Seize the Motivational Moment

Cardiac Patients *from page 1*

ventions will be more effective when they're timed correctly and they're targeted to the right audience. The more threatened people feel by a condition, the more likely they are to adhere to preventive therapy."

When physicians discuss lifestyle modifications with patients in primary care or chronic care settings, the patients don't feel vulnerable in the same way as when a loved one is hospitalized, she continued.

Dr. Mosca is principal investigator for the ongoing National Institutes of Health–funded Family Intervention Trial for Heart Health (F.I.T. Heart). In the interim analysis reported at the meeting, adherence to the National Cholesterol Education Program's Therapeutic Lifestyle Change diet among 189 family members who went through the intervention climbed from 53% at baseline to 79% at follow-up 6 weeks later. The TLC diet restricts saturated fat to 7% of caloric intake, total fat to less than 30% of calories consumed, and cholesterol intake to 200 mg/day.

Overall, 77% of those who received the intervention showed a significant improvement in their diet score at 6 weeks.

In the next phase of F.I.T. Heart, Dr. Mosca plans to document whether intervening with family members has a beneficial spillover effect on the cardiac patients. Fully 50% of the family members participating in the project are responsible for caring for the heart patient all or most of the time. They're often the ones fixing meals for the whole family. "If we teach them about diet, we think there could potentially be a very important domino effect," she explained.

Here's how the F.I.T. Heart intervention works: When patients enter the hospital with an MI or for a coronary revascularization procedure, they're given a pamphlet explaining the program and inviting family members to attend. The prevention counselors, who are dietitians or health educators, go out onto the floors, introduce themselves, and encourage family members to come by the counseling room for an hour for a cardiovascular risk factor assessment and risk-lowering suggestions.

RENE PEREZ

Dr. Lori Mosca advocates educating the family members of cardiac patients.

"The counseling room has educational materials and food models. It's embedded right in our cardiac floor because we've learned that if it's too far away the family members will be afraid to leave their loved ones," Dr. Mosca said.

There's no charge for the program, which the hospital has been running for 5 years as a community outreach project. "It's a modest amount of resources, and the downstream effect is going to be very important," the cardiologist noted.

The F.I.T. Heart study has documented that family members who provide all or most of a cardiac patient's care had higher levels of cardiovascular risk factors, higher psychosocial strain scores, and more depressive symptoms than did noncaregivers. The fact that caregivers may themselves be at increased risk of heart disease is not surprising, since they share lifestyle factors, and often genes, with the hospitalized patient, Dr. Mosca noted.

Acutely distressed family members are an audience that physicians don't traditionally reach out to with preventive messages. A systematic hospital-based intervention during a time of family crisis—what Dr. Mosca calls the motivational moment—may prove to be a particularly effective way to get the healthy heart message across. ■

CT Coronary Angiography IDs Low-Risk Chest Pain Patients

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

SAN FRANCISCO — Chest pain patients who have a negative CT coronary angiogram can be safely discharged home with an extremely low risk of poor cardiac outcomes at 30 days, Dr. Anne Marie Chang said at the 12th International Conference on Emergency Medicine.

"Prior algorithms have been unable to identify a cohort of patients who have less than a 1% risk of adverse events after discharge," said Dr. Chang, an emergency medicine resident at the Hospital of the University of Pennsylvania, Philadelphia. "While observation units do allow us to identify this low-risk cohort, they require serial cardiac markers, stress testing, and electrocardiograms, which increase the length of stay in the emergency department."

Dr. Chang and her colleagues examined 30-day outcomes in a cohort of 568 patients who received CT coronary angiography (CTA) after admission to the ED for chest pain. Half of the patients (285) received their CTA in the ED, with no cardiac markers required; the rest received the procedure after a stay in the observation unit and two or three sets of negative cardiac markers.

All patients had a score of 0-2 on the Thrombolysis in Myocardial Infarction (TIMI) scale. Most patients were black and female; their mean age was 47 years. Hypertension was present in 44% of patients. In two-thirds of patients, the initial electrocardiogram was normal or nonspecific.

Of the 568 patients, 525 had a negative CTA (no lesion of 70% or greater, and a coronary calcium score of less than 100).

