Cilostazol in addition to DAT appears to result in an increase in 24h-HR.

**Conclusions:** Baseline Hemoglobin and Hematocrit In

for the use of cilostazol in patients with tachycardia or a large number of PVCs, when

and total counts of PVCs after DES implantation. Some caution should be exercised

Background: Cilostazol may have a positive chronotropic or pro-arrhythmic effect,

The present study aims to evaluate the impact of hemoglobin and

reactivity to clopidogrel.

hematocrit (H&H) on different assay methods used to test on-treatment platelet

Background: Reactivity to ADP (aspirin and clopidogrel, TAT, n = 1,738; target vessel lesions, LMCA (0.3% and 0%), LAD (51.3% and 43.4%), LCX (18.4% and 18.4%) and RCA (30.0% and 38.2%); de novo lesions, 99.3% and 97.5%; reference vessel diameter, 2.71 mm and 2.58 mm; pre-minimum lumen diameter, 0.81 mm and 0.75 mm; pre%-diameter stenosis, 70.0% and 71.0%; lesion length, 15.7 mm and 16.8 mm; and total stent length, 21.4 mm and 24.4 mm.

Conclusions: Baseline characteristics of both arms were similar. The present study will provide insight into the optimal duration of DAPT after E-ZES implantation. Per-protocol analysis results will be presented at TCT in 2013.

TCT-144

Randomized Comparison Study Assessing the Impact of Cilostazol on Heart Rate

and Arrhythmias by 24-hour Ambulatory Holter Electrocardiographic Monitoring after Drug-Eluting Stent Implantation in Coronary Artery Disease

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Background: Cilostazol may have a positive chronotropic or pro-arrhythmic effect, despite its beneficial effects on vasodilation and antiplatelet aggregation. However, it is unknown whether adjunctive cilostazol can contribute to tachycardia or arrhythmias after drug-eluting stents (DES) implantation. The aim of this study was to determine the impacts of adjunctive cilostazol on 24-hour heart rate and arrhythmias in patients undergoing DES implantation.

Methods: This randomized, multicenter, prospective trial compared triple antiplatelet therapy (aspirin, clopidogrel, and cilostazol; DAT, n = 113) and dual antiplatelet therapy (aspirin and clopidogrel, DAP, n = 114) at baseline and 6-month in patients receiving DES. The primary end points were 24-hour heart rate (24-HR), 24-HR ≥ 70 bpm, and 24-HR increase ≥ 5 bpm at 6-month follow-up using 24-hour Holter electrocardiographic monitoring. Secondary end points were counts or percentages of premature ventricular complex (PVC), nonsustained ventricular tachycardia, sustained ventricular tachycardia, premature atrial complex, and supraventricular tachycardia at 6-month.

Results: The two groups had similar baseline characteristics. At 6-month follow-up, the 24-HR (75.4 ± 11.7 bpm vs. 69.3 ± 10.0 ± 0.001), presence of 24-HR ≥ 70 bpm (71.4% vs. 47.1%, p < 0.001), and presence of 24-HR increase ≥ 5 bpm (44.8% vs. 24.5%, p = 0.002) were significantly higher in the DAT versus DAP group. Multivariable analysis showed that the use of cilostazol (OR: 3.10, 95% CI: 1.08 to 9.30, p < 0.001) and presence of 24H-H in 6-month follow-up (OR: 75.4 ± 70 bpm (OR: 4.60, 95% CI: 1.16-13.14) were strong predictors of 24-HR increase ≥ 5 bpm at follow-up. In addition, 24-hour total counts of PVCs (472 ± 1497 beats vs. 86 ± 209 beats, p = 0.016) was significantly higher in the DAT versus DAP group among the secondary end points.

Conclusions: Cilostazol in addition to DAP appears to result in an increase in 24-HR and total counts of PVCs after DES implantation. Some caution should be exercised for the use of cilostazol in patients with tachycardia or a large number of PVCs when planning DES implantation.

TCT-145

Do Baseline Hemoglobin And Hematocrit Influence The On-Treatment Platelet Reactivity To Clopidoegrade Measured By The VerifyNow P2Y12 Assay?

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Background: It has been well known that the inhibition of platelet aggregation (IPA) by anti-platelet agents was important to reduce the thrombo-embolic events in patients with ST segment elevation myocardial infarction (STEMI). However, the peri-procedural IPA by anti-platelet agents was not well known.

Methods: We compared the peri-procedural IPA between prasugrel and adjunctive cilostazol to dual anti-platelet therapy (Triple anti-platelet therapy; TAP) in patients with STEMI undergoing primary percutaneous coronary intervention (PCI). We prospectively randomized 70 consecutive clopidogrel-naive patients with STEMI planned PCI to either prasugrel [loading dose (LD) 60 mg; 37 patients] or TAP (LD aspirin 300 mg, clopidogrel 600 mg, and cilostazol 200 mg; 33 patients). Primary end points of the study were the platelet reactivity unit (PRU) or % inhibition by the VerifyNow P2Y12 assay at pre-PCI and pre-discharge.

Results: The drug loading to pre-PCI time was similar between prasugrel and TAP groups (25.4 ± 10.42 minutes vs. 25.5 ± 10.56 minutes, p = 0.957). PRU at pre-PCI was significantly lower in prasugrel than in TAP (269.1 ± 173.40; 63.6 ± 18.51% vs. 16.8 ± 17.91%, p < 0.001 respectively). No differences in in-hospital bleeding complications between two groups were observed.

Conclusions: Our study demonstrates that prasugrel could produce a significantly greater peri-procedural as well as in-hospital IPA compared with TAP in patients with STEMI undergoing primary PCI.