Statins Linked to Lower Risk of Liver Disease Progression

People who used cholesterol-lowering medications had a 40% lower risk for liver disease progression.

June 2, 2023 By Sukanya Charuchandra

Statins—drugs used to reduce cholesterol—are linked to a lower risk for disease progression in people with chronic liver disease that has not yet advanced to cirrhosis, according to study findings published in Clinical Gastroenterology and Hepatology.

Non-alcoholic fatty liver disease (NAFLD) and its more severe form, non-alcoholic steatohepatitis (NASH), are responsible for a growing burden of liver disease worldwide. Over time, fatty liver disease, as well as hepatitis B, hepatitis C, heavy alcohol consumption and other causes, can lead to fibrosis, cirrhosis and liver cancer. Linked to obesity and diabetes, fatty liver disease is increasingly recognized as a metabolic disorder. With no effective approved therapies, management depends on lifestyle changes such as diet, exercise and weight loss.

Researchers are exploring several treatment approaches to improve liver health by targeting metabolic abnormalities. Statins are widely used to reduce low-density lipoprotein, or bad cholesterol, and they also have anti-inflammatory effects. Statins have been shown to reduce the risk for liver cancer recurrence after liver transplantation, but their impact on other liver conditions is less well-established.

Rajani Sharma, MD, of Columbia University Irving Medical Center, and colleagues explored the potential effect of statins on liver disease progression. The team used histopathology data obtained from analyzing diseased liver tissue from a nationwide Swedish cohort.

The analysis included 3,862 statin users with chronic liver disease who had not yet developed cirrhosis. The selected cohort had filled statin prescriptions for at least 30 days. Of these, 45% had NAFLD, 22% had alcohol-related liver disease, 18% had viral hepatitis and 15% had autoimmune hepatitis. Statin users were matched with chronic liver disease patients who did not need a statin.

The researchers followed the cohort for 14 years to see whether chronic liver disease progressed to cirrhosis, liver cancer, liver transplantation or liver-related death. During this period, 6% of statin users progressed to advanced stages of liver disease compared with 7% of those who did not take statins. Statin use was beneficial for people with and without liver fibrosis.

Overall, people taking statins had a 40% lower risk for liver disease progression compared with those who did not use these medications. Statin users were 38% less likely to progress to cirrhosis, 56% less likely to develop liver cancer and 45% less likely to die of a liver-related condition.

The risk of progressing to severe liver disease was 60% lower for people with alcohol-related liver disease and 32% lower for those with NAFLD. But people with viral hepatitis and autoimmune hepatitis did not see a significant reduction in risk.

“Among individuals with non-cirrhotic chronic liver disease, incident statin use was linked to lower rates of severe liver disease, suggesting a potential disease-modifying role,” wrote the researchers. They added that more research is needed to establish how statins appear to slow progression of liver disease.

Click here to read the study abstract in Clinical Gastroenterology and Hepatology.
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