Coronary Disease Seen in Diabetes Before Age 40

BY MITCHEL L. ZOLER

ATLANTA — Two-thirds of young adults with diabetes who were aged 40 years or younger had significant coronary artery atherosclerosis, on the basis of coronary CT examinations of 130 such patients at one U.S. medical center.

When compared with more than 3,500 similarly aged young adults without diabetes, patients with diabetes also had an adjusted, fourfold increased prevalence of coronary atherosclerosis, Dr. Nikhil Daga and his associates reported in a poster at the annual meeting of the American College of Cardiology.

These findings run counter to current recommendations of the American Diabetes Association, which recommend routinely starting statin treatment of patients with diabetes only in those older than 40 years (Diabetes Care 2010;33:S11-61).

"ADA guidelines should consider statin use in patients aged 40 or younger who exhibit subclinical atherosclerosis to reduce future cardiovascular disease events in this vulnerable population," noted Dr. Daga of Harbor-UCLA Medical Center in Torrance, Calif., and his associates.

The researchers performed coronary CT examinations on 3,711 people aged up to age 40 years, including 130 patients with diabetes and 3,581 people without diabetes. The average age of the entire group was 36 years, and 54% were men.

The study presumed that the presence of any coronary calcium indicated significant atherosclerosis.

The CT examinations revealed a low coronary calcium score of 1-99 in 52% of the patients with diabetes and in 24% of those without diabetes. An intermediate score of 100-399 occurred in 12% of those with diabetes and in 2% of people without diabetes. A high score of 400 or greater occurred in 4% of those with diabetes and in 0.5% of those without diabetes. Overall, 68% of the patients with diabetes had some degree of coronary artery calcification, compared with a 27% prevalence in people without diabetes.

Dr. Daga said that he had no disclosures. Among his associates, the only disclosure was from Dr. Matthew Budoff, who is on the speakers bureau for General Electric, a company that markets CT equipment. ■

Valproate Use For Epilepsy May Prevent MI

ATLANTA — Patients with epilepsy who were treated with valproate had a markedly lower risk of acute MI than the general Danish population in a large case-control study.

This is a particularly intriguing observation in light of a recent report that a diagnosis of epilepsy was associated with nearly a fivefold increased risk of MI during longitudinal follow-up after adjustment for age, gender, and education (Brain 2009;132:2798-804).

The implication of the Danish study is that valproate is an especially attractive antiepileptic therapy, particularly in patients with high levels of the standard cardiovascular risk factors, according to Dr. Jonas B. Olesen of Gentofte University Hospital, Copenhagen.

At the annual scientific session of the American College of Cardiology, Dr. Olesen reported on 9,273 patients with epilepsy who started taking valproate during 1997-2006. Each subject was matched by age and gender with 10 controls.

In a Cox proportional-hazards analysis, valproate-treated epileptic patients had a 20% lower relative risk of MI during follow-up than did controls, but a 46% increased risk of all-cause mortality.

However, upon more extensive adjustment for prior stroke or MI, Charlson Comorbidity Index score, concomitant medications, and socioeconomic status, both groups had similar risk of all-cause mortality. Moreover, this adjustment for background comorbidity and other potential confounders also had the effect of magnifying the apparent impact of valproate on MI risk reduction.

Dr. Olesen indicated that he has no relevant financial relationships.

—Bruce Jancin