Noncardiac Surgery May Not Require Cardiac Tests

Preoperative testing may result in worse outcomes than no testing.

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — New guidelines for perioperative evaluation and management of cardiac patients undergoing noncardiac surgery are expected to be released in the spring, and they are likely to shift the emphasis from preoperative risk stratification to optimizing medical therapy in order to reduce perioperative complications, Dr. Gabriel Gregoratos said at a meeting sponsored by the California chapter of the American College of Cardiology.

New data have come along to challenge the current guidelines, published by the college and the American Heart Association in 2002, regarding preoperative cardiac testing, preoperative revascularization procedures, and the use of perioperative β-blockers in low-risk patients, said Dr. Gregoratos, professor of medicine at the University of California, San Francisco.

The current guidelines call for those at intermediate risk for perioperative cardiac events to undergo noninvasive assessment of the severity of cardiac ischemia, proceeding to cardiac surgery if the severity is significant. Predictors of intermediate risk in patients with coronary disease include mild angina, a prior MI, compensated or prior heart failure, or diabetes mellitus. Preoperative noninvasive testing also is appropriate, the guidelines say, in patients with poor functional capacity or who are undergoing a high-risk surgery.

Several recent studies, however, suggest that patients who underwent preoperative noninvasive testing to evaluate myocardial ischemia fared worse than those who were not tested, Dr. Gregoratos said at the meeting, also sponsored by the university. One randomized study of 1,476 intermediate-risk patients undergoing vascular surgery found a 2.3% rate of cardiac death or nonfatal MI within 30 days in tested patients, compared with a 1.8% rate in nontested patients (J. Am. Coll. Cardiol. 2006;48:964-9).

The difference between groups was not statistically significant, but "we have to consider why this is happening," he said. "I would suggest that when we submit patients to preoperative testing and then some of them go to revascularization, we are not giving them any benefit, and we may be doing them harm."

Preoperative testing delayed the noncardiac surgery by 3 weeks.

Other data have shown equivocal results on the potential benefit of preoperative coronary artery bypass grafting or percutaneous coronary intervention when performed simply to reduce the risk of complications from noncardiac surgery.

A major randomized study of 510 cardiac patients undergoing elective vascular surgery found no difference in survival at 6 years in those who did or didn't get preoperative revascularization to reduce perioperative risk (N. Engl. J. Med. 2004;351:2795-804). A trend suggested higher mortality in the first year after surgery for patients who were revascularized.

The guidelines already state that the decision to revascularize patients in preparation for noncardiac surgery is appropriate only in a very small subgroup of very high-risk patients. "I suspect that the revised guideline will be even stronger than this statement," Dr. Gregoratos said.

The reductions in perioperative MI or death in cardiac patients given β-blockers around noncardiac surgery seem to benefit mainly patients at high risk for an ischemic event, he said. For patients with a Revised Cardiac Risk Index score of 0, 1 of every 208 patients given perioperative β-blockers will be harmed, a large retrospective study suggests (N. Engl. J. Med. 2005;353:349-61).

In addition, simply giving β-blockers is not enough to benefit intermediate-risk patients. Tight heart rate control is the key. "Patients have to be physiologically β-blocked," he emphasized. ■

Many African American MI Patients Don't See a Physician Regularly

More than two-thirds of African American patients who have suffered a myocardial infarction say the event was a "wake-up call," but a quarter of patients also report that they did not see their physician regularly after the attack, according to a survey released by the National Medical Association.

"Obviously, there's a disconnect here," said Dr. Clyde W. Yancy, medical director of the Heart and Vascular Institute at Baylor University Medical Center in Dallas.

Physicians and researchers need to better understand this contradiction because it's an opportunity to improve outcomes among African American patients, Dr. Yancy said during a teleconference sponsored by the National Medical Association (NMA) and supported by GlaxoSmithKline.

The survey, which was commissioned by the NMA and supported by GlaxoSmithKline, was conducted online among 502 African American adults aged 18 years and older who had experienced a myocardial infarction.

African Americans have a significantly higher risk for virtually every cardiovascular disease than their Caucasian counterparts do, Dr. Yancy said. And when it comes to myocardial infarction, African American men have the highest incidence of first heart attacks, followed by Caucasian men, and closely followed by African American women.

