Antiviral Treatment Reduces Complications and Death for People With Hepatitis C

People treated with direct-acting antivirals had a lower risk for liver failure and liver cancer as well as much lower mortality.

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Direct-acting antiviral (DAA) therapy reduces both liver-related and nonliver complications and improves survival for people with chronic hepatitis C, underscoring the importance of timely treatment, according to study results published in JAMA Internal Medicine.

“The findings of this retrospective cohort study indicate that DAA treatment for insured patients with chronic hepatitis C was associated with improved liver and nonliver outcomes and, ultimately, with long-term overall survival,” Mindi Nguyen, MD, of Stanford University Medical Center, and colleagues wrote.

Over years or decades, chronic hepatitis C virus (HCV) infection can lead to serious complications, including liver cirrhosis, hepatocellular carcinoma (the most common type of primary liver cancer) and liver decompensation, meaning the liver can no longer carry out its vital functions. Direct-acting antiviral therapy can cure more than 90% of people who receive treatment, but long-term outcomes have not been well characterized.

Nguyen’s team explored the risk of complications and mortality arising from chronic hepatitis C in people receiving DAA therapy. They included data from the Optum Clinformatics Data Mart database on more than 245,000 adults with chronic HCV in the United States who were covered by commercial insurance or Medicare Advantage plans between 2010 to 2021. The average age was approximately 59 years, about 60% were men and just under 60% were white. Within this cohort, 40,654 people had received at least one prescription for DAAs without interferon, while 204,942 remained untreated. Treated individuals were substantially more likely to have cirrhosis (44% versus 29%).

Liver-related complications were less likely in the treated group compared with the untreated group. The incidence of liver decompensation was 28.2 cases per 1,000 person-years in the treated cohort versus 40.8 cases in the untreated cohort. Similarly, the incidence of hepatocellular carcinoma in people with compensated cirrhosis was 20.1 versus 41.8 cases, respectively.

Looking at nonliver outcomes, diabetes was less common in the treated group compared with the untreated group (30.2 versus 37.2 cases per 1,000 person-years), as was chronic kidney disease (31.3 versus 34.1 cases, respectively). All-cause mortality was much lower in the treated group compared with the untreated cohort, with 36.5 versus 64.7 deaths per 1,000 person-years, respectively.

In a multivariate analysis, antiviral therapy was independently associated with a significant drop in the risk of liver decompensation, liver cancer, diabetes, chronic kidney disease, cardiovascular disease, cancers outside the liver and death.

“These findings support the need for continued efforts to promote hepatitis C screening for diagnosis and treatment of chronic hepatitis C before onset of complications to prevent liver and nonliver complications and to lower all-cause mortality,” the study authors concluded. "Because HCV treatment with a DAA regimen is well tolerated for nearly all patients, we believe these findings provide further support for universal HCV treatment coverage for all patients affected by HCV.”

Click here to read the study in JAMA Internal Medicine.
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