Fatty Liver Disease Is Less Common but More Severe in Women

While women have a lower risk for NAFLD, once present, the disease advanced more rapidly.

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Women are less likely to develop non- fatty liver disease (NAFLD) than their male counterparts. But women with NAFLD were more likely to progress to non-alcoholic steatohepatitis (NASH) and fibrosis than men with the condition, according to a meta-analysis study published in Clinical Gastroenterology and Hepatology.

“Our findings indicate that once NAFLD is established, the risk of progressive disease (i.e., NASH and advanced fibrosis) is not different and may be slightly higher among women than men,” reported the study authors.

Arising from the accumulation of fat in the liver, NAFLD and its more severe form, 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.

Past reports have suggested a higher prevalence of NAFLD among men and a higher prevalence of NASH among women. “Knowing whether and how gender influences the risk and severity of NAFLD is important for risk stratification [and] risk modification as well as prognostication,” the study authors noted.

To that end, Maya Balakrishnan, MD, of Baylor College of Medicine in Houston, and her colleagues conducted a systematic review and meta-analysis to understand the effect of on the likelihood of being diagnosed with NAFLD and its progression to NASH and fibrosis.

To begin with, they scientific literature from the Medline, Embase and Cochrane Library databases through December 31, 2017, and selected observational studies on NAFLD, NASH and fibrosis.

They analyzed a total of 54 studies with sex-stratified data for the prevalence of NAFLD, NASH and fibrosis in people with biopsy-proven NAFLD. The total sample were 62,239 for NAFLD, 5,438 for NASH and 6,444 for fibrosis.

Among the general population, women had a 19% lower chance of having NAFLD, a comparable risk of NASH and a 37% higher risk of fibrosis when compared with men.

But the inclusion of age as a variable for comparison altered these sex-based disparities. Among women with NAFLD over age 50, NASH prevalence was 17% higher compared with men. Further, these older women also showed a 56% higher chance of having advanced fibrosis than men with NAFLD. On the other hand, the risks for these conditions were not different in any statistically significant way between men and women with NAFLD under age 50.

While the researchers took into account a variety of study parameters, including the demographic characteristic of the study populations, clinical conditions and how NAFLD was diagnosed, the diversity of data and presence of confounding factors in the included studies limits their conclusion. Still, they concluded, “These findings have far-reaching implications for the future burden of liver disease, women’s health and gender disparities in liver disease.”

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

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