One Blood Type Linked to Higher Risk of Rare Liver Disease

A person’s blood type may up their risk of developing primary biliary cholangitis, a rare autoimmune liver disease.

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A study published in Frontiers found that people with blood group A may have an increased chance of developing autoimmune liver diseases, especially primary biliary cholangitis (PBC), according to News Medical.

The ABO blood group system in humans comprises four blood groups: A, B, AB and O. The current retrospective study investigated the relationship between blood groups and autoimmune liver disease risk.

Autoimmune liver disease occurs when the body’s immune system mistakenly attacks the liver, causing inflammation and damage. PBC and autoimmune hepatitis are among the most common forms of autoimmune liver disease.

PBC results from the destruction of the bile ducts in the liver and primarily affects women. One of the liver’s functions is to produce bile that travels through ducts to the small intestine, where the bile aids in the digestion process.

If these ducts are destroyed, bile builds up in the liver, leading to inflammation and damage, such as scarring. Early symptoms may include fatigue and itching. If left untreated, PBC can lead to liver fibrosis, cirrhosis, liver cancer and the need for a liver transplant.

The study included 114 individuals with autoimmune liver disease and 1,167 healthy individuals. Of those 114, 44 were diagnosed with autoimmune hepatitis, and 70 were diagnosed with PBC.

What's more, the two chronic conditions were most prevalent among people with blood group A, followed by blood groups O, B and AB. Additionally, individuals with blood group B were significantly less susceptible to developing PBC.

The study highlights the link between ABO blood group distribution and the presence of autoimmune liver disease. Researchers encourage the inclusion of ABO blood group analysis in health care settings to identify people who are at a higher risk of developing autoimmune liver disease.

Although there is no cure for PBC, medications can improve liver function and slow fibrosis progression.

In 2024, the Food and Drug Administration (FDA) granted accelerated approval of elafibranor (brand name Iqirvo), a type of treatment for PBC. The approval was supported by results from the Phase III ELATIVE trial (NCT04526665). The same year, Gilead Sciences' seladelpar (brand name Livdelzi) was also granted accelerated approval for PBC treatment in combination with ursodeoxycholic acid.

Two medications were previously approved to treat PBC, ursodeoxycholic acid (Actigall) and obeticholic acid (Ocaliva). Ursodeoxycholic acid often does not relieve itching, however, and obeticholic acid can make it worse. In fact, in December 2024, the FDA issued a safety alert warning of the potential for serious liver injury among people without cirrhosis who use Ocaliva to treat PBC. In some cases, liver injury was serious enough to require a liver transplant or led to death.

To learn more, click #Primary Biliary Cholangitis. There, you'll see headlines such as "American Liver Foundation Announces Government Partnership to Support Veterans With Liver Disease," "RFK Jr. Wants to Delay the Hepatitis B Vaccine. Here's What Parents Need to Know" and "11 Signs of Liver Disease"
