

## Autoimmune Hepatitis

### What is autoimmune hepatitis?

Autoimmune hepatitis is a disease characterized by chronic inflammation of the liver. The best way to describe this disease is to break the term down into its composite words. Autoimmune refers to the body's own immune system attacking another part of the body. Hepatitis refers to inflammation of the liver, which can range from mild to severe. In the vast majority of patients, autoimmune hepatitis is marked by fluctuating levels of intensity, with relapses and remissions.

### What causes this condition?

The exact mechanism whereby the body's own immune system attacks the liver is not yet known. It appears that certain types of white blood cells (the type of blood cell that usually fights infection), in addition to attacking foreign substances (e.g. germs and viruses) misread liver cells as foreign substances and start attacking these cells. The type of damage that follows is known as chronic hepatitis. A number of other conditions can cause identical patterns of liver damage. These include viruses such as hepatitis B and hepatitis C, certain types of drugs, and overload of certain metals such as copper and iron in the liver. There are also much rarer causes of chronic active hepatitis.

### Is it contagious, or are my children at risk of inheriting this disease?

It is absolutely not contagious. It is generally not considered an inherited disease but a tendency to autoimmune diseases may run in some families. That is, children of patients with autoimmune hepatitis may be at slightly increased risk of developing autoimmune diseases of the thyroid or liver or arthritis. The risk, however, is only slightly greater than the normal population and thus genetic counselling is not necessary.

### What are the symptoms of this condition?

In many patients there will be no symptoms at all. The patient will feel perfectly healthy. The condition may be detected on a routine blood test by an elevation in levels of certain enzymes that the liver makes. Other patients may experience fatigue, decreased appetite, drowsiness, or even aches or pains in the muscles or joints. Some patients may notice jaundice or yellowish discoloration of the skin and whites of the eyes as the first symptom.

### What are the other clues to the diagnosis?

Blood tests will almost always reveal elevations of ALT and AST enzymes that the liver makes. In addition, other blood tests will reveal antibodies directed against parts of different cells, such as anti-smooth muscle antibody and antinuclear factor. Your doctor, on examining you, may find abnormalities suggestive of chronic liver disease such



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as a large liver, jaundice, and certain signs noticeable on the skin. Finally, a liver biopsy is usually necessary to confirm the diagnosis.

## **What is a liver biopsy?**

A liver biopsy involves passing a small hollow-core needle into the liver after appropriate freezing with local anaesthetic. There is a very small risk of bleeding from the biopsy and some modest discomfort associated with this procedure, but it is generally well tolerated by the vast majority of patients.

## **What is the treatment for autoimmune hepatitis?**

Some patients with very mild or inactive disease may not need any type of active treatment. When active drug treatment is needed, corticosteroids are the treatment of first choice. Corticosteroids are completely different from anabolic steroids used to build muscle mass. Corticosteroids such as prednisone are potent anti-inflammatory drugs which will reduce inflammation in all sites, including the liver. Your doctor may choose in addition to, or in place of corticosteroids, other drugs with anti-inflammatory activity, such as azathioprine, mycophenolate mofetil or methotrexate. All these anti-inflammatory drugs have some side effects which your doctor will explain to you in detail.

Approximately 90% of patients require some form of treatment (usually azathioprine) to maintain remission after the steroids have reduced the initial inflammation. About 10% do not require any maintenance therapy and remain in remission with no symptoms and no active inflammation in the liver, for many years. Due to the variable intensity of the disease, even with maintenance treatment, patients may suffer from relapses of inflammation periodically. Such relapses are usually treated by a temporary course of steroids.

## **What about alternative or complementary therapies?**

No alternative or complementary therapies have been shown to be effective in treating autoimmune hepatitis. In particular, milk thistle or its active ingredient, silymarin, has been studied, and has no beneficial effect. Standard treatments such as prednisone have been proven to delay or prevent progression to cirrhosis and thus save lives. It is ill-advised to delay or not take standard treatments in the hope that alternative remedies may work.

## **Is there a cure for autoimmune hepatitis?**

Not yet. Since we do not know exactly what causes autoimmune hepatitis, we do not yet have a medical cure for the condition. Steroids and other anti-inflammatory drugs can certainly control the inflammation in the majority of cases. However, in certain patients in whom the inflammation continues or who have not been detected and diagnosed until very late in the course, cirrhosis can occur. Cirrhosis is a condition characterized by increased scar tissue that destroys the normal architecture of the liver. Even if cirrhosis occurs, patients who have a mild disease without active inflammation generally do well and can live many years or decades without problems. If



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inflammation continues, the cirrhosis usually worsens, eventually reaching a stage called endstage liver failure. If this stage has been reached, liver transplantation can be used in some patients to successfully treat the condition.

## **Does the disease recur in the new liver after liver transplantation?**

Yes, this can occur but is very uncommon. The drugs used to prevent rejection of the new liver by the body's immune system are the same or similar to those used to treat autoimmune hepatitis so recurrence is usually blocked.

## **Is there anything I can do to help the liver heal itself?**

No, not directly. However, you can help by giving your liver favourable working conditions, by eating a healthy well-balanced diet, not smoking, and drinking alcohol only in modest amounts or abstaining altogether. Obesity may result in fat deposits in the liver and increases the surgical risk with transplantation. Therefore, if you are overweight, strive for a gradual and sustained weight loss. Introduce exercise into your routine: you can enjoy walking, swimming, gardening, stretching. Please remember that a healthy diet and exercise are important components of any weight-loss regimen.

*Reviewed in 2015.*