Larger Waistline Linked to Increased NAFLD Risk in People With Diabetes

With every centimeter increase in waist circumference, the risk of severe fibrosis rose by 5%.

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A larger waistline was linked to the development of non-alcoholic fatty liver disease (NAFLD) in people with type 2 diabetes, according to findings presented at the Annual Meeting of the European Association for the Study of Diabetes.

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 (advanced scarring) and even liver cancer. With no effective approved medical therapies, disease management is dependent on lifestyle changes such as weight loss and exercise.

Tiphaine Vidal-Trécan, MD, of Lariboisiere Hospital in France, and colleagues studied the potential link between waistline size and NAFLD in 684 people with type 2 diabetes. More than half of the participants (59%) were men, and the average age was 61 years. The average body mass index was 28.7 (considered overweight), and the average waistline measurement was 104 centimeters (about 41 inches).

Between October 2019 and December 2020, NAFLD was diagnosed in 75% of participants using vibration-controlled transient elastography. Some 12% had developed advanced liver fibrosis. The researchers also found that 25% of participants had macrovascular complications of diabetes, like heart disease; 21% had damaged retinal blood vessels; 39% had nerve damage; and 38% had kidney disease.

For every centimeter increase in waistline size, the risk of experiencing advanced fibrosis increased by 5%. Higher levels of the liver enzyme aspartate aminotransferase (AST) were also linked to a higher risk of severe liver fibrosis.

The researchers found that kidney disease was more common in people with advanced fibrosis (52%) compared with people with diabetes alone (36%).

“A large waist circumference is linked to metabolic syndrome and fat accumulation in [the] abdomen, which can lead to NAFLD,” said Vidal-Trécan in a press release. “Doctors treating people

with type 2 diabetes should be aware of these links and check for advanced fibrosis when their waist circumference or level of AST is high.”

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