1102-22 Persistently Elevated Levels of Soluble CD40 Ligand One Month After Percutaneous Coronary Angioplasty Correlate With Six-Month Restenosis

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Background. Balloon angioplasty (BA) induces an early inflammatory reaction and periprocedural CRP correlates with late restenosis.The aim of the current study was to characterize the type and duration of inflammatory reaction after BA, and to identify more specific inflammatory markers correlating with restenosis. **Methods.**We studied 56 consecutive patients (pts) with stable coronary artery disease who underwent successful BA. Blood was drawn just before BA, at 1-month, and at 6-month follow-up. We evaluated CD40 ligand (sCD40L), vascular cell adhesion molecule-1 (VCAM-1), and matrix metalloproteinase-2 (MMP-2). All pts underwent 6-month follow-up angiography. **Results.** Levels of both sCD40L and MMP-2 increased from pre-PTCA to 1 month, and decreased between 1 month and 6 months (Table). Plasma levels of sCD40L at 1-month correlated with angiographic late loss (r -0.48, p=0.001). A receiver operating characteristic (ROC) curve showed that sCD40L was a good predictor of 6-month dichotomous angiographic restenosis (area under curve 0.75, 95% CI 0.61-0.88), with a cutpoint of 4.0 ng/l or more having a sensitivity and specificity of 0.78 and 0.72. **Conclusions.** Our results imply that inflammation persists for at least 1 month after BA. This suggest that anti-inflammatory interventions to prevent restenosis should be active for more than 1 month post BA. The predictive value of sCD40L may indicate the relevance of this pathway as a therapeutic target for restenosis prevention.

Serum Levels of Inflammatory Markers After BA

	pre-BA	1 month F-up	6-month F-up	p value
sCD40L	4.1±0.6	5.8±0.6	4.2±0.6	p<0.02
sMMP-2	1133.8±38.6	1326.1±38.8	1163.1±38.8	<0.0001
sVCAM-1	995.2±67.3	1044.7±67.	1064.7±67.5	0.07
hs-CRP	5.1±10.9	3.5±3.6	3.3±3.8	ns

1102-23 Biochemical Markers of Myocardial Injury in Patients With Stable Angina Pectoris Undergoing Successful PTCA: Clinical Importance?

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Objective To evaluate the importance of increases in biochemical markers in patients with stable angina pectoris (SAP)undergoing successful elective (PTCA) concerning clinical usefulness and prognostic value

Methods 544 consecutive patients with SAP undergoing elective successful PTCA according to ACC/AHA guidelines. We measured the concentration of CKMBmass, troponin T (TnT), 3 different troponin I's and CKMB and CKtotal activity. Bloodsampling prePTCA, 8 and 16 hours after PTCA.

Results Number of stenoses treated per patient median 1.45 (range 1-4). Biochemical marker positive and median (range) as given in the table. At 1 month the total events were 1.6% (9/544), all nine events were UAP. At 3 months the total events were 3.7 % (20/544) with 2 cardiac death, 1 AMI, 17 UAP. At 6 months the total events were increased to 6.1 % with 3 cardiac deaths, 3 AMI, 27 UAP.

			Events % (cardiac death, AMI,rePTCA, CABG,readm.UAP)					
			1 month		3months		6months	
Marker	Cut-off values	Positive >(median (range))	Positive	negative	Positive	negative	Positive	negative
CKMBmass	10.0 ng/mL	8.8% (27.5 (10.4-114))	4,2	1,4	12,5**	2,8	20,1**	4,6
TnT	0.10 ng/mL	8.5% (0.28 (0.1 -3.08))	2,2	1,6	10,9*	3,0	19,6**	4,8
TnI-Beckm.	0.5 ng/mL	15.7% (1.09 (0.54-100))	1,2	1,8	1,2	3,1	11,9*	5,1
TnI-Ortho	1.0 ng/mL	8.8% (2.19 (1.01-100))	2,1	1,6	8,5#	3,2	17,0**	5,1
TnI-Dade	1.5 ng/mL	10.1% (1.5 (1.5-37.8))	1,9	1,7	9,3*	3,1	16,7**	5,0
CK	200 U/L	4.5% (314 (209-986))	4,2	1,6	16,6*	3,6	25,0**	5,3
CKMBact	24 U/L	3.3% (62 (30 - 122))	5,6	1,5	16,7*	3,3	27,7**	5,4

*p< 0.05 , **p <0.01 # p=0.09

Conclusion The incidence of CKMBmass and troponin is app. 10%. At 3 and 6 months follow-up CKMBmass, TnT, TnI-D, CK and CKMBcat. markerpositive patients had a significant increased risk of UAP and repeated revascularisation, however the figures for deaths and AMI's were low.

