Silent Coronary Disease Seen in Many Diabetics

BY PAM HARRISON
Contributing Writer

TORONTO — A large proportion of patients with hypertension and type 2 diabetes also have silent coronary artery disease, according to myocardial perfusion imaging studies presented at the Society of Nuclear Medicine's annual meeting.

Christien Côté, M.D., and colleagues carried out a prospective study to identify the prevalence and severity of silent ischemia in 595 hypertensive patients with and without type 2 diabetes. "We also wanted to establish to what extent type 2 diabetes modified the prevalence and severity of silent CAD in hypertensive patients and to assess the predictive value of risk factors for silent CAD," said Dr. Côté, professor of medicine at Laval University, Quebec City.

Study subjects were 45 years of age and older and had either essential hypertension alone (363) or coexisting diabetes (232). None had a history of typical angina, and there were no differences in age, sex, or duration of hypertension between the two groups. Unlike previous studies, patients were selected for dipyridamole stress testing according to American Diabetes Association guidelines for coronary investigation, said Dr. Côté.

All patients underwent dipyridamole stress 99mTc-sestamibi single-photon emission CT myocardial perfusion imaging (MPI). The images were read by two blinded, experienced observers. Analysis of MPI studies showed 43% of hypertensive diabetic patients had silent CAD, as did 27% of patients with hypertension alone. "There was also a significantly greater extent of reversible ischemia in the diabetic population," Dr. Côté said. MPI studies were also more severely abnormal in hypertensive patients with coexisting diabetes than in hypertensive patients alone.

Investigators also assessed the predictive value of risk factors on the prevalence of silent CAD. In the hypertensive population, only dyspnea was predictive of silent CAD, whereas dyspnea and proteinuria were predictive of the same ischemic defect in the hypertensive diabetic population.

The high prevalence of silent ischemia in hypertensive diabetic patients found in this study is of concern, as asymptomatic patients are unlikely to seek medical attention, and cardiovascular disease events are less likely to be prevented. CAD is the leading cause of morbidity and mortality in hypertensive patients, and their coexistence increases this risk, Dr. Côté said. ■

End-Stage Renal Disease Incidence Drops in Diabetics

Finally, there's some good diabetes news: The incidence of end-stage renal disease in people with the condition dropped between 1997 and 2002, the Centers for Disease Control and Prevention reported.

Data for 1990-2002 obtained from the National Health Interview Survey and the United States Renal Data System reveal trends that vary by age, gender, race/ethnicity, and the time period evaluated during the total 12 years. Although the number of new cases of end-stage renal disease (ESRD) attributed to diabetes mellitus (ESRD-DM) increased overall, the incidence did not increase among blacks, Hispanics, men, and individuals aged 65-74 years and it declined among diabetics aged younger than 65 years, women, and whites (MMWR 2005:54;1097-100).

The age-adjusted incidence of ESRD-DM increased from 247 per 100,000 diabetic individuals in 1990 to 305 in 1996, but declined after that from 293/100,000 in 1997 to 232 in 2002. The magnitude of this decline varied by age group: During 1997-2002, incidence decreased for those aged younger than 65 years, by 28% for those aged younger than 45 years, and by 19% for those aged 45-64 years. Incidence increased by 10% for those aged 75 and older.

During 1990-2002, the age-adjusted incidence was greater among men than women and higher among blacks than whites. During the latter 6 years, the rate decreased among women and among whites, but not among men or blacks.

Reasons for the improvements might include a reduction in the prevalence of cardiovascular disease risks, improved diabetes care practices, or new pharmacologic agents developed to reduce the prevalence of kidney disease risks, according to the CDC.

—Miriam E. Tucker