In Those With Hepatitis B, Diabetes Linked to Liver Cancer, Risk of Death

An analysis conducted in Taiwan analyzed health outcomes over more than a decade.

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Among people with chronic hepatitis B virus (HBV) infection, diabetes is an independent risk factor predicting a higher risk of hepatocellular carcinoma (HCC, the most common form of liver cancer), liver cancer–related death and death from any cause.

Publishing their findings in the Journal of Viral Hepatology, Rong-Nan Chien, MD, PhD, of the Community Medicine Research Center at the Chang Gung Memorial Hospital in Taiwan, and colleagues conducted an analysis of the medical records of 2,966 Taiwanese people with chronic hep B and diabetes.

In selecting the cohort, the investigators examined data on a pool of 123,466 people in the Longitudinal Cohort of Diabetes Patients to find 2,966 individuals with chronic hepatitis B who were 40 to 90 years old and who were diagnosed with diabetes between January 1 and December 31, 2000. The study authors excluded people who were diagnosed with cancer or HIV prior to that year.

The investigators assembled a comparison cohort of people with HBV who did not have diabetes, relying on the Taiwanese National Health Insurance Research Database. They selected 2,966 people who were matched one-to-one to the diabetes group according to their age, sex, whether they had alcohol-related liver disease and their initial cirrhosis status at the study period's outset.

Those with diabetes had a higher rate of heart attack, congestive heart failure and cardiovascular disease compared with the non-diabetes group.

The study's analysis relied on records of health outcomes among the two cohorts through December 2011, which amounted to a median follow-up time of 11.4 years for both groups. During that time, 701 people in the overall study population (11.8%) developed liver cancer. A total of 731 people (12.3%) died of any cause and 363 people (6.1%) died of liver cancer–related causes.

A total of 13.3% of those with diabetes and 10.0% of those without the health condition developed liver cancer. Additionally, a respective 16.9% and 8.0% of each group died from any cause, and a respective 7.5% and 4.7% died of liver cancer–related causes.

After adjusting the data to account for various differences between the cohort members, including age, sex, cirrhosis status and the presence of alcohol-related liver disease, the researchers found that among people with hep B, diabetes was independently associated with a 35% increased risk of liver cancer. Among those diagnosed with liver cancer, diabetes was associated with a 31% increased risk of death. Overall, diabetes was associated with a 2.32-fold increased risk for death from any cause.

“These findings provide new support for adopting progressive therapy for HCC and strict diabetes control for such patients,” the study authors concluded. “In the future, additional prospective studies may be required to investigate the underlying mechanisms for this result.”

To read the study abstract, click here.

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