1102-24 Myocardial Necrosis Is Halved in Patients Undergoing Elective Percutaneous Coronary Intervention Who Are Pretreated With Lipid-Lowering Therapy

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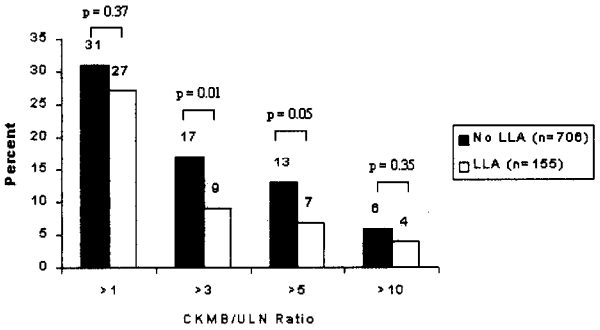
Background: Myocardial necrosis occurs commonly after percutaneous coronary intervention (PCI) and has been associated with increased long-term morbidity and mortality. Lipid-lowering agents (LLA) exert multiple effects that might reduce the incidence of myocardial necrosis after PCI, including plaque stabilization, inhibition of platelet thrombus formation and improvement in endothelial function. Nevertheless, it is not known whether LLA treatment before PCI is associated with less subsequent myocardial necrosis.
Methods: We compared the incidence of myocardial necrosis after elective PCI among patients in the EPIC trial who were (n=155) or were not (n=706) on a LLA prior to their procedure. A propensity analysis was used to match patients on the probability of treatment with a LLA prior to their PCI.
Results: Overall, 16% of patients had post-procedure myocardial necrosis (CK-MB >= 3X ULN). LLA pre-treatment was associated with significantly less myocardial necrosis (9 vs. 17%, Risk Ratio [RR] = 0.49, 95% CI 0.28-0.82, p=0.006) [Figure]. After adjusting for other potential confounders and the propensity score, LLA pre-treatment was associated with significantly less myocardial necrosis (RR = 0.51, 95% CI 0.25-0.97), p = 0.039).
Conclusion: Myocardial necrosis was half as likely when patients were on a LLA before elective PCI. Randomized data would help determine whether elective PCI should be deferred until after the initiation of lipid-lowering therapy.



1102-25 Effect of Pre-Procedure Lipid Lowering Therapy on In Hospital Mortality Following Percutaneous Coronary Interventions: An Analysis of a Large Multicenter Database

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Background: Recent studies have shown a reduction in early mortality in patients with acute coronary syndromes discharged home on lipid lowering therapy. The objective of our study was to determine the potential effect of pre-procedure lipid lowering therapy with statins on in-hospital mortality in patients undergoing percutaneous coronary interventions (PCI).

Methods: We analyzed 16,932 PCI performed between July 1997 and September 2000 in a consortium of 8 hospitals in Michigan. In-hospital mortality rates in patients who were on lipid lowering therapy before the procedure (n=9,084) were compared with those of patients who were not (n=7,848). The effect of pre-procedure lipid lowering therapy was analyzed using multivariate logistic regression analysis.

Results: The in-hospital mortality rate was 0.58% in the group of patients who were on lipid lowering therapy before the index procedure and 2.8% in the group of patients who were not (OR 0.2, 95% CI 0.14-0.24, p<0.001). After adjustment for baseline comorbidities, demographic variables, indication for the procedure, severity of underlying coronary disease, and for a propensity score for being on lipid lowering therapy, lipid lowering therapy remained a strong independent predictor of lower in-hospital mortality (Adjusted OR 0.31, 95% CI 0.27-0.44).

Conclusion: 1) Pre procedure lipid lowering therapy is associated with a significant reduction of in hospital mortality following PCI. 2) Although the possibility of bias from other unknown confounders cannot be excluded, the strong association between pre-procedure lipid lowering therapy and reduced mortality warrants further investigations in other registry and prospective studies.

1102-26 Adrenomedullin as a Predictor of Restenosis and Antiintimal Proliferative Hormone in the Patients With Coronary Intervention

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[Background]: Adrenomedullin (AM) is a vasoactive hormone which is mainly produced in arterial endothelial cells especially in the coronary arterial system. It was reported that in patients with acute myocardial infarction and congestive heart failure, plasma AM was increased. It was also revealed that AM inhibits proliferation and migration of vascular