Women With Irregular Menstrual Cycles May Have Increased NAFLD Risk

The higher risk for women with longer periods does not appear to be related to obesity.

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Premenopausal women with abnormal menstrual cycles are at greater risk of developing non-alcoholic fatty liver disease (NAFLD). The association grew stronger for women with longer, irregular cycles, according to results published in the Journal of Clinical Endocrinology & Metabolism.

“Our study results show that long or irregular menstrual cycles may be associated with an increased risk of developing NAFLD, and this link was not explained by obesity,” Seungho Ryu, MD, PhD, of Sungkyunkwan University School of Medicine in South Korea, said in a press release.

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. Fatty liver disease is often associated with obesity, diabetes and other metabolic abnormalities. 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.

Prior research has shown that women with irregular periods have a higher risk of type 2 diabetes and heart disease, so Ryu and colleagues explored the potential link between menstrual cycle length and irregularity with NAFLD risk.

For this cross-sectional study, they included 72,092 women younger than 40 years old. Within that group, 51,118 women without NAFLD at baseline were included in the longitudinal analysis. Women with viral hepatitis, a history of liver disease, thyroid dysfunction or heavy alcohol consumption were excluded. Menstrual cycles of 40 or more days as well as those too irregular to calculate were considered long or irregular. The researchers assessed NAFLD status with the help of abdominal ultrasound.

At the beginning of the study, 28% had long or irregular menstrual cycles and 7% had existing NAFLD. Over a follow-up period of 4.4 years, 9% of women developed new fatty liver disease.

The researchers found that long or irregular cycles were positively linked to existing NAFLD. The

risk of NAFLD was 22% higher among women with longer or irregular periods compared with women with regular periods, after adjusting for age, body mass index and other variables. For women with cycles of 40 or more days, the increased risk rose to 49%. The researchers did not find a strong link between increased NAFLD risk and obesity or insulin resistance.

While the mechanisms underlying the link between long or irregular cycles and NAFLD are not known, hormone levels may play a role, the researchers suggested.

“Young women with long or irregular menstrual cycles may benefit from lifestyle changes to reduce the risk of NAFLD as well as other cardiometabolic diseases,” Ryu said in the press release.

Click here to read the study in the Journal of Clinical Endocrinology & Metabolism.

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