stable coronary artery disease (CAD) patients by comparing the results to an established, validated laboratory-based genotyping method.

Methods: 74 stable CAD patients on clop 75 mg daily were tested by clinical nurses with a healthy volunteer sample. Genotyping was performed using a Illumina® 350 BeadChip. Pharmacodynamic (PD) exposure to clop's active metabolite (AM) was measured and platelet reactivity (PR) was assessed with the VerifyNow™/P2Y12 system (PRU) and VASP (PRI) assays.

Results: AM exposure (H11005) did not differ between the two platforms in measuring the same marker data. The VPC299 genetic test identified EM and RM phenotypes based on 11 gene variants with high accuracy and predicted a reduced platelet inhibition in response to clop. A rapid, reliable VPC299 genetic test could serve pharmacogenetic testing feasible for all patients.

TCT-726 Residual Platelet Reactivity Threshold After Clopidogrel Loading Dose To Predict Long-term Clinical Outcome in Patients with Acute Coronary Syndrome: Insights from the RECLOSE2-ACS Study Renato Valenti1, Rossella Marcucci1, Angela Migliorini2, Anna Maria Gori1, Guido Parodi1, Bettina Giusti1, nazzario carrabba1, Rita Panici2, Rosanna Abba2, Davide Antonucci2
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Background: There is no consensus concerning the usefulness of routine assessment of in vitro platelet reactivity for recognition of clopidogrel nonresponders, or the method or methods that allow reliable assessment of residual platelet reactivity, and for each method the threshold of platelet aggregation inhibition that should be used in clinical practice.

Methods: The study includes 1,789 acute coronary syndrome (ACS) patients receiving an invasive treatment and for whom platelet reactivity after a 600 mg clopidogrel loading was prospectively assessed by light transmittance aggregometry (LTA). The primary end point of the study was a composite of cardiac death, myocardial infarction, any urgent coronary revascularization, and stroke (MACE) at 2 years. The secondary end point was cardiac mortality. The sensitivity and specificity of platelet reactivity to predict both end points were calculated in a ROC curve analysis. The “optimal” cutoff value was defined by the highest Youden index value and compared with the predefined cutoff of 70% used in the study and corresponding to the 90th percentile value derived from an healthy volunteer sample.

Results: By ROC analysis 63% resulted the optimal cutoff value to predict both MACE and cardiac death at 2 years of follow-up. A significant sensitivity improvement for the ROC-based cutoff value was revealed (32%; p=0.003). The incidence of clopidogrel nonresponders changed from 14% with the cutoff of 70% to 28% with the ROC-based cutoff. However, the increased sensitivity was reached at the price of a lower specificity and accuracy. The latter with the cutoff of 70% was 81% for MACE and 84% for cardiac death, while with the cutoff of 65% the predictive accuracy was 73% and 75%, respectively. The AUCs were nearly identical with the 2 cutoffs both for MACE (0.71; 95% CI 0.69-0.73) and cardiac death (0.79; 95% CI 0.77-0.81).

The cutoff of 70% as compared to the ROC-based of 63% allows the identification of a subset of patients at very high risk of cardiac death in only 14% of the studied population, making the ADP LAT test more acceptable in clinical practice for the identification of subjects at risk.

TCT-727 Discontinuation of Long-term Clopidogrel Therapy is Associated with Death and Myocardial Infarction after Saphenous Vein Graft Percutaneous Coronary Intervention Amit Sachdeva1, Sumali Bativetsy1, Gerald Beckham2, Albert Shen3, Vicken Aharonian4, Prakash Mansukhani1, Gregg Stone2, Martin Leon3, Jeffrey Moses5, Naing Moore6, Ric Hyett1, Richard Contreras5, Somjit Brar1
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Background: The timing and incidence of adverse events by different durations of clopidogrel therapy after SVG PCI remain unknown. The primary objective of this study was to investigate the risk associated with cessation of long-term clopidogrel therapy after SVG PCI.

Methods: This is a cohort study of patients undergoing SVG PCI from 2000-2009 followed for death or MI after stopping clopidogrel. A piecewise exponential survival distribution was used to generate adjusted incidence rate ratios comparing the 0-90 day and 91-365 days intervals after clopidogrel cessation. A multivariate Cox regression model was constructed to obtain risk-adjusted instantaneous incidence rates using kernel hazard functions.