

Lipid Disorders in Diabetes: Good News, Bad News

BY BRUCE JANCIN
Denver Bureau

KEYSTONE, COLO. — Traditional lipid disorders appear to be less common and better managed today in adults with type 1 diabetes than in matched nondiabetic controls.

That's the good news. The bad news is that overall lipid profiles in children and young adults with type 1 diabetes, both in the United States and Europe, are less favorable than in their older counterparts, Dr. Robert H. Eckel said at a conference on the management of diabetes in youth.

The National Cholesterol Education Program has labeled diabetes a coronary heart disease equivalent, meaning a diabetic individual having no history of coronary heart disease is considered to be at the same risk of a major cardiovascular event as a nondiabetic who has already had an acute MI.



Many physicians caring for diabetic adults appear to have heard this NCEP message loud and clear, as illustrated by baseline data from the Coronary Artery Calcium in Type 1 Diabetes (CACTI) study, said Dr. Eckel, professor of medicine, physiology, and biophysics at the University of Colorado, which together with the Children's Diabetes Foundation, Denver, sponsored the conference.

Only about half of dyslipidemic type 1 diabetic CACTI participants knew they had a major, modifiable risk factor for CHD.

DR. ECKEL

CACTI showed the prevalence of dyslipidemia was significantly less in 652 type 1 diabetic men and women than in 764 nondiabetic controls, by a margin of 47% versus 58%. Both diabetic men and women had significantly lower mean levels of total cholesterol, LDL cholesterol, and triglycerides as well as significantly higher HDL cholesterol than controls (Diabetes Care 2005;28:1051-6).

Moreover, 52% of diabetic participants with abnormal lipids were aware of that fact, compared with just 34% of controls. And 36% of the type 1 diabetic subjects

with dyslipidemia were on medication for it—a rate fourfold greater than in dyslipidemic nondiabetic participants in the Denver-based study, in which Dr. Eckel was a coinvestigator. And control of abnormal lipid levels was achieved in 41% of type 1 diabetic subjects on lipid-modifying therapy, compared with just 15% of treated nondiabetic subjects.

Evidence of heightened physician attention to lipids in adults with type 1 diabetes is encouraging, but the CACTI findings require validation in another study. Besides that, only about half of dyslipidemic type 1 diabetic CACTI participants knew they possessed a major modifiable risk factor for CHD, and undertreatment of this high-risk group was common, noted Dr. Eckel, immediate past president of the American Heart Association.

Turning to lipid trends in younger persons with type 1 diabetes, he noted that colleagues at the University of Colorado found dyslipidemia was more common in 682 children with type 1 diabetes than in historical controls. A total cholesterol level in excess of 200 mg/dL was present in 15.4% of the diabetic youths, compared with 11.2% of controls from the National Health and Nutrition Examination Survey. An elevated total cholesterol and/or HDL cholesterol below 35 mg/dL was found in 18.6% of type 1 diabetic children and 16.3% of controls (J. Pediatr. 2005;147:544-6).

A recent "fairly impressive," very large German study paints a more unsettling picture, Dr. Eckel continued. The prevalence of dyslipidemia rose significantly with age in the study population. ■

Lower Blood Pressure, Lipid Levels Can Reduce CVD Risk

BY MITCHEL L. ZOLER
Philadelphia Bureau

NEW YORK — Both blood-pressure control and lipid lowering independently cut the rate of cardiovascular disease events in a post hoc analysis of data collected in a study with about 10,000 patients.

In patients with stable coronary artery disease, lowering serum levels of LDL cholesterol to less than 74 mg/dL, and maintaining systolic blood pressure at levels less than 140 mm Hg, led to the lowest rate of major cardiovascular disease events during a median follow-up of almost 5 years, Dr. John B. Kostis reported at the annual meeting of the American Society of Hypertension.

The analysis also showed no interaction between blood pressure control and lipid lowering. Lipid lowering had a similar effect on the rate of cardiovascular events in patients with either controlled or uncontrolled blood pressure, and controlled pressure reduced events at all serum LDL cholesterol levels, said Dr. Kostis, chairman of medicine at Robert Wood Johnson Medical School, Piscataway, N.J.

The analysis did not find differences in the effects of reduced blood pressure on the basis of the antihypertensive drug classes used.

The data came from the Treating to New Targets (TNT) study, which com-

pared the effect of two daily atorvastatin dosages, 10 mg or 80 mg, in patients with stable coronary artery disease. The main result was that the higher dosage was linked with a 2.2% absolute reduction in cardiovascular events (N. Engl. J. Med. 2005;352:1425-35).

Lipid lowering had a similar effect on the cardiovascular event rate in either controlled or uncontrolled blood pressure.

DR. KOSTIS

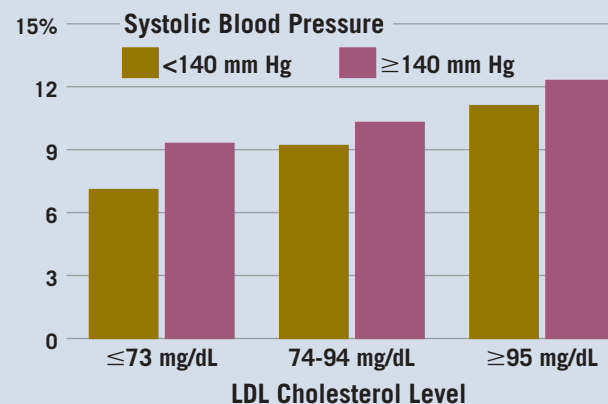
The TNT study was sponsored by Pfizer, which markets atorvastatin (Lipitor). Dr. Kostis is a consultant to, a speaker for, and a grant recipient from Pfizer.

The post hoc analysis examined the interaction of blood pressure and LDL cholesterol. It focused on blood pressure and lipids measured after the first 3 months of treatment. Full data were available for about 9,700 patients.

During almost 5 years of follow-up, the highest rate of major cardiovascular events was 12.3%, in patients in the highest tertile for serum LDL cholesterol—more than 94 mg/dL—and in those with systolic pressure of at least 140 mm Hg. (See chart.) ■



Incidence of Cardiovascular Events By Blood Pressure, Serum LDL



Note: Based on data from 9,700 patients.
Source: Dr. Kostis

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