CONDITION

Autoimmune hepatitis

Learn how autoimmune hepatitis affects the liver, including possible symptoms, diagnostic tests, treatment options, complications, and follow-up care.

WHAT IT IS
Long-term inflammatory liver disease

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Tiredness, joint or muscle aches, nausea, jaundice

WHAT CAUSES IT
Immune attack, exact cause unknown

HOW IT IS DIAGNOSED
Blood tests and liver biopsy

MAIN TREATMENT
Immune-suppressing medicines

CAN IT BE CURED?
No, treatment controls inflammation, relapse common

IS IT AN EMERGENCY?
Sometimes, with vomiting blood or severe confusion

LONG-TERM OUTLOOK
Usually controllable, but cirrhosis can develop

Overview

Autoimmune hepatitis is a long-term disease in which the immune system mistakenly attacks the liver. This causes inflammation and can damage liver cells. "Hepatitis" means liver inflammation. In this condition, it does not mean that the inflammation came from a contagious hepatitis virus.

Autoimmune hepatitis can begin at any age. Some people have mild changes found during routine blood tests. Others develop noticeable symptoms or a sudden illness that resembles acute viral hepatitis. Without treatment, ongoing inflammation may cause liver scarring, known as fibrosis. Severe scarring is called cirrhosis.

Autoimmune hepatitis is usually treatable. Medicines that reduce immune system activity can control inflammation and help prevent further liver damage. Treatment often continues for

years, and some people need lifelong therapy. Regular monitoring is important because the condition can become active again after improving.

Autoimmune hepatitis is different from fatty liver disease and liver injury caused by alcohol, medicines, or viruses. However, more than one liver condition can occur at the same time. A liver specialist, often called a hepatologist, can help clarify the diagnosis and guide treatment.

Symptoms

Some people have no symptoms when autoimmune hepatitis is first detected. Abnormal liver blood tests may be the only sign.

When symptoms occur, they may develop slowly or appear over days to weeks. Possible symptoms include:

Symptoms do not always match the amount of liver inflammation. A person with few symptoms can still have significant liver injury, while fatigue or abdominal discomfort may have causes unrelated to the liver.

Advanced liver scarring can interfere with blood flow and normal liver function. This may cause fluid buildup in the abdomen, called ascites; swelling in the legs; easy bruising; or confusion from a buildup of substances that the liver normally clears.

Jaundice, rapidly worsening symptoms, new abdominal swelling, or unusual bleeding should be assessed promptly. Vomiting blood, passing black and tar-like stools, fainting, severe confusion, or difficulty staying awake requires emergency care.

- Ongoing tiredness or weakness
- Joint or muscle aches
- Nausea, poor appetite, or unexplained weight loss
- Discomfort in the upper-right part of the abdomen
- Itchy skin
- Yellow skin or eyes, called jaundice
- Dark urine or pale stools
- Irregular or absent menstrual periods

Causes and risk factors

The exact cause of autoimmune hepatitis is not fully understood. It likely develops through a combination of inherited susceptibility and environmental triggers. The immune system loses some of its normal ability to distinguish liver cells from harmful substances and begins attacking healthy tissue.

Autoimmune hepatitis is not contagious. It is not caused by drinking alcohol, although alcohol can add to liver injury in someone who already has the condition.

Factors associated with autoimmune hepatitis include:

Some medicines can cause liver injury that resembles autoimmune hepatitis. In certain cases, the inflammation improves after the medicine is stopped. In others, immune-suppressing treatment may be needed. People should not stop a prescribed medicine without discussing it with a clinician unless they are receiving emergency instructions.

Autoimmune hepatitis is sometimes grouped into types based on which antibodies are found in the blood. These categories can support the diagnosis, but they do not fully predict a person's symptoms, treatment response, or long-term outlook.

- Being female, although people of any sex can develop it
- Having another autoimmune condition, such as autoimmune thyroid disease, type 1 diabetes, celiac disease, inflammatory bowel disease, or certain inflammatory joint conditions
- Having a close relative with an autoimmune disease
- Exposure to certain medicines or infections that may trigger immune activity in a susceptible person

Diagnosis

No single test confirms autoimmune hepatitis in every person. Diagnosis usually combines medical history, blood tests, imaging, and a liver biopsy. Clinicians must also rule out other causes of liver inflammation.

The medical history may cover symptoms, alcohol use, recent infections, family history, autoimmune diseases, and all medicines or supplements. This includes nonprescription pain relievers, vitamins, herbal products, and workout or weight-loss supplements.

Blood testing commonly includes:

A negative antibody test does not always exclude autoimmune hepatitis. Test results must be interpreted together rather than in isolation.

Ultrasound or another imaging study may look for liver changes, blocked bile ducts, masses, or

signs of cirrhosis. Imaging cannot usually confirm autoimmune hepatitis by itself.

