Niacin Curbs Atherosclerosis but Impacts Glucose Metabolism

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NEW YORK (Reuters Health) Dec 03 - Combined data indicate that in patients with normal baseline glucose levels, niacin treatment lowers the odds of coronary stenosis progression and major cardiovascular events -- but boosts the odds of developing impaired fasting glucose.

Niacin is widely used to treat dyslipidemia, and studies show it slows the progression of atherosclerosis and reduces cardiovascular events in patients with established vascular disease, as Dr. Binh An P. Phan of Loyola University Chicago Stritch School of Medicine, Maywood, Illinois and colleagues noted online November 19th in The American Journal of Cardiology.

But along with its well known side effect of flushing, niacin can cause increases in serum glucose levels. That effect has been studied in diabetics, but the implications in patients with normal baseline glucose levels are unclear.

To investigate, the team examined data on 407 subjects with established vascular disease and baseline glucose levels below 100 mg/dL. All had taken part in one of four randomized lipid trials involving active niacin treatment. They were testing a variety of treatments, among them statins and antioxidants with or without niacin.

As expected, niacin-treated subjects showed significantly less change in mean coronary stenosis (0.1% vs 12.0%) and were also less likely to experience major cardiovascular events (8.0% vs 21.0%).

This amounted to a 95% reduction in coronary stenosis progression and 62% reduction in major cardiovascular events.

Within three years, all patients showed a significant increase in fasting glucose levels, but the increase was significantly greater for those who received niacin compared to those who didn't (9.88 vs 4.05 mg/dL).

Overall, 122 subjects (29%) developed impaired fasting glucose. The rate was significantly higher in the niacin treated patients (38% vs 21%). The glucose increase was not associated with the type or dosage of niacin used.

There was no difference in the incidence of new onset diabetes between niacin treated patients and those not receiving the agent (5.6% vs 4.8%), however.

Further subgroup analysis from larger studies may provide further insight, the researchers conclude. Still, they say, "These findings need to be confirmed in large, prospective, randomized trials."

Dr. Phan did not respond to requests for comments.

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