News
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****Cholesterol-lowering B vitamin can be harmful to diabetics

Dallas--Niacin is a popular cholesterol-lowering drug frequently self-administered by people who consider it a harmless B vitamin. But researchers from The University of Texas Southwestern Medical Center report that it can aggravate diabetes and may even induce the disease in borderline diabetics.

Dr. Abhimanyu Garg, assistant professor of internal medicine and clinical nutrition, and Dr. Scott M. Grundy, director of the Center for Human Nutrition, detailed their niacin treatment of 13 patients in the Aug. 8 issue of the Journal of the American Medical Association. It was the first controlled trial using niacin to treat non-insulin-dependent diabetics with abnormal blood cholesterol levels.

The study is important, Garg said, because several best-selling books, which urge self-treatment of high cholesterol with everything from low-fat diets to oat bran, have added megadoses of niacin to their arsenal.

"Although niacin is inexpensive and available over the counter, in large doses it is not a harmless vitamin, free from side effects. Such a free use of niacin as recommended in these books may turn some people into diabetics, especially people with elevated triglyceride levels," he said.

(More)

Two of the more serious side effects of niacin highlighted in Garg and Grundy's study were deterioration of blood sugar control and the development of acute gouty arthritis in susceptible patients.

"This was one of a series of studies we've been conducting to determine the best lipid-lowering therapy for patients with non-insulin-dependent diabetes mellitus (NIDDM), commonly known as adult-onset diabetes," Garg said. "The important thing we have learned is that the choice of lipid-lowering drugs for a diabetic might not be the same as for a non-diabetic patient."

The National Cholesterol Education Program (NCEP) has recommended nicotinic acid, or niacin, as the drug of choice for patients with both high cholesterol and high triglycerides. Since hypertriglyceridemia is the most prevalent lipid, or fat, disorder in non-insulin-dependent diabetics, the NCEP guidelines can be interpreted to favor using niacin to treat high cholesterol and high triglycerides in diabetic patients.

But Garg and Grundy's findings caution against this.

"Previous research has shown that niacin induces insulin resistance in normal subjects," Garg said. "In diabetic patients, it can be harmful. Even in non-diabetic patients with lipid disorders, use of niacin without a physician's advice could be dangerous. If a patient has borderline diabetes that he's not aware of, using niacin may turn him into a full-blown diabetic."

Dyslipidemia, or abnormal blood lipids, is found two to three times more frequently in patients with NIDDM than in the general

population, Garg explained. Diabetics usually have high levels of triglycerides, high levels of very-low-density lipoproteins (VLDL)--the precursors of low-density lipoproteins (LDL), the "bad" cholesterol--and low levels of high-density lipoproteins (HDL), the "good" cholesterol. Dyslipidemia is believed to be a major contributor to coronary heart disease, the leading cause of death in patients with NIDDM.

While niacin therapy in Garg and Grundy's study did reduce the total blood cholesterol level of their patients by 24 percent and increase HDL levels by 34 percent, it significantly deteriorated control of blood sugar.

Another disturbing side effect, Garg said, was that niacin increased blood uric acid levels, a problem that usually leads to gouty arthritis even in normal individuals. Since diabetics are predisposed to develop gout, niacin increased this tendency.

Other drugs besides niacin are available for treating dyslipidemia in patients with NIDDM. Garg suggests that patients with high cholesterol and borderline high triglycerides would best benefit from lovastatin, and those with very high triglycerides would be better treated with gemfibrozil. Further studies are still needed, however, to identify optimum lipid-lowering therapy in diabetes, Garg said.

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