A liver biopsy is often important. During this procedure, a clinician removes a small sample of liver tissue with a needle, usually after numbing the skin. A pathologist examines the sample for the pattern and severity of inflammation and for fibrosis or cirrhosis. The care team should explain the procedure's benefits, preparation, and risks.

- Liver enzymes, especially alanine aminotransferase and aspartate aminotransferase, which rise when liver cells are injured
- Bilirubin, which may increase when the liver cannot process it normally
- Alkaline phosphatase and other tests that help assess the liver and bile ducts
- Immunoglobulin G, or IgG, an immune protein that is often elevated
- Autoantibodies, such as antinuclear antibodies, smooth muscle antibodies, liver-kidney microsomal antibodies, or soluble liver antigen antibodies
- Tests for viral hepatitis and other possible causes of liver disease
- Blood counts and tests of the liver's ability to make proteins needed for clotting

Treatment and management

Treatment aims to stop liver inflammation, normalize blood tests, relieve symptoms, and prevent further scarring. The plan depends on disease severity, biopsy findings, other health conditions, pregnancy considerations, and previous treatment response.

Initial treatment usually includes a corticosteroid, such as prednisone or prednisolone. Corticosteroids like prednisone or hydrocortisone reduce immune system activity quickly. Azathioprine, another immune-suppressing medicine, is often added so that the steroid can be reduced over time. Budesonide may be an option for selected people who do not have cirrhosis, but it is not appropriate for everyone.

Treatment has two broad stages. The first brings active inflammation under control. The second maintains remission, meaning symptoms and laboratory signs of inflammation remain controlled. Medicines should not be reduced or stopped without guidance because liver inflammation can return without causing immediate symptoms.

Monitoring helps identify side effects. Corticosteroids can affect mood, sleep, appetite, blood sugar, blood pressure, infection risk, and bone strength. Azathioprine can affect blood cell production and may cause digestive, liver, or pancreatic problems. Clinicians generally order regular blood counts and liver tests and may perform additional testing before or during therapy.

If standard medicines are ineffective or poorly tolerated, a liver specialist may consider other immune-suppressing treatments. These can include mycophenolate or medicines known as calcineurin inhibitors. The benefits and risks vary, and some medicines require special planning before pregnancy.

Severe acute autoimmune hepatitis may require hospital care. Liver transplantation may be considered if liver failure develops or if advanced disease cannot be controlled. Transplantation replaces the damaged liver, although autoimmune hepatitis can occasionally affect the transplanted liver.

Day-to-day management may include:

- Avoiding new medicines or supplements until their liver safety has been reviewed
- Discussing alcohol use with the treating clinician
- Receiving recommended vaccinations, including protection against hepatitis A and B when appropriate
- Eating a balanced diet rather than using unproven "liver detox" products
- Supporting bone health during long-term corticosteroid treatment
- Planning pregnancy with both liver and pregnancy-care specialists

Complications

Ongoing inflammation can lead to fibrosis and eventually cirrhosis. Cirrhosis changes the liver's structure and can reduce its ability to carry out essential tasks.

Possible complications of advanced disease include:

Treatment reduces the risk of progression, but it cannot always reverse established cirrhosis. People with cirrhosis may need additional monitoring, such as checks for enlarged veins and regular liver cancer screening.

Complications can also result from immune-suppressing treatment. These may include infection, bone thinning, changes in blood sugar, and low blood cell counts. Monitoring is intended to detect these concerns early and adjust care when needed.

- Portal hypertension, or increased pressure in the veins that carry blood through the liver
- Enlarged veins in the esophagus or stomach that may bleed
- Ascites and related abdominal infections
- Confusion or sleepiness from hepatic encephalopathy

- Reduced blood clotting and easy bleeding
- Liver failure
- Increased risk of liver cancer in people who develop cirrhosis

Follow up

Follow-up continues even when symptoms improve. Blood tests are usually more frequent when treatment begins or changes. Once the condition is stable, testing may be spaced farther apart based on the clinician's assessment.

Routine visits may review liver enzyme and IgG levels, medicine side effects, blood counts, bone health, vaccination needs, and signs of cirrhosis. Imaging or other tests may be needed if cirrhosis is present. A rising liver enzyme level can signal renewed inflammation before symptoms appear.

Some carefully selected people may discuss a supervised attempt to stop treatment after a sustained period of complete remission. Relapse is common, so this decision requires specialist assessment and continued blood testing. Restarting treatment may be necessary.

Contact the care team promptly for new jaundice, dark urine, persistent vomiting, increasing abdominal or leg swelling, fever, unusual bruising, or a suspected medication reaction. Fever with a swollen or painful abdomen needs urgent assessment.

Call emergency services for vomiting blood, black stools, severe confusion, fainting, breathing difficulty, or inability to stay awake. These are not routine follow-up concerns.

Sources

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