Hyperuricemia in Young Adults Tied To Diabetes Risk; Metabolic syndrome was not a factor.

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Body

PHILADELPHIA - Hyperuricemia in young adults was linked to a significant, roughly twofold increased risk for developing type 2 diabetes during the subsequent 13 years in an observational study with nearly 5,000 participants.

"Hyperuricemia may be a useful marker for predicting type 2 diabetes among young adults," Dr. Eswar Krishnan said at the annual meeting of the American College of Rheumatology.

But Dr. Krishnan cautioned that it is not known whether high serum levels of uric acid play a causal role for developing type 2 diabetes, nor is it known if an intervention can prevent diabetes from developing.

This finding follows a meeting report from Dr. Krishnan earlier this year that hyperuricemia in young adults is also linked with a significantly increased risk for the development of coronary atherosclerosis, a finding made from the same database.

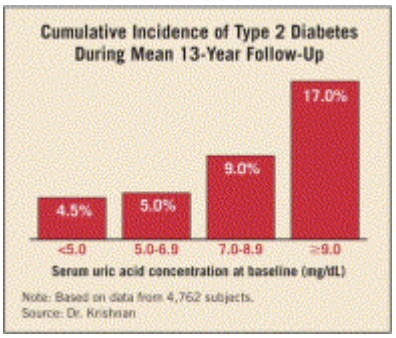
Both analyses used data collected from 5,115 asymptomatic men and women, aged 18-30, in the CARDIA (***Coronary Artery Risk Development in Young Adults***) study. Participants enrolled in four U.S. cities: Birmingham, Ala.; Chicago; Minneapolis; and Oakland, Calif. Half were black (mean age, 25), and none had long-standing risk factors for coronary disease. At baseline their average body mass index was 22 kg/m^2, and they reported moderate regular physical activity.

The new diabetes analysis used data collected during 13 years of follow-up from 4,762 of the subjects. The cumulative incidence of newly diagnosed type 2 diabetes during follow-up ranged from 5% among those with baseline uric acid levels less than 7 mg/dL to 17% among those with a baseline level of 9 mg/dL or higher. (See box.) Type 2 diabetes was diagnosed in patients who had a fasting plasma glucose level of at least 126 mg/dL.

In a multivariate analysis that controlled for baseline variables such as age, sex, ethnicity, family history of diabetes, BMI, physical activity, and blood glucose level, people with a baseline serum uric acid level of 7 mg/dL or greater had a statistically significant, 94% higher risk for developing type 2 diabetes during follow-up, compared with people with a baseline level less than 5 mg/dL, said Dr. Krishnan, a rheumatologist at Stanford (Calif.) University. Only 10 of the more than 4,000 people in the analysis had clinical features at baseline that met the diagnostic criteria for metabolic syndrome.

When these 10 participants were excluded, the relationship between hyperuricemia and diabetes development remained about the same, with a 99% increased risk for incident diabetes in those with a baseline serum uric acid of 7 mg/dL or greater, compared with those with a level of less than 5 mg/dL.

Dr. Krishnan disclosed receiving support and being a consultant to Takeda, which markets febuxostat (Uloric). Some of his study associates are employees of Takeda. Dr. Krishnan also formerly held stock in Savient, which is developing another uric acid–lowering drug.



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