Liver Cancer Risk Falls After Hepatitis C Treatment

However, people with liver cirrhosis remain at risk and should continue screening even after being cured.

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The risk of liver cancer is reduced after successful antiviral therapy for hepatitis C, according to study results published in Gastroenterology. But even after seven years, the risk remains high enough to warrant continued screening for hepatocellular carcinoma in certain groups.

Over years or decades, chronic hepatitis C virus (HCV) can lead to serious complications, including liver cirrhosis, liver cancer and the need for a liver transplant. Treatment with direct-acting antivirals (DAAs) can cure more than 90% of people with hepatitis C, which lowers the risk of hepatocellular carcinoma (HCC), the most common type of liver cancer. However, the risk of liver cancer may persist in people who have already progressed to advanced liver fibrosis or cirrhosis by the time they receive HCV treatment.

George Ioannou, MD, of the Veterans Affairs Puget Sound Health Care System in Seattle, and colleagues previously found that during the first four years after sustained virological response (SVR) to DAA treatment, annual HCC incidence was greater than 2% in people who had cirrhosis before antiviral therapy. The incidence of HCC was more than 1% in people who had severe fibrosis but had not yet progressed to cirrhosis. SVR means an undetectable viral load 12 weeks after completing antiviral treatment, which is considered a cure.

While the annual risk of liver cancer dropped during the first four years after therapy, the follow-up in that study did not last long enough to establish whether the risk declines enough to eliminate continued screening. The American Association for the Study of Liver Diseases recommends that people with cirrhosis should be monitored for HCC using ultrasound scans, with or without blood biomarker testing, every six months.

In a new study, Ioannou and colleagues conducted a longer follow-up of seven years for the same cohort of people cured with antiviral therapy. They sought to understand the annual risk of liver cancer and its relation to cirrhosis and fibrosis scores. Would risk levels fall enough to do away with hepatocellular carcinoma screening?

The researchers analyzed electronic health records for 29,033 veterans with HCV who achieved

SVR between January 2013 and December 2015. Almost all participants were male, 52% were white and the average age was 61 years. Some 44% had alcohol use disorder, 38% had substance use disorder and 29% had diabetes.

Of these participants, 7,533 had cirrhosis prior to receiving antivirals. Among the 21,500 people without pretreatment cirrhosis, 4,682 had high fibrosis scores at baseline. These individuals were followed until December 2021.

Annual incidence rates for liver cancer fell from 3.8% during the first year of follow-up to 1.4% during the seventh year for people with a high fibrosis score who attained SVR. Irrespective of improvements in fibrosis scores following HCV treatment, people with cirrhosis remained more likely to develop liver cancer even after being cured. Over a period of five years, 12.6% of people who had cirrhosis prior to therapy developed liver cancer, compared with only 2.5% of those who did not have cirrhosis.

People with high fibrosis scores, even in the absence of cirrhosis, had a greater incidence of liver cancer than people with lower scores. Moreover, those who lowered their scores after treatment reduced their liver cancer risk to a much greater degree than with those who maintained a high score after therapy.

For individuals with both cirrhosis and high fibrosis scores, the annual HCC incidence ranged between 0.7% and 1.3%, with little to no improvement over time. In these individuals, continued screening for hepatocellular cancer may remain necessary, the study authors concluded.

Click here to read the study abstract in Gastroenterology.
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