patients, IVUS was made in 27% of cases. All patients were treated with drug eluting stents (DES). 4 patients died during the procedure, 2 more patients died during hospitalization, so hospital mortality was 6.2%. There were no repeated myocardial infarctions or target vessel revascularizations during hospitalization. Recurrent angina symptoms due to untreated lesions occurred in 38 patients (39%), 10 patients (10.3%) died during the follow up period. Therefore 4 year mortality was 16.5%. Target lesion revascularization was performed in 11 patients (11%). Among them there were 3 cases of redilated PCI of LMCA. Myocardial infarction occurred in 8 patients. PCI of untreated lesions was performed in 14 patients (14%). MACCE-free survival was 55.1%.

Conclusions: PCI of LMCA and infarct-related LAD or LCX arteries in STEMI patients is effective and safe. Further trials with longer follow up periods are required.

TCT-483 Impact of Smoking on Outcomes of Acute Myocardial Infarction After Drug-Eluting Stent Implantation: The Smoker's Paradox

Yun-Kyong Cho1, Ji-Hyun Sohn2, Hyun-Ok Cho3, Hyang-Seob Park4, Hyuck-Jun Yoon5, Hyungsop Kim6, Chang-Wook Nam7, Seung-Ho Hur8, Yoon-Nyun Kim9, Kwon-Bae Kim10

1Keimyung University Donggusna Hospital, Daegu, Korea, Republic of Korea

Background: Cigarette smoking was associated with higher rates of myocardial infarction (MI) and death from coronary artery disease. However, despite the increased prevalence of ischemic heart disease in current smokers, prior studies showed that smokers undergoing primary percutaneous coronary intervention (PCI) had lower mortality rate than non-smokers. The impact of cigarette smoking in patients with acute MI after drug-eluting stent (DES) implantation has not been examined.

Methods: From databases of our hospital, 1242 patients who confirmed acute MI and underwent successful PCI with DES were consecutively enrolled. Cardiac death, non-fatal MI, target lesion revascularization at 12 months after procedure were assessed.

Results: Five hundred fifty patients (44.3%) were current smokers. In comparison to non-smokers, current smokers were younger, more often men, less frequently had diabetes, hypertension and hyperlipidemia, showed lower serum creatinine level, and frequent medication of ACE inhibitor. Cardiac mortality at 12 months was significantly lower in current smokers (1.1% vs. 3.0%, p=0.019). However, current smoking status was no longer protective from cardiac mortality in multivariate analysis (hazard ratio 0.395, 95% CI 0.130–1.195, p=0.161).

Conclusions: The current smoker showed increased survival than nonsmoker. However, its result entirely explained by difference in baseline risk factors.

TCT-484 Prognostic value of simple standard 12-lead electrocardiographic parameters for predicting clinical outcomes in hospital survivors after acute myocardial infarction

Jang Hoon Lee1, Myung Hwan Bae2, Shung Chull Chae3, Yongkeun Cho4, Hyun Jun Cho5, Won Suk Cho6, Se Yong Jang7, Jae-Eun Jun8, Kyun Hee Kim9, Sun Hee Park10, Hun Sik Park11, Dong Heon Yang12

1Kyungpook National University Hospital, Daegu, Korea, Republic of Korea

Background: The aim of this study was to identify simple standard electrocardiographic (ECG) parameters given automatically in a contemporary ECG machine predicting major adverse cardiac events (MACE) after acute myocardial infarction (AMI).

Methods: Between November 2005 and January 2008, 489 post-MI hospital survivors who had an ECG 3 to 7 days after the attack were included. Philips Trace Master Vue ECG management system was used to obtain ECG parameters. The MACEs were defined as death, non-fatal MI, and heart failure readmission. Mean follow-up duration was 396.8 ± 140.7 (4–1285) days.

Results: Complete follow-up data were available in 468 (95.7%) patients. During the follow-up, 57 (12.2%) MACEs occurred. In univariate analysis, patients with MACE had higher time-voltage QRS area, longer Q wave and ST duration, pathologic Q wave in L, aVL lead, lateral ST depression and T wave inversion in V1-4 among ECG variables. In comparison to non-smokers, current smokers were younger, more often men, less frequently had diabetes, hypertension and hyperlipidemia, showed lower serum creatinine level, and frequent medication of ACE inhibitor. Cardiac mortality at 12 months was significantly lower in current smokers (1.1% vs. 3.0%, p=0.019). However, current smoking status was no longer protective from cardiac mortality in multivariate analysis (hazard ratio 0.395, 95% CI 0.130–1.195, p=0.161).