In the group of patients who received CTA while in the ED, 81% were discharged home and 19% were admitted, primarily because of confounding medical problems. Stress tests were performed on 13 patients; 2 had positive results and underwent cardiac catheterization. For both of those patients, the catheterization results matched the CTA results; both were medically managed.

In the group that received CTA after an observation unit stay, 97% were discharged home and 3% were admitted. Five patients underwent a stress test, with one positive result. "This patient had a 60% lesion, which was seen on CTA and catheterization, and he received a cardiac stent," Dr. Chang said at the meeting, which was hosted by the American College of Emergency Physicians.

Patients who receive angiography have fewer repeat ED visits and hospitalizations.

DR. CHANG

Most of the cohort with negative CTA results (90%) were contacted by telephone 30 days after discharge. Follow-up on the remainder was performed by a record review and a review of the National Death Index.

The only death resulted from a motor vehicle accident. There were no cardiac deaths, no acute myocardial infarctions, and no revascularizations within the follow-up period.

In addition to accurately identifying those chest pain patients who can be safely discharged from the ED, CTA can also be used as a post–observation-unit discharge strategy, Dr. Chang said.

Studies also show that, compared with stress testing, patients who receive angiography have fewer repeat ED visits and hospitalizations, higher satisfaction with their care, and a better understanding of their disease, Dr. Chang noted. ■

Preop Statins Improve Cardiac Surgery Outcome

BY MARGOT J. FROMER
Contributing Writer

Preoperative statin therapy reduces the risk of early all-cause mortality for patients undergoing cardiac surgery, according to results of a meta-analysis of 19 studies with more than 30,000 patients.

These results led the authors to "advocate an intensified preoperative statin treatment, followed by a rigorous postoperative reinitiation regimen in hyperlipaemic patients with multiple cardiac risks and coronary heart disease."

This largest meta-analysis to date was undertaken by Dr. Oliver J. Liakopoulos, department of cardiothoracic surgery, University Hospital of Cologne (Germany), and his associates and was published online by the European Heart Journal (doi:10.1093/eurheartj/ehn198).

Statins are known to prevent a variety of cardiovascular events and death by lowering lipids and improving endothelial function. However, less than half of all patients who could benefit from these drugs preoperatively receive them. Evidence suggests that their use in patients undergoing noncardiac surgery improves postoperative outcome, but in cardiac patients, results have not been as straightforward.

Dr. Liakopoulos and associates conducted the meta-analysis with the primary objective of determining if statins reduce early all-cause mortality and decrease major postoperative adverse events, including myocardial infarction, atrial fibrillation, and stroke.

They searched electronic databases and located 19 studies (with 31,725 patients) that met all the eligibility criteria. Of that total, 54.2% were receiving preoperative statin therapy of various types, dosages, regimens, and follow-up periods.

Patients who received preoperative statins had a significantly lower incidence of 30-day all-cause mortality, at 2.2%, compared with controls, at 3.7%, for an absolute risk reduction of 1.5%. The relative risk reduction in the statin-pretreated patients was 43%, a significant difference.

The incidence of myocardial infarction was 4.2% in the pretreated patients 3.9% in control patients, a nonsignificant difference.

Atrial fibrillation, the most common of the studied outcomes, occurred in 24.9% of patients treated with a statin before surgery, compared with 29.2% of patients who were not, for a 4.3% absolute risk reduction and a 33% relative risk reduction, both statistically significant reductions.

The rate of stroke also was significantly lower in the statin-pretreated group, compared with the control patients, at 2.1% and 2.9%, respectively, for a relative risk reduction of 26%.

Patients receiving preoperative statins were more likely to be younger, of male gender, have had previous infarction, be diabetic, and have received a β-blocker or aspirin prior to surgery.

This meta-analysis "adds important evidence that may settle the ongoing controversies arising from previous cardiac surgery trials," wrote the researchers. But it has limitations: an unequal distribution of potentially confounding factors, such as β-blocker and aspirin therapy before surgery, inability to distinguish between lipid-lowering or pleiotropic actions on treatment effects, the high variability of statin dose and treatment regimens, and differences in study quality. ■