Conclusion: In addition to the predictive value of hsCRP, concentrations of IL-1 beta significantly and independently predicted a step-wise increase in the risk of death or MI. The mechanism for CAD risk associated with IL-1 beta independent of IL-6 and hsCRP is unknown but suggests complex in vivo regulatory networks. Larger studies are needed to confirm this finding and to evaluate its implications.

9:00 a.m.

841-3 The Combination of Troponin and CRP Levels at Admission: A Strong Prognostic Indicator of One-Year Mortality in Both Men and Women With Unstable Coronary Artery Disease

Stefan K. James, Paul Armstrong, Rob Califf, Agneta Siegbahn, Maarten Simoons, Lars Wallentin, the GUSTO-IV trialists, *Thoraxcenter, Uppsala, Sweden.*

Background: In acute coronary syndrome (ACS) inflammatory activity and myocardial damage as indicated by elevation of the C-reactive protein (CRP) and Troponin T(TnT) levels are associated with an impaired clinical outcome.
Methods: The GUSTO IV ACS trial, evaluating the efficacy of abciximab as the primary medical treatment in ACS without early revascularization, included 7800 patients with chest pain within 24 hours and either ST-segment depression or elevation of troponin at entry. CRP and TnT at randomization from 7108 patients (91%) were determined at the core laboratory. CRP (≤1.84, 1.84-3.86, 3.86-9.62, >9.62 mg/l) and Tn T (≤0.01,0.01-0.12, 0.12-0.47, >0.47ug/l) were divided into quartiles and its association to mortality at 1 year follow up was evaluated by Chi2 and multiple logistic regression analysis adjusting for other risk factors.
Results: Mortality at one year;
The combination of CRP and TnT enhanced the prognostic information with 1.8% mortality for men with both markers in the lowest quartile and 16.3% with both markers in the highest. For women the corresponding figures where 1.5% and 21.0%.
CRP and Troponin T quartiles were independently related to mortality even after adjustment for other established risk factors in multivariate analysis.
Conclusion: In unstable coronary syndrome the level of CRP and TnT independently predicts a higher long term mortality in both men and women. The combination of the markers further enhances the long-term prognostic insight.

Mortality at one year

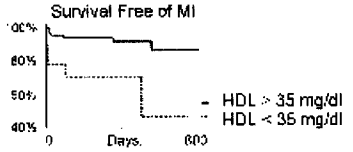
	1	Quartiles 2	3	4	p-value(trend)
Males					
TnT	4.3%	7.8%	7.5%	11.4%	<0.001
CRP	5.0%	5.9%	6.4%	14.4%	<0.001
Females					
TnT	3.3%	7.7%	11.7%	17.4%	<0.001
CRP	5.3%	7.6%	9.0%	13.1%	<0.001

9:15 a.m.

841-4 Low HDL Cholesterol Is a Strong Independent Risk Marker in Non-ST Segment Elevation Acute Coronary Syndromes

Juan J. Fuselli, Javier N. Guetta, Carlos P. Boissonnet, José Godia, Alejandro Tettamanzi, Silvia Quiroga, Victor Torres, *CEMIC, Buenos Aires, Argentina.*

Background: Lipids are involved in the genesis of acute coronary syndromes (ACS). However the utility of lipid measurements during ACS is not known.
Objective: To analyze the relationship between usual lipid parameters and markers of inflammation or myocardial necrosis and prognosis in patients (p) with non-ST elevation acute coronary syndrome (NSTEACS).
Methods: Prospective cohort study of 106 consecutive p admitted with NSTEACS. Baseline clinical and ECG data were recorded and blood samples were collected for: a) Lipid measurements: Total cholesterol, LDL-C, HDL-C, and triglycerides (TG)<12 hs from admission. b) cTnT and C reactive protein (CRP) 8 to 24 hs from last chest pain episode. End point (EP) was death and/or MI, follow up 371±201 days (maximum 830).
Results: There was a significant correlation between CRP levels with HDL-C (r = -0.36, p=0.002) and TG (r = 0.27; p< 0.05). No association was found between cTnT and any lipid level. Lower HDL-C levels were associated with worse prognosis (best cut-off point, ROC curve: HDL-C <35 mg /dl, Figure). In a Cox regression model including HDL-C, cTnT and CRP, HDL-C <35 mg/dl was the strongest independent predictor of EP (HR 10.2, CI95% 3.1-33.3; p=.001).
Conclusion: Low HDL-C levels in NSTEACS are associated with elevated CRP, and constitute a strong independent predictor for short- and long-term serious events. Further studies are needed to determine the precise role of lipid measurements in this population and eventually to include them in risk stratification.



