

Fatty Liver Disease Common in PCOS Patients

BY DOUG BRUNK
San Diego Bureau

SAN DIEGO — Nonalcoholic fatty liver disease is common in women with polycystic ovary syndrome, regardless of their body mass index, a retrospective analysis of 88 patients has shown.

Although the prevalence of nonalcoholic fatty liver disease in lean women in the general population ranges from 3% to 16%, the prevalence in lean women with polycystic ovary syndrome (PCOS) in this study was 39%.

"We expected [the association], but I think the degree of prevalence is surprising," Sanjiv Kinkhabwala, M.D., of the division of endocrinology, diabetes, and bone diseases at Mount Sinai School of Medicine, New York, reported in a poster session at the annual meeting of the Androgen Excess Society.

He and his associate, Walter Futterweit, M.D., retrospectively evaluated 88 consecutive premenopausal women with PCOS seen between April and November 2004. The patients denied heavy alcohol use and

known liver disease, and all had PCOS. Nonalcoholic fatty liver disease was diagnosed by prospective abdominal ultrasound.

The investigators grouped the women by body mass index (BMI), defining lean as having a BMI of less than 25 kg/m², overweight as 25-29, and obese as 30 or more. The median age of study participants was 31 years, and their median BMI was 27.

Of the 88 women, 48 (55%) had nonalcoholic fatty liver disease. The prevalence of the disease among lean, overweight, and obese patients was 39%, 54%, and 70%, respectively.

Patients with fatty liver disease had higher median BMI, ALT level, insulin resistance (based on premetformin homeostatic assessment), and gamma-glutamyl transferase level, as well as a lower median fasting HDL cholesterol level, compared with women who did not have the disease.

Only 7 of the 48 patients with fatty liver disease (15%) had elevated liver chemistries. "Only checking the liver chemistries is insufficient," he said. "In someone with a BMI of 25, one should do an ultrasound of the abdomen and pelvis." ■

Moderate Exercise Improved Metabolic Profile in PCOS

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SAN DIEGO — Moderate exercise equivalent to a brisk 1-hour walk 4 days a week improved insulin sensitivity in a group of women with polycystic ovary syndrome, even in the absence of weight loss, results from a small trial suggest.

The finding is important because obese women with polycystic ovary syndrome (PCOS) "have often been told to lose weight," Ann J. Brown, M.D., told this newspaper during a poster session at the annual meeting of the Androgen Excess Society. "They know that they need to lose weight, but it's very difficult [for them]. This is a hopeful message that even just picking up the pace of activity will improve your metabolic profile."

For the 5-month study, she and her associates randomized 19 sedentary women aged 22-41 years with PCOS to one of two groups. One group of 11 women continued their sedentary lifestyle, while another group of 8 women participated in a monitored exercise program that equaled about 230

min/wk at 60% maximal oxygen uptake, "the equivalent of a brisk walk," said Dr. Brown of the division of endocrinology, metabolism, and nutrition in the department of medicine at Duke University Medical Center, Durham, N.C.

Study participants completed a 75-g oral glucose tolerance test and a frequently sampled intravenous glucose tolerance test before and after the intervention. The investigators calculated insulin sensitivity and area under the curve (AUC) for glucose and insulin.

At baseline, the women in both groups were similar in age, aerobic fitness level, body mass index, blood pressure, fasting insulin, insulin AUC, and insulin sensitivity. At the end of 5 months, aerobic fitness in the sedentary group worsened by 2.3%, compared with a 4.3% improvement in the exercise group, a statistically significant difference. BMI and waist circumference did not change in either group.

Fasting insulin decreased significantly in the exercise group, compared with the sedentary group (-4.6% vs. +8.9%), as did insulin AUC (-26.0% vs. +1.4%). ■

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