Lean Asians With NAFLD Show Lower Prevalence of Cirrhosis and Heart Disease

On the whole, lean individuals had lower prevalence for these conditions than people with overweight or obesity.

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Lean Asian people with non-alcoholic fatty liver disease (NAFLD) had lower prevalence of cirrhosis, cardiovascular disease and metabolic issues than lean individuals of other races.

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.

While NAFLD is most often linked to obesity, it is also observed in nonobese and lean individuals. There is very little known about the prevalence of cirrhosis in people with NAFLD and normal body mass index (BMI).

Ethan Weinberg, MD, of the University of Pennsylvania, and colleagues compared the prevalence of metabolic, cardiovascular and liver disease in lean individuals with NAFLD with people who are overweight or obese from the TARGET-NASH study. Between August 2016 and March 2019, 3,386 people were recruited for the study from academic medical centers and community practices.

Of the cohort, 12.8% were lean, 27.1% were overweight, 26.5% had class I obesity and 33.7% had class II or III obesity. Compared with the other groups, lean participants were more likely to be Asians.

“We found that Asians were overrepresented among those with normal BMI and NAFLD,” Anna Lok, MD, of the University of Michigan told Healio.

Among lean people, 22.6% had NAFLD cirrhosis. Across the rest of the cohort, 34.4% in the overweight group, 40.1% in the class I obesity group and 45% in the class II or III obesity group had NAFLD cirrhosis. After adjusting for age, sex and center type and site, lean Asians had half the

odds of having NAFLD cirrhosis compared with lean participants of other races.

With regard to cardiovascular disease, the proportion of those with heart disease was 9%, 13.4%, 14.2% and 16.5% in groups with increasing BMI. In the case of diabetes, the values were 32.6%, 43.3%, 51.7% and 63.2% in groups with increasing BMI. Lean individuals had lower levels of enzymes that denote liver function and lower liver stiffness than non-lean individuals.

Thus, lean participants had a lower prevalence of NAFLD cirrhosis, heart disease and metabolic deviation than their non-lean counterparts. Further, lean Asians had even lower prevalence, across all the BMI groups.

“We hope that over time, with a longer duration of follow-up, we can determine whether lean patients have slower rate of progression of liver, cardiovascular and metabolic diseases than those who are overweight or obese and whether the rate of progression among lean Asians is slower than that of lean non-Asians,” Lok told Healio. “We do not know the cause of these differences, but there could be differences in genetics and environmental factors that could be contributing to this.”

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