# Triple Therapy Reduces Restenosis After PCI

BY MITCHEL L. ZOLER

NEW ORLEANS — Adding cilostazol to a standard, dual-antiplatelet regimen following the placement of either drug-eluting or bare-metal stents led to less restenosis, late loss, and need for revascularization in a meta-analysis of eight small, randomized trials.

The addition of cilostazol—an inexpensive drug available as a generic formulation—to the standard regimen of aspirin and clopidogrel following percutaneous coronary intervention (PCI) may be "particularly beneficial in patients who are at high risk of restenosis." Adding cilostazol "should undergo further evaluation in large, definitive, randomized controlled trials," Dr. Umesh U. Tamhane and his associates reported in a poster at the annual scientific sessions of the American Heart Association.

Cilostazol is primarily used for treating patients who have peripheral artery disease, noted Dr. Tamhane, a cardiologist at the University of Michigan in Ann Arbor. It recently has been investigated as a treatment for PCI patients because of indications that it can reduce neointimal hyperplasia and smooth muscle–cell proliferation following stent placement, Dr. Tamhane said in an interview.

Adding cilostazol may also be a way to further inhibit platelet aggregation and the risk of thrombosis, another important goal of medical therapy following PCI. Adding a cilostazol regimen of 100 mg b.i.d. to standard dosages of aspirin and clopidogrel in patients who underwent PCI following an acute myocardial infarction led to significantly greater platelet inhibition, compared with both dual-antiplatelet therapy with standard dosages and dual-antiplatelet therapy with a doubled clopidogrel dosage, in a randomized study with 90 patients, reported researchers from South Korea in a second poster presented at the meeting.

Currently, the data supporting cilostazol-based triple therapy are "not robust enough to support routine use, but a case can be made for [using it on] patients who are considered extremely high risk for restenosis," said Dr. Hitinder S. Gurm, director of carotid interventions in cardiovascular medicine at the University of Michigan in Ann Arbor and a coauthor of the meta-analysis presented by Dr. Tamhane.

"I have used triple therapy [aspirin, clopidogrel, and cilostazol] in a handful of patients who were undergoing PCI for restenotic lesions, the patients who usually have the highest risk for restenosis," Dr. Gurm said in an interview. The meta-analysis by Dr. Tamhane, Dr. Gurm, and their associates used a literature search in October 2008 that identified eight randomized, controlled studies reported during 2005-2008 that compared triple therapy with aspirin and clopidogrel. Three studies involved bare-metal stents, and five used drug-eluting stents. The studies together included about 2,600 patients.

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The meta-analysis showed that triple therapy including cilostazol was associated with significant reductions in binary restenosis, late loss, and need for target lesion revascularization during follow-up. Most of the studies had consistent results in favor of triple therapy for all of these end points.

The South Korean study of MI patients who underwent PCI involved 90 evaluable patients, 30 of whom were randomized to 75 mg clopidogrel and 200 mg aspirin daily following PCI. Another 30 patients were treated with 200 mg aspirin and 150 mg clopidogrel daily. The third group received 75 mg clopidogrel and 200 mg aspirin as well as 100 mg cilostazol b.i.d.

The regimen that included cilostazol led to significantly better reductions in platelet aggregation than did the other two regimens tested, reported Dr. Young-Hoon Jeong and his associates from Gyeongsang National University Hospital in Jinju, South Korea. ■