hypertension (HT), and metabolic syndromes (MS). The relation between TB levels and in-hospital and long-term outcomes in patients with ST-segment elevation myocardial infarction (STEMI) who undergo primary percutaneous coronary intervention (PCI) is not known. Data from 1624 consecutive patients with STEMI who underwent primary PCI were evaluated. TB was measured after primary PCI, and the study population was divided into tertiles. A high TB group (n=450) was defined as a value in the upper third tertile (>0.9 mg/dl) and a low bilirubin group (n=1174), as any value in the lower two tertiles (≤0.9 mg/dl). In-hospital mortality rate was significantly higher in the high TB group than in the low one (4% vs. 1.5%, p=0.003). In multivariate analyses, a significant association was noted between high TB levels and adjusted risk of in-hospital cardiovascular mortality (odds ratio: 2.67, 95% confidence interval (CI): 1.38–5.2; p=0.004). In receiver operating characteristic curve analysis, a TB value >0.90 mg/dl was identified as an effective cut-point in STEMI for in-hospital cardiovascular mortality (area under curve =0.66, 95% CI: 0.55–0.76, p=0.001). The mean follow-up time was 26.2 months. There were no differences in long-term mortality rates between the two groups. In conclusion, high TB is independently associated with in-hospital adverse outcomes in patients with STEMI who undergo primary PCI. However, there was no association with long-term mortality.

Sunday, October 27, 2013, 10:15 AM–11:30 AM
Hall: BISHKEK

Abstract nos: 53-57

OP-053

Association between Admission Mean Platelet Volume and ST Segment Resolution after Thrombolytic Therapy for Acute Myocardial Infarction

Özgür Kırbaş, Özge Kurmuş, Cemal Köseoğlu, Sina Ali, Recai Alemdar, Bilge Duran, Mehmet Bilge
Cardiology Clinic, Atatürk Education and Research Hospital, Ankara

Objective: Mean platelet volume (MPV) is one of the indices of platelet reactivity and has been shown to be related to impaired angiographic reperfusion in ST-segment elevation myocardial infarction (STEMI) patients who treated with primary angioplasty or thrombolytics. However data regarding MPV and its association with ST -segment resolution; an indicator of epicardial and tissue level reperfusion in the setting of STEMI are limited. In this study, we aimed to investigate whether MPV on admission is associated with ST -segment resolution in STEMI patients treated with thrombolytics.
Methods: We retrospectively evaluated 232 consecutive patients with a diagnosis of first STEMI who were administered thrombolytic therapy within 12 hours of onset of chest pain. ST segment resolution based on baseline and 90 minute electrocardiographies were measured. Patients were grouped into two as with >50% and ≤50% ST -segment resolution. Admission MPV was measured and compared between two groups.
Results: Admission MPV was higher in patients with ≤50% ST -segment resolution than patients with >50% ST -segment resolution (9,9±1,3 fl vs 8,5±1,1 fl respectively, p<0,001). The receiver operating characteristic analysis yielded a cutoff value of 9,3 fL to predict ST -segment resolution, with sensitivity and specifity being 66,7% and 77,9%, respectively. In-hospital mortality rate was high in patients with ≤50% ST-segment resolution (p=0.002).
Conclusions: In conclusion, our study demonstrates for the first time, to the best of our knowledge, that MPV is an independent predictor of ST segment resolution in STEMI patients treated with thrombolytics. These findings may serve to the knowledge of the potential importance of MPV in the successful thrombolysis and prognosis after a cardiovascular event.

OP-054

16-kDa Prolactin Promotes Cardiac Ischemia/Reperfusion Injury

Aylin Hatice Yamac
Bezmialem Üniversitesi Hastanesi, Istanbul

The recent discovery that anti-angiogenic, pro-apoptotic and pro-inflammatory N-terminal 16-kDa prolactin subform (16-kDa Prl) is generated under enhanced oxidative stress and yielding adverse cardiac effects, prompted us to investigate the potential role of prolactin and its cleaved 16-kDa form in myocardial ischemia/reperfusion (I/R) injury.

In the current study we demonstrate that enhanced levels of serum prolactin (Prl) and cathepsin D (CD) activity in patients with acute myocardial infarction (AMI) were associated with the generation of N-terminal 16-kDa subform.

In a murine model of myocardial I/R with previous LAD (left anterior descending artery) ligation for 50 minutes, blockage of endogenous Prl release by the dopamine D2 receptor agonist bromocriptine limited infarct size 24 hours post-reperfusion and preserved left ventricular (LV) function after 14 days of reperfusion.

