INTERVENTIONAL CARDIOLOGY

Potential benefit of adding cilostazol to antiplatelet therapy after DES implantation

“Although drug-eluting stents (DESs) [are associated with] significantly reduced restenosis, compared with bare-metal stents, restenosis after DES implantation remains a significant clinical problem in long coronary lesions,” comments Seung-Whan Lee from the Asan Medical Center in Seoul, Korea. Dr Lee and colleagues, therefore, embarked on the prospective, randomized, double-blind DECLARE-LONG II trial to assess the benefit of adding cilostazol to standard antiplatelet therapy after implantation of a zotarolimus-eluting stent in this patient group.

The DECLARE-LONG II trial was performed at 10 centers in Korea. In total, 499 patients with stable angina or acute coronary syndrome and a coronary lesion ≥ 25 mm long with a diameter stenosis $\geq 50\%$ and a visual reference diameter of ≥ 2.5 mm were enrolled in the trial. All patients received aspirin (200 mg loading dose and then 200 mg daily indefinitely) and clopidogrel (300 mg loading dose and then 75 mg daily for at least 12 months) from at least 24 h before implantation of a zotarolimus-eluting stent ≥ 30 mm in length. The patients were randomly assigned, in a 1:1 fashion, to also receive a 200 mg loading dose of cilostazol within 1 h after stent implantation and then 100 mg twice daily for at least 8 months, or placebo on the same time schedule.

As assessed using angiography at the 8-month follow-up, in-stent late loss (the primary end point of the study) was lower in the patients who received cilostazol (absolute reduction 0.12 mm, 95% CI 0.02–0.22, $P=0.045$), as were in-segment late loss (absolute reduction 0.15 mm, 95% CI 0.04–0.42, $P=0.006$), and in-stent and in-segment restenosis (relative risk [RR] 0.57, 95% CI 0.35–0.91, $P=0.016$, and RR 0.61, 95% CI 0.39–0.96, $P=0.028$, respectively).

Clinical outcomes were assessed at the 12-month follow-up. Cilostazol was not associated with altered rates of death, myocardial infarction, or stent thrombosis, but was associated with reduced risks for ischemic-driven target-lesion revascularization (RR 0.52, 95% CI 0.27–0.99, $P=0.042$) and target-vessel revascularization (RR 0.50, 95% CI 0.26–0.95, $P=0.029$).

No differences in bleeding complications were observed between the two treatment groups; however, patients receiving cilostazol were more likely to discontinue the drug protocol than patients not taking cilostazol (18.8% versus 12.2%, $P=0.02$), most commonly owing to headache, skin rash or gastrointestinal problems.

The authors acknowledge that future studies need to assess the effectiveness of cilostazol after implantation of other

types of second-generation DESs and in other ethnic groups. Nevertheless, the investigators conclude that adding cilostazol to standard care after DES implantation might improve the efficacy of revascularization in patients considered to be at high risk of restenosis, for example, those with diabetes and those who require bifurcation, small-vessel, long, or ostial stenting.

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Original article Lee, S.-W. *et al.* A randomized, double-blind, multicenter comparison study of triple antiplatelet therapy with dual antiplatelet therapy to reduce restenosis after drug-eluting stent implantation in long coronary lesions: results from the DECLARE-LONG II (Drug-Eluting Stenting Followed by Cilostazol Treatment Reduces Late Restenosis in Patients with Long Coronary Lesions) trial. *J. Am. Coll. Cardiol.* 57, 1264–1270 (2011)