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HEPATITIS A

Overview

Hepatitis A is a highly contagious liver infection caused by the hepatitis A virus (HAV). Although not usually as serious as other types of viral hepatitis, hepatitis A causes inflammation that affects your liver's ability to function. This is significant because the liver performs hundreds of tasks that are essential for health and life.

You're most likely to contract hepatitis A from contaminated food or water or from close contact with someone who's already infected — even if that person doesn't appear sick. Some people who are infected never develop signs and symptoms, but others may feel as if they have a severe flu.

Mild cases of hepatitis A don't require treatment, and most people who are infected recover completely with no permanent liver damage. Unlike hepatitis B and C, hepatitis A doesn't develop into chronic hepatitis or cirrhosis — both potentially fatal conditions.

Following good hygiene practices — including washing your hands often — is one of the best ways to protect against hepatitis A. Effective vaccines are available for people who are most at risk.

Signs and symptoms

Some people may have hepatitis A and never develop signs and symptoms. Young children, especially, tend to have mild cases, but symptoms in older children and adults are likely to be more severe. In general, you'll have the virus for up to three weeks before developing any problems. When signs and symptoms appear, they often come on suddenly, and you may mistake them for intestinal flu (gastroenteritis). They include:

- Fatigue.
- Nausea and vomiting.
- Abdominal pain or discomfort, especially in the area of your liver on the right side beneath your lower ribs.
- Loss of appetite.
- Low-grade fever.
- Yellowing of your skin and the whites of your eyes (jaundice). Not all people with hepatitis A develop jaundice. It occurs when your liver isn't able to remove the

residue of old red blood cells — known as bilirubin — from your blood. Eventually, the level of bilirubin builds up and is deposited in your skin, causing a yellow color.

- Muscle pain.
- Itching.

You'll likely have more energy after symptoms disappear, and your liver may heal completely within one or two months. About 15 percent of people with hepatitis A have relapses over a six- to nine-month period.

Causes

Your liver is located on the right side of your abdomen, just beneath your lower ribs. It performs more than 500 functions, including processing most of the nutrients absorbed from your intestine, removing drugs, alcohol and other harmful substances from your bloodstream and manufacturing bile — the greenish fluid stored in your gallbladder that helps digest fats. Your liver also produces cholesterol, blood-clotting factors and certain other proteins.

Because of the complexity of the liver and its exposure to so many potentially toxic substances, it would seem especially vulnerable to disease. But the liver has an amazing capacity for regeneration — it can heal itself by replacing or repairing injured cells. It's also constructed so that healthy cells will take over the function of damaged cells, either indefinitely or until the damage has been repaired. Yet in spite of this, your liver is prone to a number of diseases, including viral hepatitis.

Hepatitis A virus is one of six currently identified strains of viral hepatitis — the others are B, C, D, E and G. The strains differ in severity and in the way they spread.

HAV is usually transmitted via the fecal-oral route. That means that someone with the virus handles food you eat without washing his or her hands after using the bathroom. You can also contract the virus by drinking contaminated water, eating raw shellfish from water polluted with sewage or being in close contact with a person who's infected — even if that person has no signs and symptoms. In fact, the disease is most contagious before signs and symptoms ever appear.

Risk factors

About one-third of Americans have antibodies to HAV, which means they have been exposed to the virus sometime in their life. You're at increased risk if you:

- Travel or work in regions with high rates of hepatitis A. These include many countries in Africa, Asia, India, Central America and South America. You're at some risk even if you stay in luxury hotels and are careful about what you eat.
- Live in an American Indian, Alaskan native or other community where lack of public services tends to lead to outbreaks of hepatitis A.

- Are a sexually active gay or bisexual man.
- Work in a research setting where you may be exposed to the virus.
- Have hemophilia, or receive clotting-factor concentrates for another medical condition. In rare cases, hepatitis A may be transmitted through blood transfusions.

In general, food handlers, health care workers and children who attend child care are not at increased risk of contracting HAV. Although outbreaks of hepatitis A sometimes occur in child-care settings, they can be prevented if workers follow good hygiene practices.

Screening and diagnosis

See your doctor if you have symptoms of hepatitis A or think you may have been exposed to the virus. Tests can accurately diagnose whether you've been infected.

In some cases, your doctor may check the amount of bilirubin in your blood. Normally your liver metabolizes this residue of worn-out red blood cells and you excrete it in your urine. But hepatitis interferes with your liver's ability to metabolize bilirubin, leading to higher levels in your blood. Your doctor may also look for elevated blood levels of enzymes known as aminotransferases [AST/ALT], which are released when your liver is damaged.

