Guarding Against Cardiac Risk

Beta-Blockers *from page 1*

ment [soon] on beta-blocker use. I can't talk about it now, but the ESC guidelines are very well written," he said at the press briefing.

The ESC guidelines call for ideally starting beta-blocker therapy about 1 month before scheduled surgery in selected patients; at a minimum the drug should be started a week before surgery, said Dr. Bernard Iung, a cardiologist at Bichat Hospital in Paris and a coauthor of the new guidelines, during a session on the guidelines at the congress. The recommended regimen uses a selected, beta-1 blocker that lacks intrinsic sympathomimetic activity: either bisoprolol, begun at a 2.5 mg/day, or metoprolol succinate, begun at 50 mg/day. Either drug should be slowly titrated to achieve a resting heart rate of 60-70 bpm with a systolic blood pressure greater than 100 mm Hg. Treatment should continue for more than 1 month following surgery.

The guidelines are the first issued on this topic by the European Society of Cardiology.

DR. POLDERMANS

Beta-blocker therapy before and after surgery is appropriate for patients undergoing high-risk, aortic, major vascular, or peripheral vascular surgery. A beta-blocker also may benefit patients scheduled for intermediate-risk surgery, such as abdominal, carotid, head and neck, and major urologic surgery.

A beta-blocker should not be used in low-risk patients: those without coronary-disease risk factors who undergo low-risk surgery, including breast, dental, endocrine, or eye surgery. Beta-blockers also should be avoided in patients with conventional contraindications: asthma, a severe cardiac conduction disorder, bradycardia, hypotension, or decompensated heart failure, Dr. Iung said.

"Current evidence shows that the use of perioperative beta-blockers reduces the risk of myocardial infarction. However, this does not translate as a net clinical benefit in all patients, possibly because of an increased risk of stroke" linked to beta-blocker use in surgical patients, he said.

The guidelines, which also deal with a variety of other medications, call for treatment with a statin in high-risk patients, also starting 7-30 days before surgery and continuing perioperatively. Statins with a long half-life or extended release are recommended to bridge the immediate postoperative period when oral dosing isn't possible. The guidelines also advise continuing aspirin therapy perioperatively in patients who have been maintained on aspirin. Discontinuation of aspirin during surgery is necessary only for patients in whom hemostasis is difficult to control during surgery.

Dr. Poldermans disclosed receiving research grants from Novartis and Merck & Co. Inc. Dr. Iung has received speakers fees from Edwards Lifesciences and Sanofi-Aventis. ■

Don't Halt Beta-Blockers During Acute Heart Failure

BY BRUCE JANCIN

BARCELONA — The common practice of discontinuing beta-blocker therapy during hospitalization for an acute exacerbation of heart failure is counterproductive, according to a French randomized trial.

"During acute heart failure, beta-blocker therapy should be continued, because this practice is not associated with delayed or lesser improvement and there is a higher rate of chronic beta-blocker therapy 3 months later, the benefits of which are well established," Dr. Guillaume Jondeau concluded in presenting the results of the Beta Blocker Continuation Versus Interruption in Patients With Congestive Heart Failure Hospitalized for a Decompensation Episode (B-CONVINCED) trial at the annual congress of the European Society of Cardiology.

Once beta-blocker therapy has been stopped, it can be a challenge to restart and titrate up effectively.

DR. JONDEAU

B-CONVINCED was conducted to redress the lack of level 1 evidence regarding the best clinical strategy when patients with systolic dysfunction who are on chronic beta-blocker therapy are hospitalized for acute heart failure. Many physicians, reasoning that the acutely failing circulatory system needs adrenergic support, routinely halve the dose or halt the drug altogether. The 2008 ESC guidelines straddle the fence, stating as a class IIA recommendation that "a reduction in the beta-blocker dose may be necessary. In severe situations, temporary discontinuation can be considered."

