Weight Loss Surgery Linked to Lower Risk for Liver and Heart Complications

People with fatty liver disease and obesity who underwent bariatric surgery had better clinical outcomes.

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People with both non-alcoholic steatohepatitis (NASH) and obesity who underwent bariatric surgery for weight loss had a reduced risk for advanced liver disease and cardiovascular events, such as heart attack and stroke, according to results published in JAMA.

Arising from the accumulation of fat in the liver, non-alcoholic fatty liver disease (NAFLD) and its more severe form, NASH, are responsible for a growing proportion of advanced liver disease worldwide. Fatty liver disease is often associated with obesity and metabolic conditions such as type 2 diabetes. 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 medications, disease management is dependent on lifestyle changes, such as weight loss and exercise.

“There is currently no [Food and Drug Administration]-approved medication for fatty liver,” Ali Aminian, MD, of the Cleveland Clinic in Ohio, said in a press release. “The striking findings of this study provide strong evidence that bariatric surgery should be considered as an effective therapeutic option for patients with advanced fatty liver and obesity.”

As part of the Surgical Procedures and Long-term Effectiveness in NASH Disease and Obesity Risk (SPLENDOR) study, Aminian and colleagues analyzed the potential link between bariatric surgery and severe liver or cardiovascular outcomes in people with NASH and obesity. Bariatric surgery involves removing or blocking part of the stomach or small intestine, which limits the amount of food a person can eat or reduces absorption of calories.

Adverse liver outcomes included progression to cirrhosis, liver cancer, liver transplantation and liver-related death. Advanced cardiovascular outcomes included a variety of coronary artery events, including unstable angina (chest pain), myocardial infarction (heart attack), cerebrovascular events (stroke), heart failure and cardiovascular death.

This retrospective cohort study included 1,158 people with obesity and biopsy-confirmed NASH who did not yet have cirrhosis; about two thirds were women. Of these, 650 underwent bariatric surgery.

The team found that bariatric surgery was linked to a lower risk for both adverse liver and cardiovascular outcomes. Those who underwent surgery also had greater weight loss (22.4% versus 4.6% of body weight) and a reduction in blood sugar levels.

At the end of the 10-year study period, 2.3% of the surgery group experienced major adverse liver events, compared with 9.6% of those who did not undergo surgery. During the same period, 8.5% in the surgery group and 15.7% in the nonsurgery group experienced major cardiovascular events. By the end of the study period, the researchers noted that bariatric surgery was linked to a much lower risk for adverse liver outcomes (88% reduction) and major cardiovascular outcomes (70% reduction). Four people died within a year of undergoing surgery from related complications.

“The SPLENDOR study shows that in patients with obesity and NASH, substantial and sustained weight loss achieved with bariatric surgery can simultaneously protect the heart and decrease the risk of progression to end-stage liver disease,” Steven Nissen, MD, of the Cleveland Clinic, said in the press release. “This is the first study in the medical field reporting a treatment modality that is associated with decreased risk of major adverse events in patients with biopsy-proven NASH.”

Click here to read the study abstract in JAMA.
Click here for more news about fatty liver disease.
