatitis. It can cause chronic liver disease and put people at high risk of death from cirrhosis of the liver and liver cancer, Allah forbid.

Worldwide, an estimated two billion people have been infected with hepatitis B. A vaccine against hepatitis B has been available since 1982. Hepatitis B vaccine is 95% effective in preventing infection and its chronic consequences.

Incubation Period:

The incubation period of the hepatitis B virus is 90 days on average, but can range from 30 to 180 days. The virus may be detected 30 to 60 days after infection and persists for variable periods of time.

Symptoms:

Hepatitis B triggers severe signs, lasting for several weeks, including:

- Yellowing of the skin and eyes (jaundice) and dark excrement.
- Fatigue diarrhea, nausea, vomiting and abdominal pain.
- Chronic infection of hepatitis B may develop into liver failure or liver cancer- Allah forbid.

Signs and symptoms of hepatitis B can be treated within about a couple of months to a whole year.

Transmission:

- Perinatal (from mother to baby at birth).
- Unsafe injection practices.
- Unsafe blood transfusions.
- Unprotected sexual contact.

Treatment:
Some people with chronic hepatitis B can be treated with drugs that help ease pain and eliminate symptoms, including interferon and antiviral agents.

Prevention:
1. The hepatitis B vaccine is the mainstay of hepatitis B prevention. The vaccine can be given in three or four separate doses, as part of existing routine immunization schedules. In areas where mother-to-infant spread of the hepatitis B virus is common, the first dose of vaccine should be given immediately after birth (i.e. within 24 hours).
2. All children and adolescents younger than 18 years old and not previously vaccinated should receive the vaccine. People in high risk groups should also be vaccinated, **including**:

    - partners and household contacts of infected people,
    - people who frequently require blood or blood products,
    - recipients of solid organ transplantation,
    - people at occupational risk of hepatitis B virus infection, including health-care workers,
    - and travelers to countries with high rates of hepatitis B.

3. It is important for anyone to avoid the tools possibly contaminated, especially those penetrating the skin, such as syringes, shaving blades and toothbrushes.
4. Avoiding unlawful, high-risk sexual behavior. And if one spouse is suffering from the disease for some reason or another, condoms should be used to prevent transmission to the other spouse.

3. Hepatitis C:

Hepatitis C is a contagious liver disease that results from infection with the hepatitis C virus. The hepatitis C virus is usually spread when blood from an infected person enters the body of a susceptible person.

Incubation Period:
The incubation period for hepatitis C is 2 weeks to 6 months.

Symptoms:

- Loss of Appetite.
- Nausea and vomiting.
- Muscle and joint pains.
- Fever.
- Dark urine.
- Yellowing of skin.

Transmission:

1. The hepatitis C virus is most commonly transmitted through exposure to infectious blood.
2. Acupuncture or accidental cuts with a needle or a contaminated scalpel while working in health-care settings such as labs, operation rooms or dialysis.
3. Cupping with contaminated syringes or shaving with a contaminated razor of an infected person's blood.
4. Unlawful, sexual intercourses.
5. Hepatitis C is not transmitted through by casual contact such as shaking hands, hugging, or sitting with an infected person.

Treatment:

Hepatitis C does not always require treatment. There are 6 genotypes of hepatitis C and they may respond differently to treatment. Careful screening is necessary before starting the treatment to determine the most appropriate approach for the patient.

Combination of antiviral therapy with interferon and ribavirin has been the mainstay of hepatitis C treatment. Unfortunately, interferon is not widely available globally, it is not always well tolerated, some virus genotypes respond better to interferon than others, and many people who take interferon do not finish their treatment. This means that while hepatitis C is generally considered to be a curable disease, for many people this is not the case.

Scientific advances have led to the development of new antiviral drugs for hepatitis C, which may be more effective and better tolerated than existing therapies. Two

new therapeutic agents, telaprevir and boceprevir have recently been licensed in some countries. Much needs to be done to ensure that these advances lead to greater access and treatment globally.

Prevention:

1. Avoiding sharing personal items of others such as toothbrushes, shaving razors, or blood sugar analysis tools.
2. Being cautious when handling contaminated blood as for healthcare providers.
3. Wearing gloves while dealing with blood in cases of home accidents (injuries) if a family member is infected with hepatitis C.
4. Avoiding use of illicit drugs; as sharing of injection equipment is a cause of having hepatitis C.
5. Avoiding unlawful, unprotected sex.

4. Hepatitis D:

Hepatitis D or (delta hepatitis) is caused by the hepatitis delta virus (HDV), a defective RNA virus. HDV requires the help of a hepadnaviral like hepatitis B virus (HBV) for its own replication.

Transmission:

Hepatitis D is transmitted through:

- Transfusion of blood and blood products.
- Sexual contact.
- Syringe-drug addicts are prone to the disease.

Treatment:

Disease conditions may occasionally improve with administration of interferon-alpha (used for the treatment of hepatitis B and D). Some studies suggest using higher doses for the treatment of hepatitis D than B.

Prevention:
Up until now, there is no vaccination against this virus. However, since being infected with hepatitis D is primarily caused by hepatitis B, vaccinating against hepatitis B indirectly provides protection against both hepatitis B and D.

Since HDV is dependent on HBV for replication, control of HDV infection is achieved by targeting HBV infections. All measures aimed at preventing the transmission of HBV will prevent the transmission of hepatitis D. HBV vaccination is therefore recommended to avoid HBV-HDV coinfection. However, there is no effective measure to prevent HDV infection of chronic HBV carriers, and prevention of HBV-HDV superinfection can only be achieved through education to reduce risk behaviors. Promising research results indicate that in some woodchucks immunized with recombinant purified HDAg-S complete protection is possible.

5. Hepatitis E:

Hepatitis E is a liver disease caused by the hepatitis E virus.

Transmission:
The hepatitis E virus is transmitted mainly through the fecal-oral route due to fecal contamination of drinking water. Other transmission routes have been identified, which include:

- foodborne transmission from ingestion of products derived from infected animals;
- transmission from animals to humans;
- transfusion of infected blood products;
- vertical transmission from a pregnant woman to her fetus.

Incubation Period:
The incubation period following exposure to the hepatitis E virus ranges from three to eight weeks, with a mean of 40 days. The period of communicability is unknown.

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Symptoms:

- Jaundice (yellow discoloration of the skin and sclera of the eyes, and pale stools);
- Fatigue;
- Anorexia (loss of appetite);
- Nausea;
- Abdominal pain and tenderness;
- Fever;
- Dark urine;
- Joint pain.

Prevention:
The risk of infection and transmission can be reduced by:

- Sanitizing public water supplies;
- Avoiding eating uncooked contaminated foods, as heat kills viruses.
- Establishing proper disposal systems to eliminate sanitary waste from drinking water;
- Maintaining hygienic practices such as hand washing with safe water and soap after using the toilet.

Treatment:
There is no available treatment capable of altering the course of acute hepatitis. Prevention is the most effective approach against the disease.

As hepatitis E is usually self-limiting, hospitalization is generally not required. However, hospitalization is required for people with fulminant hepatitis and should also be considered for infected pregnant women.

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