The primary end point in the 147-patient multicenter B-CONVINCED trial was improvement in both dyspnea and general well-being 3 days into the hospitalization. This was achieved in 93% of the beta-blocker continuation group and 92% of the drug-halt group. After 8 days, 95% of patients in both study arms were significantly improved. Duration of hospital stay, patient self-assessments, and rehospitalization rates during the next 3 months were similar in the two groups.

But 3 months after the acute exacerbation, the proportion of patients on beta-blocker therapy was 90% in the continuation group and 76% in the discontinuation group, a significant difference. Once beta-blocker therapy has been stopped, it can be a challenge to restart and titrate up effectively, observed Dr. Jondeau of the University of Paris.

Discussant Dr. Karl Swedberg noted that B-CONVINCED provides the first randomized clinical trial evidence that sticking to the prehospitalization beta-blocker dose during an acute heart failure exacerbation should be the first-line strategy, said Dr. Swedberg, professor of cardiology at Sahlgrenska University Hospital, Goteborg, Sweden.

B-CONVINCED was funded by the French Ministry of Health. Neither Dr. Jondeau nor Dr. Swedberg disclosed any relationships with industry. ■

HEART Score Predicts Outcomes in Patients With Chest Pain

BY BRUCE JANCIN

BARCELONA — A new scoring system for categorizing patients who present with chest pain to the emergency department proved to be a strong discriminator of acute coronary syndrome and the risk of major adverse cardiac events within 6 weeks in a Dutch multicenter validation study.

The HEART score is designed to be faster, simpler, and more intuitive than the acute coronary syndrome (ACS) risk scoring systems physicians now have, such as TIMI (Thrombolysis In Myocardial Infarction) and GRACE (Global Registry of Acute Coronary Events), Dr. Barbra Backus explained at the annual congress of the European Society of Cardiology.

'Patients with a HEART score of 7 or above should be admitted to the coronary care unit.'

DR. BACKUS

"TIMI and GRACE ignore patient history, and are time consuming and complex," said Dr. Backus of St. Antonius Hospital, Nieuwegein, the Netherlands. "The HEART score is analogous to the Apgar score for newborns. It's easy to use, easy to remember, and easy to communicate," and it takes less than 2 minutes to calculate.

HEART is an acronym for five elements: History, ECG, Age, Risk factors, and Troponin level. Each element is assigned 0-2 points depending on how abnormal it is. This yields a total score ranging from 0 to 10.

A patient who presents with a classic history that's highly suspicious for ischemic chest pain gets 2 points for history; a somewhat suspicious history earns 1, and a nonsuspicious history for coronary heart disease gets 0 points.

Significant ST-segment deviation earns 2 points for the ECG element, nonspecific ECG changes get 1 point, and a normal ECG gets none. Patients get 2 points for being above age 65, 1 for being age 45-65, and 0 for being less than age 45 years. An individual with three or more coronary risk factors or a history of treatment for atherosclerosis gets 2 points for the Risk factor element; a patient with one or two risk factors earns 1 point.

Dr. Backus presented a retrospective validation study involving 910 consecutive patients who presented with chest pain to four Dutch emergency departments; 30 were lost to follow-up.

Overall, 18% of the patients had a major adverse coronary event—acute MI, percutaneous coronary intervention, coronary artery bypass surgery, or death—within 6 weeks. This was the case for just 3 of 303 patients (0.1%) with a HEART score of 0-3, 48 of 413 (12%) with a score of 4-6, and 107 of 164 (65%) with a score of 7 or higher.

The mean HEART score in patients who experienced a cardiac end point was 7.2, significantly more than the mean of 3.8 in individuals who did not.

"We believe it's possible to base clinical decisions on the HEART score. Patients with a HEART score of 0-3 can be discharged from the emergency room immediately. Patients with a score of 4-6 require additional investigation. Patients with a HEART score of 7 or above should be admitted to the coronary care unit," Dr. Backus said.

A prospective multicenter validation study of the HEART score is ongoing. ■