

minor bleeding. Odds ratios with credible intervals (OR [CrIs]) were generated with random-effects models to compare outcomes.

Results: This analysis included 18 RCTs with 45,991 patients randomized to cangrelor (n=12,561), clopidogrel (n=22,908), prasugrel (n=3,664), and ticagrelor (n=6,858). Patients had a mean age of 63±10, 74% were male, 73% were hypertensive, 20% had a prior MI, and 82% of patients underwent PCI for acute coronary syndrome. Comparison between the newer P2Y12 therapies with clopidogrel can be found in Figure 1. No significant differences between cangrelor and clopidogrel were found with respect to death (OR 0.78 [95% CrI 0.28–2.22]), cardiovascular death (OR 1.01 [CrI 0.24–4.13]), subsequent MI (OR 0.94 [CrI 0.73–1.20]), stroke (OR 1.11 [CrI 0.25–4.72]), stent thrombosis (OR 0.94 [CrI 0.35–2.67]), major bleeding (OR 0.95 [CrI 0.45–1.89]), and minor bleeding (OR 1.02 [CrI 0.25–3.08]). Rank probability data suggested that ticagrelor and prasugrel were better than cangrelor for reducing ischemic events, though these differences were not significant.

Conclusion: Cangrelor does not significantly reduce the risk of death, cardiovascular death, MI, stroke, stent thrombosis, and major or minor bleeding after PCI compared to clopidogrel, prasugrel, or ticagrelor. Despite rapid platelet inhibition provided by cangrelor, newer oral P2Y12 inhibitors such as ticagrelor and prasugrel have comparable clinical outcomes.

P1848 | BEDSIDE Impact of renal impairment on platelet reactivity and clinical outcomes during chronic dual antiplatelet therapy following coronary stenting

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Abstract

Background: Clinical utilization of dual antiplatelet therapy (DAPT) in patients with renal impairment (RI) following percutaneous coronary interventions (PCI) represents an urgent, unmet need choosing optimal agents, duration of treatment, and potential dose/regimen adjustment. Lack of any large randomized trials specifically in RI patients, and absence of the unimformed clinical data reporting policy clouds the reality. Moreover, triaging RI patients is problematic due to ongoing kidney deterioration, and the fact that RI patients are prone to both vascular occlusions and bleeding.

Methods: 701 Korean patients receiving DAPT with aspirin 100 mg/daily and clopidogrel 75 mg/daily after PCI were prospectively enrolled in the study. Patients were dichotomized into 5 groups according to RI: estimated glomerular filtration rate (eGFR) > 90 mL/min/1.73m² (RI1), 60 - 89 mL/min/1.73m² (RI2), 30 - 59 mL/min/1.73m² (RI3), < 30 mL/min/1.73m² (RI4), and undergoing dialysis (RI5). Major adverse clinical event (MACE) (cardiovascular death, myocardial infarction, stent thrombosis and stroke) were collected for 1 year. Platelet reactivity by VerifyNow™ assay and eGFR were simultaneously assessed at 1 month after maintenance DAPT.

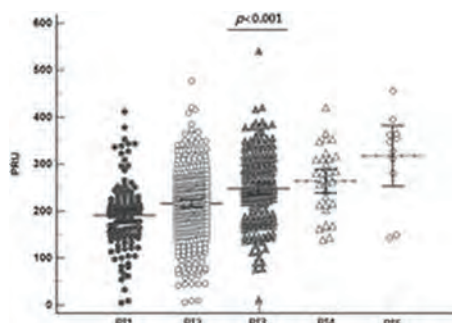


Figure 1. Individual dot plots of platelet reactivity by VerifyNow assay dependent on eGFR. Lines indicate mean ± SD.

Results: Patients with RI exhibited gradual significant increase of residual platelet reactivity during DAPT, dependent on eGFR deterioration [191±72PRU (RI1) vs. 216±78PRU (RI2) vs. 248±80PRU (RI3) vs. 264±70PRU (RI4) vs. 317±96PRU (RI5), p<0.001] being the highest in the dialysis group. Declined eGFR has been gradually associated with advancing age (OR=1.03, 95% CI: 1.00–1.05; p=0.032), female gender (OR=1.7, 95% CI: 1.1–2.5; p=0.01), diminished smoking rates (OR=0.6, 95% CI: 0.37–1.00; p=0.05), hypertension (OR=1.8, 95% CI: 1.3–2.5; p<0.001); diabetes (OR=1.5, 95% CI: 1.1–2.1; p=0.007), and MACE (HR=13.9; CI: 1.6–124.3; p=0.02 for RI4; and (HR=31.9; CI: 2.9–351.9; p=0.005 for dialysis), but not for bleeding (p=0.143). MACE risks still remained significant for RI4 (p=0.027), and RI5 (0.002) by multivariate Cox hazard regression estimates.