Additionally, we demonstrate that after blockage of endogenous Prl release, the subsequent application of a recombinant mutant, prolactin isoform, which is not cleaved into the 16-kDa subform, significantly limited the extent of cardiac injury compared to the well-cleaved corresponding wildtype prolactin isoform 24 hours post-reperfusion.

I/R injury-induced up-regulation of pro-inflammatory mediators (e.g. TNF-α, CCL-2, CXCL2) and extravasation of inflammatory infiltrates were significantly reduced in bromocriptine treated mice than untreated controls.

The bromocriptine induced cardiac protection was mainly addicted to inhibition of 16-kDa Prl formation, as myocardium treated with the mutant prolactin isoform displayed substantially less inflammatory cell infiltration and cytokine expression than myocardium treated with the wildtype prolactin isoform.

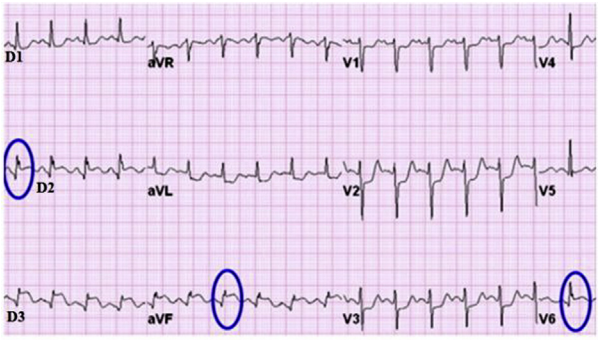
In addition, we discovered that recombinant 16-kDa Prl markedly induced the expression of proinflammatory cytokines via activation of NF-κB signalling in neonatal rat cardiomyocytes.

OP-055

Can Fragmented QRS On 12 Derivation ECG Predict Thrombolytic Therapy Success In Acute ST Elevated Myocardial Infarction?

Zülkif Tanrıverdi[1], Mustafa Aytek Şimşek[2], Barış Ünal[1], Hüseyin Dursun[1], Ömer Kozan[1], Dayimi Kaya[1]
[1]Dokuz Eylul University Hospital Cardiology Department, İzmir, [2]Nevşehir I. Şevki Atasagun State Hospital Cardiology Department, Nevşehir

Objective: Fragmented QRS (fQRS) on surface ECG of patients admitted with acute ST elevated myocardial infarction (STEMI) is shown to be related with poor prognosis in several studies. However there is no study so far evaluated the relationship between presence of fQRS and successful reperfusion with thrombolytic therapy in this group of patients. The aim of our study is to determine whether fQRS can be used as a predictor of thrombolytic therapy response in patients admitting for the first time with STEMI.
Material-Methods: 116 patients admitted Dokuz Eylul University Hospital Cardiology Department for the first time with STEMI and treated with thrombolytic therapy between 01 january 2009 and 01 july 2011 are included in our study. Patients having ECG findings that can be misdiagnosed as fQRS [incomplete right bundle branch block pattern in V1, pacemaker rhythm, wide QRS complex (QRS >120 ms)] and with CABG history are excluded. ECG recordings on admission, at the beginning, 30th, 60th, 90th minutes of thrombolytic therapy and in 48 hours of admission are obtained. Presence of fQRS is defined as presence of more than one R wave pattern or notching on R or S waves in neighbouring 2 derivations (Figure 1). Successful reperfusion is defined as over 50% resolution in the highest ST segment elevated derivation on the ECG taken in 90th minute of reperfusion therapy.
Findings: fQRS was present in 38.8% of patients (45 patients) included in our study. For patients with and without fQRS, there was no significant difference in myocardial infarction (MI) localization (anterior MI: 40% vs 35.2%, p>0.05) and mean door to needle time (29.1±9.4 vs. 26.9±8.1, p>0.05). But there was 28.4 % (27/95) fQRS in patients with successful reperfusion with thrombolytic therapy compared to 85.7% (18/21) in patients with failed reperfusion with thrombolytic therapy (p<0.001) (Figure 2). In addition to these findings patientys with fQRS compared to ones without it are older (66±12 vs 61±10, p=0.02), have more prolonged QRS durations (108.44±9.16 ms vs. 102.25±9.63 ms, p=0.001), have higher leukocyte counts (12.620±3.315 vs. 10.596 ±2.887, p=0.001), have lower left ventricle ejection fraction ((35.56±6.84% vs 47.96±5.64%, p<0.001) and have higher maximum troponin levels (60.60±29.62 vs 30.91±14.80, p<0.01) (Table 1).
Results: Presence of fQRS in acute STEMI is not related with MI localization and timing of thrombolytic therapy. However fQRS on surface ECG of patients admitted with acute STEMI can predict the failure of thrombolytic therapy. Also presence of fQRS can help to determine high risk patients with broader myocardial tissue under threat.



ORALS