Lifestyle Changes Improve Liver Health in Children With NAFLD

Intensive lifestyle management led to weight loss and reduced steatosis and fibrosis.

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An intensive lifestyle management program for children and adolescents with non-alcoholic fatty liver disease (NAFLD) greatly reduced fibrosis and liver fat accumulation, according to study findings published in Clinical Gastroenterology and Hepatology.

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 fibrosis, cirrhosis and even liver cancer. With no effective approved medical therapies, management is dependent on lifestyle changes such as weight loss and exercise. But research on lifestyle interventions for children with fatty liver disease has been limited.

Sander Lefere, MD, PhD, of the Liver Research Center at Ghent University in Belgium, and colleagues studied the impact of lifestyle management for children and adolescents with severe obesity. The intensive lifestyle intervention, conducted in a multidisciplinary residential setting, included cutting calories, exercise, guidance on healthy living and psychosocial support. Liver imaging was done at baseline and at six and 12 months into the study to determine the presence of liver fat and fibrosis. Study results were previously presented at the AASLD Liver Meeting.

A total of 204 participants with a median age of 14 years were included in the study. Using ultrasound, NAFLD was identified in 71% of participants; 20% of them had a severe case. More than two thirds had an elevated controlled attenuation parameter (CAP) score indicating fatty liver disease. The CAP score measures the intensity of sound waves as they travel through fatty tissue compared with normal liver tissue. One third had moderate fibrosis (Stage F2), and 10% had a FibroScan value indicating more severe liver scarring.

After six months on the program, 167 participants experienced a median weight loss of 16%. Fibrosis improved in 75% of participants, and fibrosis resolution was predicted by the degree of scarring and liver fat at baseline. A total of 79 participants made it to the one-year mark, and the improvement was sustained. All participants who had fibrosis at baseline experienced fibrosis regression by at least one stage.

“NAFLD and associated fibrosis are highly prevalent in children and adolescents with severe obesity,” wrote the researchers. “An intensive multidisciplinary lifestyle management program that causes significant weight loss not only improves liver steatosis but also fibrosis.”

Click here to read the study abstract in Clinical Gastroenterology and Hepatology.

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