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P1849 | BEDSIDE

Pre-treatment with potent P2Y12 receptor inhibitors is associated with reduced in-hospital mortality in a real world setting of primary percutaneous coronary intervention

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Purpose: To investigate the effect of P2Y12 receptor inhibitor pre-treatment in a real world setting of primary PCI (pPCI) after the implementation of prasugrel and ticagrelor.

Methods: 6325 consecutively enrolled patients from a nationwide registry undergoing pPCI between 2011 and 2014 were grouped according to P2Y12 inhibitor treatment start into an early (start before the PCI centre, n=3538), an intermediate (start at the PCI centre, n=1939) and a late group (start at time of PCI or later, n=848). Multiple logistic regression analysis including major confounders was used to investigate the effect of pre-treatment on in-hospital mortality.

Results: Regardless of the P2Y12 inhibitor used for pre-treatment (prasugrel 34%, ticagrelor 17%, clopidogrel 49%), multivariable analysis showed a strong association of early treatment start with reduced in-hospital mortality (OR 0.62 95% CI 0.41–0.95). Intermediate treatment initiation was associated with a comparable, borderline significant improvement (OR 0.64 95% CI 0.40–1.01).

Conclusion: Pre-treatment of P2Y12 inhibitors is associated with reduced in-hospital mortality in a large real-world setting of pPCI even when using prasugrel or ticagrelor. These data support the recommendation of an early start with P2Y12 inhibition in STEMI.

STABLE ANGINA – TREATMENT AND OUTCOMES

P1850 | BEDSIDE

Statins for the prevention of early postoperative cognitive dysfunction in patients undergoing coronary artery bypass grafting

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Purpose: To evaluate the effect of perioperative statin therapy on the incidence of early postoperative cognitive dysfunction (POCD) in patients undergoing coronary artery bypass grafting (CABG).

Methods: Cognitive performance was analyzed in 110 male patients (the mean age 56.3±5.5 years) who underwent CABG between 2009 and 2011. All patients were randomized to two groups: the study group (n=70) received rosuvastatin, 20 mg daily, and the control group (n=40) didn't receive any statins. Both groups were comparable by all clinical and demographic data. All patients underwent on-pump CABG. The duration of cardiopulmonary bypass was 95.5±18.2 minutes. Attention was assessed in all patients with the Bourdon's test. Visual short-term memory was assessed with 10 words memorizing test, and 10 numbers memorizing test. Moreover, all patients underwent neuropsychological testing using the automated complex software (Status PF). Complex visual-motor reaction (CVMR), level of functional mobility of nervous processes (FMNP) and nervous processing capability (NPC) were measured. Cognitive functioning was assessed prior to randomization, then at day 2 prior to CABG, and at days 7–10 after CABG. The statistical analysis was conducted using "Statistica 8.0". The presence of POCD was estimated on the basis of criteria defined as a 20% decline on 20% of the tests.

Results: Neurodynamic parameters before randomization did not differ between the groups. Rosuvastatin-treated patients at days 7–10 after CABG demonstrated an increase of reaction time for CVMR tests (p=0.005), missed fewer signals for FMNP tests (p=0.03), processed more symbols over 4 minutes of the Bourdon's test (p=0.005) and recalled more words (p=0.008) compared to patients without rosuvastatin treatment. The individual analysis of neurodynamic parameters reported the development of POCD in 81% of patients in the control group, and in 55% in the study group.

Conclusion: Preoperative rosuvastatin treatment (20 mg daily) reduces the incidence of early POCD in patients undergoing on-pump CABG, suggesting its positive neuroprotective effect.

P1851 | BEDSIDE

Temporal trends in management and long-term prognosis of patients with stable angina between 2006 and 2012

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Background: Changes in the guidelines on management in patients (pts.) with stable angina (SA) prompt to continuous monitoring of the results of treatment in this population in the routine clinical practice.

Aim: Analysis of temporal trends in clinical characteristics, treatment, early and long-term outcomes in pts. with SA.

Methods: Data of 9,380 pts. from the PRESAGE Registry were analyzed. In brief,