Although both these tests can suggest the presence of hepatitis, you'll need a blood test called a radioimmunoassay to pinpoint the exact type of hepatitis you have. This test identifies antibodies your immune system has formed in response to the presence of antigens — proteins that are unique to a particular virus. Antibodies may not appear for weeks or even months after you develop hepatitis, so having the test too soon may give a false-negative result.

In addition, you continue to have antibodies even after you recover. For that reason, the presence of some antibodies doesn't necessarily indicate an active infection.

Complications

In most cases of hepatitis A, the liver heals completely in a month or two with no lasting damage. Furthermore, the virus doesn't remain in your body once you've recovered. Older adults and people with other medical problems such as congestive heart failure, diabetes and anemia may take longer to recover and are likely to have a more serious course of the disease.

In rare cases, **fulminant hepatitis** — a life-threatening condition that causes liver failure — may develop. Especially at risk are people with chronic liver disease or a liver transplant.

In addition, some studies suggest that the inflammation triggered by hepatitis A may contribute to hardening of the arteries (atherosclerosis) — the gradual buildup of hardened deposits in your arteries.

Treatment

No specific treatment exists for hepatitis A. Instead, the main focus is on making sure you get adequate nutrition and avoiding any permanent liver damage. If you're nauseated, eating small snacks throughout the day instead of three large meals may help. Soft, easily digested foods such as soup or broth, yogurt and toast may be the most appealing. You may also find you can tolerate food better in the morning than later in the day.

As soon as you've received a diagnosis of hepatitis A, talk to your doctor about any medications you take, including those you buy over-the-counter. Your doctor may recommend stopping or changing some of them. Also, avoid drinking alcohol during the acute phase of your illness. Even after you've recovered, don't mix alcohol and acetaminophen (Tylenol, others), which can cause liver damage even in people who haven't had hepatitis.

Prevention

Hepatitis A is highly contagious. Preventing the spread of the virus involves protecting both yourself and others from infection.

Protecting yourself

The following measures can help protect you from HAV infection:

Receive immune globulin or a hepatitis vaccine. The best way to protect yourself is to receive an injection of immune globulin — a preparation of antibodies — or a hepatitis vaccine. Immune globulin provides short-term protection, while a hepatitis vaccine may protect you for up to 20 years. The Food and Drug Administration (FDA) approved the first vaccines for hepatitis A in the mid-1990s. These vaccines — Havrix and Vaqta — contain inactivated forms of HAV and are safe for children older than 2 years as well as for most adults, including those with compromised immune systems. At-risk children younger than 2 years should receive immune globulin. The vaccine causes only minor side effects, although allergic reactions can sometimes occur. Because it takes four weeks for the vaccine to take effect, get an immune globulin shot if you're traveling to a high-risk region before you're fully immunized. In addition, get a booster shot in six to 12 months.

The FDA approved another hepatitis vaccine, Twinrix, in May 2001. Twinrix protects people 18 years of age and older against both HAV and the hepatitis B virus (HBV). Studies have shown Twinrix to be as effective as the separate HAV and HBV vaccines. The side effects are usually minor and include soreness at the injection site, headache and fatigue. These symptoms should disappear within 48 hours.

If you're at high risk of hepatitis A and don't have health insurance, talk to your state or county health department. In most areas, free or low-cost vaccines are available.

If you've already had hepatitis A, you won't need to be immunized because you've developed your own protective antibodies. These antibodies won't protect you from other forms of hepatitis, however.

Follow safety precautions for international travelers. If you're traveling in regions where hepatitis A outbreaks occur, you can help prevent infection by peeling and washing all fresh fruits and vegetables yourself and by avoiding raw or undercooked meat and fish. Be sure to drink bottled water and avoid ice cubes in beverages. If bottled water isn't available, boil tap water for at least 10 minutes before drinking it. Don't forget to use bottled water for tooth brushing.

Follow good hygiene practices. Simply washing your hands well and often can help protect you from infection with a number of viruses and bacteria. Wash after using the bathroom, before preparing food or eating, and after changing a child's diaper. In addition, don't share towels, eating utensils or toothbrushes.

Protecting others

If you have hepatitis A, the following measures can help prevent you from passing the virus to others:

If you're a gay or bisexual man, avoid sexual activity. Because HAV can be transmitted through oral-anal and digital-anal activity, using a condom won't necessarily protect your partner.

Wash your hands thoroughly after using the bathroom. Scrub vigorously for at least 10 seconds and rinse well. If possible, dry your hands with a disposable towel.

Use clean utensils. Keep your utensils separate from those used by other members of your household. Wash utensils and dishes in a dishwasher or with plenty of hot, soapy water.

Don't prepare food for others while you're actively infected. You can easily pass this highly contagious infection along to other people.