NT-proBNP May Have Predictive Value in CAD

BY BRUCE JANCIN

SNOWMASS, COLO. — N-terminal pro–brain natriuretic peptide has a largely untapped potential for routine use in the office-based assessment of long-term risk in patients with chronic stable coronary artery disease.

Most physicians are familiar with NT-proBNP mainly as an in-hospital test for risk stratification and targeting therapy in the setting of acute coronary syndrome, but several years ago Danish investigators showed in a large longitudinal study that the cardiac biomarker is also an independent marker of mortality over the next dozen years in patients with stable CAD, Dr. Patrick T. O'Gara noted at a conference sponsored by the American College of Cardiology.

Indeed, NT-proBNP provided prognostic information above and beyond that imparted by the standard cardiovascular risk factors. For example, patients with a baseline NT-proBNP in excess of 455 pg/mL, placing them in the highest quartile, had an adjusted 2.4-fold greater risk of all-cause mortality during a median 9 years follow-up than those in the lowest quartile (a value less than 64 pg/mL).

A fourth-quartile NT-proBNP obtained in the physician's office was a stronger prognostic marker of all-cause mortality than diabetes, which conferred a 1.7-fold increased risk; cigarette smoking, with a 1.6-fold increase; or suspected heart failure, with a 1.8-fold elevated risk. Thus, the Danish findings broaden NT-proBNP's spectrum of clinical usefulness as a prognostic marker from the acute settings of the emergency department and coronary care unit to a population of intermediate-risk outpatients with stable chronic CAD, observed Dr. O'Gara of Brigham and Women's Hospital, Boston.

The study, conducted at the University of Copenhagen, involved 1,034 patients referred for coronary angiography because of signs or symptoms of CAD. During a maximum of 12 years and median of 9 years of follow-up, 288 patients died.

The mechanism underlying the association between NT-proBNP and long-term mortality risk in patients with stable CAD remains unclear. The association was independent of left ventricular ejection fraction and LV end-diastolic pressure, although it is possible that high levels of the biomarker reflect subtle LV remodeling detectable only by MRI or other high-definition imaging methods not employed in this study.

Another hypothesis advanced by the Danish investigators is that myocardial ischemia directly promotes NT-proBNP release (N. Engl. J. Med. 2005;352:666-75).

The Danish study was supported by the Danish Pharmacists Foundation. Dr. O'Gara indicated that he has no relevant financial interests. ■

Ablation for A Fib Trial Recruiting

BY BRUCE JANCIN

SNOWMASS, COLO. — The large multicenter CABANA trial, which is now recruiting, may be the last and best chance to learn if maintaining sinus rhythm confers a survival advantage over rate control in patients with atrial fibrillation.

CABANA (Catheter Ablation Versus Antiarrhythmic Drug Therapy for Atrial Fibrillation) is randomizing roughly 3,000 patients with all types of symptomatic atrial fibrillation—paroxysmal, persistent, and long-standing persistent—to left atrial catheter ablation, antiarrhythmic drug therapy, or rate control medication. The primary end point will be total mortality with at least 2 years of follow-up.

Patients with atrial fibrillation (AF) should be encouraged to enroll in this trial; it's a chance to receive catheter ablation as first-line therapy, should they be randomized to that study arm.

In contrast, current clinical practice is generally to reserve ablation therapy for patients who have failed at least one antiarrhythmic drug, Dr. Roger A. Winkle noted at a conference sponsored by the American College of Cardiology.

Catheter ablation as definitive treatment for AF has evolved over a rela-

tively short time from an experimental procedure to an important therapeutic option that provides cure or significant palliation in the majority of patients, with acceptable complication rates at high-volume centers with experienced providers.

The results are "vastly superior" to antiarrhythmic drug therapy in terms of maintenance of sinus rhythm, improvement in quality of life, and reduction of symptoms. That's why CABANA employs ablation as state-of-the-art rhythm control therapy in a showdown against rate control and antiarrhythmic drugs, explained Dr. Winkle, who is director of electrophysiology at Sequoia Hospital in Redwood City, Calif.

The results are 'vastly superior' to antiarrhythmic drug therapy in terms of sinus rhythm and quality of life.

DR. WINKLE

Theoretically, maintaining sinus rhythm should reduce stroke risk, avoid the side effects of long-term anticoagulation, and improve survival.

However, "all of the studies of rate versus rhythm control with the medications we currently have available have been neutral. It's possible that we can't show a beneficial effect of sinus rhythm because we really don't have agents that keep most people in sinus rhythm. Or alternatively, the current antiarrhythmic drugs and warfarin therapy that we use may cause enough harm to offset the benefits of being in sinus rhythm. We just don't have the answer to that," the cardiologist said.

Secondary end points in the CABANA trial include AF recurrence, stroke, quality of life, and cost effectiveness. The principal investigator is Dr. Douglas L. Packer of the Mayo Clinic, Rochester, Minn. Participating sites are distributed geographically across the United States (www.cabanatrial.org). ■

Disclosures: *The trial is funded by St. Jude Medical, Biosense Webster, and the National Heart, Lung, and Blood Institute. Dr. Winkle reported having no relevant financial interests.*