Conclusions: The reduction of ApoB/A-I ratio during follow-up may predict favorable outcomes. The aim of this study was to assess the influence of the reduction of ApoB/A-I ratio, the surrogate of plaque regression, on the outcomes after percutaneous coronary intervention (PCI) in patients acute myocardial infarction (AMI). Methods: Between November 2005 to September 2007, we measured serum lip(a). ApoB and Apo-A-I level on admission and six-month follow-up in 1,014 consecutive AMI patients (63.7±12.4 years, 723 men). We divided patients into two groups according to ApoB/A-I ratio reduction (PR Group [plaque regression group]; ApoB/A-I ratio on admission ≥ 6-month follow-up, non-PR Group [non-plaque regression group]; ApoB/A-I ratio on admission ≤ 6-month follow-up). Results: There were more men in PR Group (78.0% vs. 65.2%, p=0.188) but, no significant differences in age between groups. Particularly, non-PR group showed better left ventricular ejection fraction than PR group (56.2±11.1 vs. 57.3±14.3 %, p=0.003). There was a trend toward more TIMI 0 flows in PR Group (66.1% vs. 55.5%, p=0.057), while more TIMI 3 flows were observed (26.3% vs. 40.3%, p=0.018) in non-PR Group. CK (1354.1±2529.1 U/L, p=0.003) and CK-MB level (93.5±104.6 vs. 104.4±131.5 U/L, p=0.010) were higher in non-PR Group than PR Group. Methods: A comprehensive prospective regional STEMI program database was queried from 4/03 to 12/11. We sought to determine contemporary outcomes of STEMI patients with prior CABG in a large, prospective, regional STEMI system. Results: Of 3552 consecutive STEMI patients, 250 (7.1%) had prior CABG. In these 250 patients, the culprit vessel was the SVG in 81 (32%), a native vessel in 90 (40%) and there was no clear culprit in 57 (23%). No patients had a LIMA as a culprit. Patients with prior CABG were older, more likely to be male and have diabetes and less likely to be current smokers. The prior CABG patients had lower EF and were less likely to have an intervention. In the prior CABG patients, a SVG culprit was more likely to present with chest pain only (p=0.08) and increased in-hospital and 30 day mortality (p=0.08) in the SVG-culprit group which narrowed at one year. In patients with a SVG culprit, absence of intervention conferred a greater risk of mortality up to one year (40% vs. 8.5%, p<0.005). Conclusions: In a large, prospective regional STEMI system with a PCI based reperfusion strategy, patients with prior CABG and a SVG culprit have similar outcomes despite being having prior CABG. Prior data have suggested worse outcomes in this group, but this may have reflected lower rates of PCI in patients with SVG culprit.

**TCT-526**

Is There Sufficient Evidence To Discourage The Use Of Multi-Vessel Angioplasty During STEMI? An Analysis of 35,008 Patients

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Background: Guidelines discourage multi-vessel angioplasty at the time of ST elevation myocardial infarction. This was apparently confirmed by a meta-analysis of predominantly registry data (Vlayer et al. J Am Coll Cardiol. 2011; 58(7):692-703). However, the results of this analysis may have been exposed to the inherent allocation bias within registries; if registry clinicians preferentially allocated STEMI patients with a higher risk of mortality to multi-vessel angioplasty, the mortality of this therapy would appear unfairly increased leading to misleading conclusions.

Methods: The 10 studies in the VI라 analysis comparing culprit only to multi-vessel PCI (35018 patients, 96% of the ‘non-network’ analysis by VI라 et al, 4 registries excluded due to insufficient data) were re-analysed to determine if higher risk patients were more likely to be allocated to multi-vessel PCI. A weighted random effects meta-regression was performed to determine if biased allocation of high risk patients could explain the difference in mortality between the two therapies (STATA Corp, Texas, USA).

Results: We demonstrate that higher risk patients are more likely to be allocated to multi-vessel PCI (pooled OR 0.80, 95% CI 0.69-0.92); furthermore when we adjust for this difference in higher risk patient allocation across the studies there is no mortality difference between culprit only and multi-vessel angioplasty at the time of STEMI (adjusted OR 0.86, 95% CI 0.51-1.46).

Conclusions: Our findings highlight the limitations of using registry data for comparative efficacy research and suggest multi-vessel angioplasty at the time of STEMI should not be discouraged on the basis of current data. An adequately powered randomised controlled trial (RCT) should be performed to answer this question.

**TCT-527**

Contemporary Outcomes of ST-elevation Myocardial in Patients with Prior Bypass Graft

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Background: ST-elevation myocardial infarction (STEMI) patients with prior coronary artery bypass graft (CABG) have been reported to have worse outcomes but the majority of data comes from the thrombolysis era.

Methods: A comprehensive prospective regional STEMI program database was queried from 4/03 to 12/11. We sought to determine contemporary outcomes of STEMI patients with prior CABG in a large, prospective, regional STEMI system.

Results: Of 3552 consecutive STEMI patients, 250 (7.1%) had prior CABG. In these 250 patients, the culprit vessel was the SVG in 81 (32%), a native vessel in 90 (40%) and there was no clear culprit in 57 (23%). No patients had a LIMA as a culprit. Patients with prior CABG were older, more likely to be male and have diabetes and less likely to be current smokers. The prior CABG patients had lower EF and were less likely to have an intervention. In the prior CABG patients, a SVG culprit was more likely to present with chest pain only (p=0.08) and increased in-hospital and 30 day mortality (p=0.08) in the SVG-culprit group which narrowed at one year. In patients with a SVG culprit, absence of intervention conferred a greater risk of mortality up to one year (40% vs. 8.5%, p<0.005).

Conclusions: In a large, prospective regional STEMI system with a PCI based reperfusion strategy, patients with prior CABG and a SVG culprit have similar outcomes despite being having prior CABG. Prior data have suggested worse outcomes in this group, but this may have reflected lower rates of PCI in patients with SVG culprit.