Scoring System Can Predict Cardiac Mortality

BY BETSY BATES
Los Angeles Bureau

LOS ANGELES — High risk findings on myocardial perfusion studies use an immediate telephone call from a nuclear cardiologist to the referring physician, even when the temptation is to perform more tests to clarify the extent of cardiac viability, said Robert C. Hendel, M.D., at a meeting sponsored by the American Society of Nuclear Cardiology.

Dr. Hendel presented the case of a 31-year-old man, 6’4”, 244 pounds, who presented with exertional chest pain. He had a history of radiation therapy for Hodgkin’s disease.

During cardiac function tests, the patient was able to proceed out 4 minutes on the Bruce protocol before he experienced chest pain with ST-segment changes lasting about 15 minutes.

The patient’s nuclear single-photon emission computed tomography (SPECT) images showed significant ischemia and large regions of decreased perfusion. Yet, in the interaction session attended by nuclear cardiologists, just over half of audience members voted that they would respond by immediately calling the referring physician.

Other attendees split their votes among including repeating the SPECT using pharmacologic stress, performing additional imaging to assess viability, or reporting the likelihood of single-vessel disease.

Clearly, those in attendance were influenced by the patient’s young age and the fact that more studies might provide more precise information. According to the study’s findings, combined with the patient’s response to the cardiac function test, should be enough to warrant an immediate consultation with the referring physician, said Dr. Hendel at the meeting, which was cosponsored by the American Society of Nuclear Cardiology and Cedars-Sinai Medical Center.

“This is a very high-risk study,” he said. “Our responsibility is to pick up the phone and communicate that kind of information.”

In the case he presented, consultation with the referring cardiologist led to a referral to coronary angiography. The patient was found to have extensive coronary artery disease, including high-grade narrowings (greater than 95%) in the proximal left anterior descending coronary artery involving the bifurcation of a large first diagonal branch.

“This high-risk anatomy was unsuitable for percutaneous coronary intervention, and he was referred for bypass surgery,” said Dr. Hendel following the meeting.

One week after his SPECT study, the patient underwent five-vessel bypass graft surgery. “He is doing well now, without symptoms,” Dr. Hendel said.

Dr. Hendel, a former president of the American Society of Nuclear Cardiology who practices with Midwest Heart Specialists in Fox River Grove, Ill., said nuclear cardiologists should lower their threshold for immediately conveying ominous test results to referring physicians.

Women Undergoing Angioplasty Can Move to MI at High Risk

BY BETSY BATES
Los Angeles Bureau

ORLANDO — Women undergoing primary angioplasty for acute MI continue to have significantly higher mortality than men, even in the contemporary era of potent antiplatelet therapy regimens and high-pressure stent deployment, according to a large and comprehensive patient series analyzed for the New York State Cardiovascular Angioplasty Reporting System Registry.

In a cohort of 9,013 consecutive MI patients—29% of them women—who underwent primary percutaneous coronary intervention (PCI) in New York state during 1997–2000, unadjusted in-hospital mortality was 6.7% in women and 3.4% in men. Mean hospital length of stay was also significantly greater in women: 6.7 days, compared with 6 days for men, Jeffrey S. Berger, M.D., reported at the annual meeting of the American College of Cardiology.

The composite major adverse cardiovascular event rate—comprising death, emergent coronary artery bypass surgery, catheter-site complications, need for renal dialysis, stroke, abrupt vessel closure, or stent thrombosis—was 10% in women, compared with 5.7% in men, added Dr. Berger of Beth Israel Medical Center, New York.

However, women as a group were at higher risk of complications related to urgent PCI than were men. They were significantly older, by a mean of nearly 7 years. They also had higher prevalences of diabetes, hypertension, and peripheral vascular disease and were more likely to have a history of stroke.

Yet even after adjusting for all of these potential confounders in a multivariate logistic regression analysis, investigators still found female gender remained a strong independent risk factor for adverse outcome, with an associated 42% increased relative risk of in-hospital mortality.

A major caveat regarding the state registry is that the data are not prospectively collected and retrospective, so it’s possible that significant differences between men and women undergoing PCI for MI remain uncontrolled for and unrecognized.