NAFLD Screening of People With Type 2 Diabetes Is Cost-Effective

Researchers recommend screening for fatty liver disease within this population.

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Screening for non-alcoholic fatty liver disease (NAFLD) followed by lifestyle modification among people with type 2 diabetes can be cost effective, according to researchers in a study published in Gastroenterology.

NAFLD and its more severe form, non-alcoholic steatohepatitis (NASH), arise from the accumulation of fat in the liver and 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 (advanced scarring) and even liver cancer. Fatty liver disease is increasingly recognized as part of metabolic syndrome, a cluster of conditions including obesity, abnormal blood fat levels and type 2 diabetes. With no effective approved medical therapies, disease management is dependent on lifestyle changes, such as weight loss and exercise.

Currently, the United States Preventive Services Task Force and the American Association for the Study of Liver Diseases offer no recommendations for NAFLD screening. Mazen Noureddin, MD, of Cedars Sinai Medical Center in Los Angeles, and colleagues proposed that screening for NAFLD in people with type 2 diabetes followed by a lifestyle intervention for those with at least moderate fibrosis would be more cost effective than not screening this group.

They used a hypothetical cohort of people age 55 years with type 2 diabetes and developed a model that compared screening and treatment with no such protocol.

The team ran the model using multiple combinations of screening methods. Along with ultrasound imaging, screening included testing for alanine aminotransferase (ALT) or aspartate aminotransferase (AST)—enzymes found in the liver that indicate inflammation and liver damage—as well as liver biopsy and transient elastography imaging to check for fibrosis.

To begin with, people underwent an ultrasound scan with either a test for ALT or AST. If these tests came back positive for NAFLD, the participants underwent further screening with liver biopsies and transient elastography.

At the end of this screening, people found to have NASH with Stage 2 (moderate) or worse fibrosis

were enrolled in a yearlong intensive lifestyle intervention program to help them reach a healthy weight. The researchers also analyzed the effect of treatment with pioglitazone (Actos), a diabetes drug.

Among people who had NASH with Stage 2 or higher fibrosis, the screening and lifestyle intervention was cost effective in comparison with the group that received no screening. These screening procedures were also cost effective when tests for ALT and AST were excluded as well as when pioglitazone was administered.

“Our results indicate the potential value and cost effectiveness of NAFLD screening” in people with type 2 diabetes, wrote the study authors. “Given the increasing burden of NAFLD/NASH and the expected rapid increase in approved medications, we recommend screening patients with type 2 diabetes for NAFLD.”

Click here to read the study in Gastroenterology.

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