

MANAGING YOUR HEPTORENAL SYNDROME

What Is Hepatorenal Syndrome?

Hepatorenal syndrome is a group of symptoms due to kidney failure starting in people with advanced liver disease. It's a serious complication of liver cirrhosis and can be life-threatening. This syndrome occurs in up to 10% of people hospitalized with liver failure. It's not contagious and cannot be passed from person to person. It also isn't passed from parents to children. The syndrome occurs in people of all races who have chronic liver disease, equally men and women.

What Causes Hepatorenal Syndrome?

The cause isn't known. One possible cause is drastically lower blood flow to the kidneys caused by certain hormones. The result is blood vessels going to the kidneys being constricted, so kidney failure occurs. Main risk factors include liver cirrhosis, alcoholic hepatitis, acute liver failure, and bacterial peritonitis. Gastrointestinal bleeding and sudden drop in blood pressure caused by medicines, dehydration, or blood loss are contributing factors.

What Are the Symptoms of Hepatorenal Syndrome?

Symptoms include fatigue, feeling ill, nausea, and vomiting. Liver disease causes jaundice (yellow skin), abdominal swelling, leg swelling (edema), weight gain, and changes in mental status (delirium and confusion). Other symptoms are enlarged liver and spleen, muscle wasting, jerking muscle movements, tremors, red color of the palms, and small spider-like veins usually on the upper chest. Kidney failure causes less urine, dark-colored urine, and too much fluid retained in the body.

How Is Hepatorenal Syndrome Diagnosed?

The health care provider makes a diagnosis from the medical history, physical examination, and laboratory tests. Blood tests show low sodium, high blood urea nitrogen, and high creatinine levels. Low blood protein levels and abnormal clotting times may occur. People with mental changes may have a high blood ammonia level due to complications from liver failure.

How Is Hepatorenal Syndrome Treated?

Treatment is difficult and controversial. It aims to improve liver function and make sure that the body has enough blood volume for its organs. First, volume challenges are tried. Fluids are given intravenously to try to increase blood volume and flow to the kidneys. People with ascites may also need to have fluid removal (paracentesis). Ascites is extra fluid in the abdominal cavity. People with cirrhosis and ascites should be very careful about taking new medicines, especially those toxic to kidneys, such as nonsteroidal antiinflammatory drugs.

A medicine called vasopressin may be given to help kidney blood flow. Octreotide plus midodrine, albumin, or dopamine may be given to maintain adequate blood flow. Generally, these drugs are used temporarily to prevent kidney function from getting worse while a liver transplant can be arranged. The only effective treatment of this syndrome is liver transplantation.

DOs and DON'Ts in Managing Hepatorenal Syndrome

- ✓ **DO** understand that the prognosis is grim. The mortality rate is higher than 80%.
- ✓ **DO** remember that as the liver works better, kidneys also improve.
- ⊗ **DON'T** lose hope. The 3-year survival of people who get a liver transplant is nearly 60%.

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FOR MORE INFORMATION

Contact the following sources:

- American Liver Foundation: Tel: 800-465-4837; Web: www.liverfoundation.org
- National Heart, Lung, and Blood Institute Information Center: Phone: 301-592-8573;
Website: www.nhlbi.nih.gov
- National Kidney Foundation: Phone: (800) 622-9010; Web: <http://www.kidney.org>

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