

# Imaging Unjustified in Asymptomatic Diabetes

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BOSTON — Screening asymptomatic diabetes patients for myocardial ischemia using advanced imaging does not improve their 5-year prognosis for coronary events, compared with standard care, study results have shown.

In addition, of the 561 type 2 diabetes patients without symptomatic or previously diagnosed coronary artery disease who

underwent screening with stress adenosine myocardial perfusion imaging (MPI) as part of the study, “only 22% had inducible ischemia, which was far less than we expected,” Dr. Frans J. Wackers of Yale University, said at the annual meeting of the American Society of Nuclear Cardiology.

During a mean follow-up of 4.8 years, there was no difference in the rates of cardiac events between patients in the screening group and the 562 patients in the standard care control group, he said, noting

that the cumulative rate of cardiac events for both groups was approximately 3%.

The multicenter study randomized 1,123 patients, aged 55-75 years, with a mean diabetes duration of 8.7 years to MPI single-photon emission computed tomography (SPECT) screening or standard care without screening.

Patients with normal MPI or small MPI defects had 5-year cumulative cardiac event rates of 2.1% and 2.0%, respectively. However, the cumulative rates among

patients with moderate to large MPI defects, as well as those with nonperfusion abnormalities such as ischemic changes on electrocardiogram, were significantly higher, at 12.3% and 6.8%, respectively.

Predictors of cardiac events by Cox regression included male sex, peripheral vascular disease, creatinine level, and abnormal heart rate response to standing.

The findings indicate that clinical events and significant inducible ischemia both identify higher-risk patients with type 2 diabetes, “but overall rates of cardiac events are equivalent whether or not patients underwent initial screening,” said Dr. Wackers, who reported no financial conflicts of interest. ■

## Hyperglycemia, Ethnicity Tied to Cardiac Risk

SAN FRANCISCO — Hyperglycemia and ethnicity each were independently associated with a greater risk for cardiovascular problems in a large, prospective study of 48,444 New Zealanders.

The information came from a New Zealand Ministry of Health program in which primary care physicians across the country were paid to collect and report data on patients with type 2 diabetes who had no history of cardiovascular disease and who were attending free annual visits for their diabetes. The investigators matched the glycemic data with national data on hospital admissions and death records to identify first cardiovascular events (ischemic heart disease, cerebrovascular accident, transient ischemic attack, or peripheral vascular disease), Dr. Paul L. Drury said at the annual scientific sessions of the American Diabetes Association.

During follow-up lasting a median of 2.4 years, 12% of the cohort had a first cardiovascular event. Each 1% increase in hemoglobin A<sub>1c</sub> (HbA<sub>1c</sub>) level was associated with a hazard ratio of 1.08, a statistically significant increase in risk, reported Dr. Drury, clinical director of diabetes services for the Auckland (New Zealand) District Health Board, and his associates. He has been an advisor to Eli Lilly & Co. and to Merck & Co., which make antidiabetes drugs.

The association between HbA<sub>1c</sub> and a first cardiovascular event was significant for both sexes. The results accounted for the effects of age at diagnosis, duration of diabetes, sex, ethnicity, socioeconomic status, smoking, systolic blood pressure, body mass index, the ratio of serum total cholesterol to HDL level, and the urine albumin-creatinine ratio.

Secondary analyses showed that Maori ethnicity was associated with a hazard ratio of 1.3 for developing a cardiovascular event, compared with non-Maori patients, after the researchers controlled for other factors. The study also confirmed the importance of classical risk factors for cardiovascular problems in patients with diabetes.

—Sherry Boschert



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