9:30 a.m.

841-5 Clinical Utility of Myocardial Perfusion Imaging in Patients Presenting With Chest Pain to the Emergency Room

Bharati Shivalkar, Diana Rinkevich, Sanjiv Kaul, Chris Ghaemmaghami, Todd Belcik, Kevin Wei, *University of Virginia, Charlottesville, Virginia.*

Background: Decreases in coronary driving pressure in the presence of coronary occlusion or critical coronary stenosis cause capillary derecruitment which forms the basis for resting perfusion defects on myocardial contrast echocardiography (MCE). We therefore hypothesized that this technique could be used to distinguish cardiac from non-cardiac causes of chest pain in patients presenting to the emergency room (ER), and that perfusion defects on MCE would provide useful prognostic information.
Methods: Two hundred patients admitted to the ER with suspected cardiac chest pain were included in the study (104 males). Exclusion criteria included age < 40 years, pregnancy or lactation, and allergy to blood components. MCE was performed using continuous infusion of Optison™ (Mallinckrodt) during intermittent ultraharmonic imaging (Agilent). The studies were interpreted by 2 readers blinded to clinical data. Perfusion abnormalities present in at least 1 perfusion territory was considered to be positive.
Results: The MCE studies were interpretable in 153 (77%) patients for all three perfusion beds. Perfusion defects were seen in 58 patients (38%) on the initial study. The incidence of cardiac events (including acute myocardial infarction, unstable angina, congestive heart failure and cardiac death) was 26% in patients with compared to 3% in those without perfusion defects. After a mean follow up of 201 ± 87 days, patients with a positive MCE had a significantly higher incidence of myocardial infarction (p<0.001), congestive heart failure (p=0.002) and total mortality (p=0.03) compared to patients with normal MCE. The incidence of a combined end-point (myocardial infarction, unstable angina, heart failure, all-cause death) was also significantly greater in patients with an MCE defect (p<0.001).
Conclusions: MCE can distinguish between cardiac and non cardiac causes of chest pain in the ER setting. A positive MCE at the time of patient presentation was associated with a significant incidence of early events, and was also highly predictive of a worse prognosis during long-term followup. These results may have important clinical implications.

9:45 a.m.

841-6 Aspirin and Medium Intensity Coumadin Versus Aspirin Alone in the Prevention of Reocclusion After Successful Thrombolysis for Suspected Acute Myocardial Infarction: One-Year Follow-Up of APRICOT-2

Marc A. Brouwer, Paul JP C. van den Bergh, Peter C. Kievit, Wim R M. Aengevaeren, Gerrit Veen, Hans E. Luijten, Don P. Hertzberger, Gerard J H. Uijen, Freek W A. Verheugt, *UMC Nijmegen, Nijmegen, The Netherlands.*

Background: The APRICOT-2 trial demonstrated that the combination of aspirin with medium intensity coumadin (INR 2-3) reduces both angiographic and clinical reocclusion in the first three months after successful thrombolysis. We sought to assess whether the observed early clinical benefit is sustained at 1-year follow-up.
Methods: Patients (n=308) had thrombolytic therapy for suspected acute myocardial infarction within 6 hours of symptom onset with TIMI 3 flow at angiography < 48 hours. They were randomized to either aspirin 80 mg daily, or the combination of aspirin and medium intensity coumadin (INR 2-3). Follow-up angiography was scheduled at three months. Preliminary one-year clinical follow-up was assessed by Kaplan-Meier analysis.
Results: Median follow-up was 305 days(25th,75th percentile 138-507). One-year survival without reinfarction was 93% in patients on aspirin combined with coumadin and 84% in patients on aspirin alone (p<0.01) (figure). Four patients on aspirin and none on combination therapy had an ischemic cerebrovascular event (p=ns). Total bleeding rates were 9% on combination treatment and 4% on aspirin alone (p=ns).
Conclusions: These preliminary findings suggest that the early clinical benefit of aspirin combined with medium intensity coumadin after successful thrombolysis is sustained at one-year follow-up. This benefit was achieved with a higher, but acceptable bleeding risk. Final data will be presented.