Silent Ischemia Afflicts Many Hypertensive Diabetic Patients

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 annual meeting of the Society of Nuclear Medicine.

Christien Côté, M.D., and colleagues carried out a prospective study to identify both 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 we wanted 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, observed Dr. Côté.

All patients underwent dipyridamole stress ^{99m}Tc sestamibi single-photon emission CT myocardial perfusion imaging (MPI). Subsequent images were read by two blinded, experienced observers. Analysis of MPI studies revealed that 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.

Myocardial perfusion studies were more severely abnormal in patients with hypertension and coexisting diabetes than with hypertension alone.

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

Previous studies suggested that the prevalence of silent ischemia in hypertensive diabetic patients varied from about 15% to over 50%. 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, as a result, cardiovascular disease events are less likely to be prevented.

CAD is the leading cause of morbidity and mortality in hypertensive patients, and the coexistence of hypertension and type 2 diabetes further increases this risk, Dr. Côté said. ■

Aerobic Fitness Cuts Death Risk by 54% in Hypertensive Women

NASHVILLE, TENN. — Higher cardiorespiratory fitness is associated with lower all-cause mortality in hypertensive women, Carolyn E. Barlow said at the annual meeting of the American College of Sports Medicine.

Ms. Barlow, director of data management at the Cooper Institute, Dallas, presented in a poster the results of an open cohort study of almost 13,000 women who were followed for up to 26 years as part of the Cooper Aerobics Center Longitudinal Study, a prospective observational study of lifestyle and health.

All the women were examined at the Cooper Aerobics Center in Dallas from 1971 to 1998, and followed up yearly for mortality.

At baseline, the women received a comprehensive medical examination and exercise prescription. They also took a treadmill test, which was used to determine their fitness level. The lowest 20% in each age group were considered "unfit," while the upper 80% in each age group were considered "fit." At baseline, their average age was 43 years. Of the cohort, 51% were normotensive, 31% were prehypertensive (120/80 mm Hg), and 18% were hypertensive (140/90 mm Hg or higher).

There were 298 deaths during the study period. After adjustment for age, exam year, and smoking, a trend toward lower mortality risk was seen in fit women compared with unfit women in each blood pressure group, but only in the hypertensive group was the difference statistically significant. Fit hypertensive women were 54% less likely to die than unfit hypertensive women. Compared with the unfit women, the decreased risk of death was 19% for normotensive fit women and 5% for prehypertensive fit women.

—Michele G. Sullivan

Home Monitoring Improved Adherence to BP Therapy

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — New data for the first time support assumptions that home monitoring improves blood pressure control because of better adherence to antihypertensive therapy, Gbenga Ogedegbe, M.D., said at the annual meeting of the American Society of Hypertension.

Previous reports showed better control in hypertensive patients performing home blood pressure monitoring, compared with patients monitored in physicians' offices, and clinicians assumed this was due to better adherence to therapy with home monitoring.

The current data—part of a larger and longer study—came from patients with uncontrolled blood pressure on one or more antihypertensive medications who were randomized to home blood pressure monitoring (118 patients) or usual care in offices (60 patients) for 12 weeks. Investigators assessed adherence to therapy using the well-validated Morisky questionnaire, said Dr. Ogedegbe of Columbia University, New York.

At baseline, 47% of patients in the home monitoring group and 65% in the usual care group reported being adherent to therapy, a difference that was not statistically significant.

In the home monitoring group, the patients took their blood pressure three times per week on average, usually at different times of the day, using a "lifelink" monitoring system that gave them immediate feedback on their blood pressure control (or lack of it) and electronically sent a report to their physicians.

At follow-up 12 weeks later, patients were asked four questions that have been shown to predict the likelihood of blood pressure control: In the past 4 weeks, have you been careless about taking your blood pressure medication? In the past 4 weeks, have you forgotten to take your blood pressure medication? Do you stop taking the medication when you feel better? Do you stop taking the medication when you feel worse, from side effects? Patients who answered "yes" to any of the questions were considered nonadherent to therapy.

In the home monitoring group, 31% went from being nonadherent at baseline to adherent with therapy at 12 weeks, compared with 12% of patients in the usual care group, a significant difference.

Patients in the home monitoring group were less likely to move from adherent to nonadherent (12%), compared with the usual care group (18%). The rest did not change adherence patterns.

The study was not large enough to detect any significant changes in blood pressure, Dr. Ogedegbe said. ■

Brief Screen Takes Just 2 Questions to Identify Depression in Cardiac Patients

BY DIANA MAHONEY
New England Bureau

NEW ORLEANS — A brief, two-question screening instrument is sensitive for identifying depression in patients with coronary heart disease, a study has shown.

Because major depression is associated with adverse outcomes in this patient population, the availability of a quick, effective tool for improving detection and referral rates could improve patient outcomes substantially, David D. McManus, M.D., reported at the annual meeting of the Society of General Internal Medicine.

Using data from the Heart and Soul Study out of the University of California, San Francisco, Dr. McManus and his colleagues compared the test characteristics of four depression case-finding instruments with those of the Diagnostic Interview for Depression in 1,024 adults with stable coronary heart disease (CHD) recruited from San Francisco–area outpatient clinics.

The instruments selected for comparison were the 10-item short form of the Center for Epidemiologic Studies Depression Scale (CES-D), the 9-item Patient Health Questionnaire (PHQ-9), the 2-item Patient Health Questionnaire (PHQ-2), and a brief screen that asks patients about depressed mood and anhedonia.

Specifically, the brief screen asks patients, "During the past month, have you often been bothered by feeling down, depressed, or hopeless?" and "During the past month, have you often been bothered by little interest or pleasure in doing things?" Dr. McManus said. An answer of "yes" to either of these questions was considered a positive screen.

Of the 1,024 study participants, 224 had major depression by standard measure (Diagnostic Interview for Depression). The brief, two-question screen was, at 90%, the most sensitive of the four test measures.

The sensitivity of the CES-D, the PHQ-9, and the PHQ-2 was 76%, 54%, and 39%, respectively. The specificity of the brief screen was 69%, compared with 79%, 90%, and 92% for the CES-D, the PHQ-9, and the PHQ-2.

"The two-question instrument was a sensitive tool for identifying depression in CHD patients from diverse outpatient care settings," Dr. McManus said.

The instrument can be easily integrated into outpatient visits, "even in the busiest cardiology practices," he said. "A negative response to both questions effectively rules out depression, and a positive response to either suggests the patient might benefit from referral or treatment."

The Heart and Soul Study is an ongoing, prospective cohort study designed to determine how psychosocial factors influence disease progression in patients with CHD. Study participants have a mean age of 67 years. ■