Treatment with a sirolimus-eluting stent appeared safe, with stent thrombosis rates of 3.4% throughout all 12 months of follow-up, and 0.3% after the first 30 days following treatment. In the bare-metal stent group, the overall rate of stent thrombosis was 3.6%, which included a 0.6% rate after 30 days. Patients were directed to take aspirin and clopidogrel daily for at least 6 months after stent placement, said Dr. Spaulding.

The study of the paclitaxel-eluting stent (Taxus) was done at two hospitals in the Netherlands. The PASSION (Randomized Comparison of Paclitaxel-Eluting Stent Versus Conventional Stent in ST-Segment Elevation Myocardial Infarction) study did not have any industry support.

During 2003-2004, researchers enrolled patients with symptoms of AMI who had a culprit lesion in a native coronary artery. The primary end point was the combined rate of cardiac death, recurrent MI, or need for target lesion revascularization during the first year of follow-up.

In the 309 patients who received a paclitaxel-eluting stent, the incidence of the end point was 8.7%, compared with 12.6% in the 310 patients who received a bare-metal stent. Although this was a 32% risk reduction associated with the paclitaxel-eluting stent, the difference was not statistically significant, reported Dr. Maurits T. Dirksen, a cardiologist at Onze Lieve Vrouwe Gasthuis Hospital, Amsterdam. In this study, patients treated with the drug-eluting stent had both a 26% reduced rate of death or MI and a 32% reduced rate of need for revascularization.

The 1-year rate of stent thrombosis was 1% in both treatment groups. Stent thrombosis after the first 30 days following treatment occurred in two patients who received paclitaxel-eluting stents and in none of the patients who received bare-metal stents. Patients were directed to remain on aspirin and clopidogrel for at least 6 months after stent placement. ■

3-Vessel CAD: More Stenting Than Surgery

ATLANTA — Since the introduction of drug-eluting stents in the U.S. market in 2003, percutaneous coronary intervention has become the predominant mode of revascularization in patients with non–ST-elevation acute coronary syndromes and triple-vessel disease in community practice, according to fresh national registry data.

Meanwhile, the use of coronary artery bypass graft (CABG) surgery in such patients has declined significantly, although the proportion managed medically has remained steady at one-fourth, Dr. Prospero B. Gogo Jr. reported at the annual meeting of the American College of Cardiology. Many surgeons and interventional cardiologists have suspected as much but Dr. Gogo was able to fill in the big picture by drawing on a large data set.

He analyzed the cases of more than 103,000 patients who presented with non–ST-elevation acute coronary syndromes from January 2002 through June 2005 at the 365 hospitals participating in the CRUSADE quality improvement registry. Of the total, 80% of patients underwent coronary angiography during their index hospitalization, and 25,068 proved to have triple-vessel coronary artery disease.

A particularly interesting observation from the CRUSADE data is the marked temporal shift in the means of revascularization in acute coronary syndromes patients with triple-vessel disease. Before the introduction of drug-eluting stents, the distribution was roughly 50/50. Since the introduction, it has been a very different story. Whereas 49% of such patients revascularized in 2002 underwent coronary artery bypass graft surgery, that proportion had fallen to 40% by the first half of 2005.

In the same period, the use of percutaneous coronary intervention (PCI) in such patients climbed from 51% to 60%. Of these patients, 80% received drug-eluting stents, said Dr. Gogo of the University of Vermont, Burlington.

By using a multivariate logistic regression analysis, Dr. Gogo and his coinvestigator, Dr. Harold L. Dauerman, identified a number of independent predictors suggesting that PCI is being used rather than CABG. For example, they found that patients who were cared for by a cardiologist while they were in the hospital were 51% more likely to undergo PCI than were those who were not under a cardiologist's care. They also found that PCI was used preferentially in patients with a history of previous revascularization, whether by surgery or PCI, and in those with transient ST elevation on their ECG.

Randomized comparative trials of contemporary drug-eluting stents and surgery in patients with triple-vessel disease would help ascertain whether this trend reflects a decrease in the use of complete revascularization in the drug-eluting stent era, said Dr. Dauerman, professor of medicine at the university. CRUSADE is funded by multiple pharmaceutical companies.

—Bruce Jancin