But despite the increased risk, there is a lack of awareness. "The perception is that the African American community is not at risk, particularly for heart attacks," Dr. Yancy said. "Awareness needs to be elevated in a major way."

The NMA survey showed that most respondents saw their myocardial infarction as a significant event, with 64% saying they felt that they had been given a second chance at life, and 46% saying that they were significantly worried about having another heart attack.

However, the survey also found that they were not taking steps to avoid another cardiac event. For example, 22% of respondents reported not taking medication exactly as prescribed and 21% said that they do not monitor their eating habits.

The survey results also revealed that African American patients are in need of increased support in the period following a myocardial infarction. Less than half of respondents (47%) said they had family and friends who remind them to take their medications, and 27% said they did not feel knowledgeable about how to manage their health after an attack.

Part of the problem may come down to socioeconomic factors, Dr. Yancy said. Patients may be neglecting their medications and physician visits because they lack the resources and support.

Other factors include a possible lack of trust of physicians by African American patients, a belief that they have not received the best medicine, and a lack of education about potential side effects. "I've learned that up-front awareness makes a huge difference," Dr. Yancy said.

—Mary Ellen Schneider

Mortality Up in Women With Coronary Syndrome, High LVEF

BY BRUCE JANCIN
Denver Bureau

CHICAGO — Sometimes a woman's heart can be too strong for her own good.

Data from the Global Registry of Acute Coronary Events (GRACE) indicate that elderly women with supernormal left ventricular systolic function as defined by an ejection fraction (EF) greater than 65% at the time they present with an acute coronary syndrome (ACS) have a twofold greater mortality risk than those presenting with a normal EF, Dr. Fadi A. Saab reported at the annual scientific sessions of the American Heart Association.

The highest mortality of all in the GRACE analysis was seen in elderly women with an EF below 55%, as would be expected. Depressed left ventricular systolic function complicating ACS is well established as the most powerful predictor of poor outcome, both during acute hospitalization and at 6 months.

The elevated risk associated with supernormal EFs came as a surprise to the investigators. A plot of in-hospital mortality against EF deciles in the more than 5,100 women over age 65 with ACS in GRACE describes a J-shaped curve with a nadir at an EF of 60%-69%.

"We believe this is the first time this J-shaped association has been described," noted Dr. Saab of the University of Michigan, Ann Arbor.

GRACE is an ongoing Sanofi-Aventis–sponsored observational study at 112 hospitals in 14 countries. An EF below 55% was present in 2,987 elderly female ACS patients in GRACE, a normal EF of 55%-65% was seen in 1,483, and a supernormal EF in 657.

In a multivariate logistic regression analysis adjusted for age, medical history, Killip class at presentation, in-hospital complications such as heart failure or atrial fibrillation, in-hospital management, and medical therapies, an EF greater than 65% was an independent predictor of poor outcomes. It was associated with a 2.4-fold greater risk of in-hospital mortality than in patients with a normal EF, a 2.0-fold greater 6-month mortality, and a 2.5-fold increased risk of cardiac arrest/ventricular fibrillation.

In elderly women, an EF greater than 65% was an independent predictor of poor outcomes.

DR. SAAB

Dr. Saab said one possible explanation for the observed association between supernormal EF and poor outcomes is that elderly women with a hypertrophic heart and a very high EF may be particularly susceptible to oxygen supply–mediated myocardial ischemia, with resultant QT prolongation and an increase in serious arrhythmias, although he was quick to add that this is speculation.

Session cochair Dr. Galen S. Wagner homed in on the fact that the GRACE investigators haven't looked at elderly male ACS patients with supernormal EFs.

"We know that elderly women do badly if their hearts are too strong, but we really don't know what it means when elderly men have hearts that are too strong," observed Dr. Wagner of Duke University, Durham, N.C.

Dr. Saab agreed, adding this will be a future project. They opted to look initially at the impact of supernormal left ventricular systolic function in elderly women because it's known that women with established coronary artery disease have worse outcomes than men—and that's particularly true after age 65. ■