Troponin T Test May Help Spot Risk in Stable CAD

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CHICAGO — Any detectable plasma cardiac troponin T level in ambulatory patients with stable coronary artery disease is an independent predictor of future cardiovascular events.

"[Troponin T] testing may have potential as a risk-stratifying tool in the management of stable CAD," said Dr. Bill Pei-Chin Hsieh at the annual meeting of the American College of Cardiology. "A positive troponin T [TnT] could be a reason to pursue a more aggressive management strategy."

An elevated cardiac TnT, defined as any measurable level using the commercially available third-generation Roche immuno-

Anxiety Levels Figure Into CAD Outcomes

CHICAGO — Patients with coronary artery disease who experience a declining or even steady level of anxiety over time have a significantly lower risk of nonfatal myocardial infarction or death, compared with those experiencing escalating anxiety, according to a prospective observational cohort study.

The finding doesn't prove cause and effect but does support the hypothesis that a systematic effort to lower the anxiety level of CAD patients with pharmacotherapy and/or psychotherapy may result in improved cardiovascular outcomes—a hypothesis deserving of a definitive randomized, controlled trial, Yinong Young-Xu, Ph.D., said at the annual meeting of the American College of Cardiology.

Dr. Young-Xu, of the Lown Cardiovascular Research Foundation, Brookline, Mass., reported on 516 patients with CAD in an outpatient cardiology clinic whose anxiety level was assessed annually by means of the 92-question self-administered Kellner Symptom Questionnaire. On the basis of their scores, participants were categorized at baseline as having a low, intermediate, or high anxiety level.

During a mean 3.4 years of follow-up, 44 patients had a nonfatal MI and 19 others died. The age-adjusted relative risk of these outcomes was 61% lower in patients whose anxiety level decreased by at least one tertile during follow-up, compared with those who moved into a higher tertile of anxiety. Patients who remained in the same anxiety tertile over the years had a 51% lower risk of the combined end point, compared with those whose anxiety level increased.

In a multivariate analysis adjusted for diabetes, hypertension, cholesterol level, body mass index, education level, alcohol intake, physical activity, ejection fraction, marital status, and other potential confounders, the reduced risk of death or MI in those with a steady or declining anxiety level held true. Prior studies that have linked emotional distress to increased cardiac risks have focused on depression, not anxiety, he noted.

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assay, is not uncommon in stable CAD. Levels of 0.01-0.72 mcg/mL were identified in 6% of 988 patients in the Heart and Soul Study, a National Institutes of Health–sponsored study whose primary aim was to examine psychosocial factors in CAD. Subjects had to have a history of MI or coronary revascularization, angiographic evidence of greater than 50% stenosis in at least one coronary artery, or demonstration of exercise-induced ischemia. Prevalence of the latter, diastolic dysfunction, regional wall mo-

tion abnormalities, elevated C-reactive protein, and other high-risk CAD features was significantly greater in those with detectable TnT, suggesting multiple potential mechanisms for the raised rate of cardiovascular events in TnT-positive patients, Dr. Hsieh of the University of California, San Francisco, said in an interview.

During a mean follow-up of 4.3 years, the combined cardiovascular end point of coronary heart disease death, nonfatal MI, severe arrhythmia, heart failure, and coronary

revascularization occurred in nearly 60% of the TnT-positive group, 3.6-fold greater than in those without detectable TnT. After adjusting for creatinine clearance, baseline exercise-induced myocardial ischemia, and other potential confounders, a positive TnT assay was still associated with a twofold increased risk of the combined end point.

The next step is a confirmatory study in a different cohort with the highly sensitive Roche TnT assay expected to become commercially available soon, Dr. Hsieh said.

