Greater NAFLD Severity Linked to Higher Cardiovascular Risk

A meta-analysis found that fatty liver disease was linked to both fatal and nonfatal cardiovascular events.

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The severity of non-alcoholic fatty liver disease (NAFLD), particularly the level of liver fibrosis, was linked to a higher risk of experiencing cardiovascular events, according to results published in The Lancet Gastroenterology & Hepatology.

“These results provide evidence that NAFLD might be an independent risk factor for cardiovascular disease morbidity and mortality,” Alessandro Mantovani, MD, University and Azienda Ospedaliera Universitaria Integrata of Verona, Italy, and colleagues wrote.

Arising from the accumulation of fat in the liver, NAFLD and its more severe form, non-alcoholic steatohepatitis (NASH), are responsible for a growing proportion of advanced liver disease worldwide. As a result of inflammation, NAFLD can lead to the buildup of scar tissue (fibrosis), cirrhosis and even liver cancer. With no effective approved medical therapies, disease management is dependent on lifestyle changes, such as weight loss and exercise.

Previous studies have shown that NAFLD is linked to a higher likelihood of cardiovascular disease, but the degree to which NAFLD severity drives the risk for heart disease was unclear.

Mantovani and colleagues scanned the PubMed, Scopus and Web of Science databases from inception to July 2021 to find observational studies that examined the risk of developing heart diseases in adults with and without NAFLD. To assess the strength of the association between NAFLD and cardiovascular disease, they performed a meta-analysis. The team focused on studies in which NAFLD was diagnosed using the International Classification of Diseases codes or with the help of a liver biopsy or imaging, all in the absence of excessive alcohol consumption. The main clinical outcomes were fatal or nonfatal cardiovascular events.

The researchers included 36 longitudinal studies with data on 5,802,226 people and 99,668 new cases of fatal and nonfatal cardiovascular events over a follow-up period of 6.5 years.

They found that NAFLD was linked to a moderately higher risk of experiencing fatal or nonfatal cardiovascular events. But the risk of a cardiovascular event climbed steeply with an increase in

NAFLD severity and fibrosis stage. These risks were independent of several factors, including age, sex, diabetes and other cardiometabolic factors.

“Health care professionals should be aware that risk of fatal and nonfatal cardiovascular disease events is increased in individuals with NAFLD and that this risk is even greater among those with higher liver fibrosis stage,” wrote the researchers. “These findings call for a more active and systematic search for cardiovascular disease among individuals with NAFLD with a view to potential earlier treatment and referral to a cardiologist.”

Click here to read the study in The Lancet Gastroenterology & Hepatology.

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