Conclusions: The current smoker showed increased survival than nonsmoker. However, its result entirely explained by difference in baseline risk factors.

TCT-485 A simple strategy to significantly reduce the “door-to-balloon” time in patients with acute ST-elevation myocardial infarction

Alexander Joos1, Catharina Blumrath2, Peter Radke1

1Universität zu Lübeck, Lübeck, Germany

Background: The in-hospital delay between admission and successful coronary reperfusion (“door-to- balloon” time interval, DTB) in patients with a diagnosis of STEMI is a predictor of mortality. Reducing the DTB time below 90 minutes- as suggested in current guidelines- represents a major challenge for most hospitals as recent registry data report. Simple strategies to reduce the DTB time, therefore, are crucial.

Methods: We aimed to evaluate the impact of a simple strategy to reduce DTB time in patients with STEMI by bypassing the emergency room. To facilitate this aim, we implemented a protocol with “standard- operating procedures” (SOP) defining two different clinical scenarios (scenario A: patient is stable and can be directly transferred to the cath- lab, scenario B: patient is unstable or cath- lab is occupied). Medical staff in the emergency department, interventional nurses in the cath-lab and physicians were trained accordingly. 56 patients with STEMI admitted to the hospital from September 2009 to January 2010, were enrolled in this study and served as the control group (“pre-protocol”). After implementing the SOP, 58 consecutive patients with acute STEMI were enrolled between September 2010 to March 2011 (“post-protocol”).

Results: Baseline characteristics were similar between both groups regarding age, gender, body mass index or cardiovascular risk factors. The “symptom-to-door” time interval did not differ between patients before and after establishing the protocol (267 ± 332 vs 272 ± 272 min: p=0.884). The “door-to-balloon” time, however, was significantly reduced as a result of establishing the protocol (89 ± 49 vs. 70 ± 34; p<0.010).

Conclusions: Defining simple standards (SOP) for the intra- hospital workflow in patients with STEMI and respective training of staff members lead to a significant reduction in DTB intervals. Further studies will have to show whether these measures translate into a significant reduction in mortality.

TCT-486 Relationship Between White Blood Cell Count and Final Infarct Size in Patients with ST-segment Elevation Acute Myocardial Infarction Undergoing Primary Percutaneous Coronary Intervention: Analysis from the INFUSE AMI Trial

Talilo Palmerini1, Sorin Brenzer2, Jan-Henk Dambrikz3, Martin Fahy4, C. Michael Gibson5, Jack Godlewski6, Akiko Moezaro7, Andrzej Ochula8, Helen Parise9, Greg Stone10, Bernhard Witzenbichler1

1Policlinico S.Orsola, Bologna, Italy, 2New York Methodist Hospital, Brooklyn, NY, 3Isala klinieken, Zwolle, Netherlands, 4Cardiovascular Research Foundation, New York, NY, 5Beth Israel Deaconess Med Ctr - Harvard Medical School, Boston, USA, 6Jagiellonian University School of Medicine, Krakow, Poland, 7Cardiovascular Research Foundation, New York, NY, 8Assistant Professor, Katowice, Poland, 9Cardiovascular Research Foundation, New York, NY, 10Columbia University Medical Center and the Cardiovascular Research Foundation, New York, NY, 11Charité Campus Benjamin Franklin, Berlin, Germany

Background: Although elevated white blood cell count (WBCC) is associated with an increased risk of mortality in patients with ST-segment elevation myocardial infarction (STEMI) undergoing primary percutaneous coronary intervention (PCI), the mechanisms underlying this association are unknown. We sought to investigate whether elevated WBCC is associated with increased infarct size measured with cardiac magnetic resonance imaging (cMRI) 30 days after primary PCI in the INFUSE AMI trial.

Methods: INFUSE AMI was a 2x2 factorial design trial in which patients with STEMI and proximal or mid left anterior descending (LAD) coronary artery occlusion receiving bivalirudin anticoagulation were randomized to bolus intracoronary abciximab via the ClearWay RX catheter vs no abciximab and to manual aspiration with the Export catheter vs no aspiration. WBCc at hospital admission was available in 323 of 353 randomized patients who had evaluable infarct size with cMRI at 30 days. Patients were stratified according to tertiles of WBCC (tertile I=9–7000µ/l; tertile II=11.2% [3.8%-19.6%] vs. 17.5% [0.5%-22.9%] vs. 19.1% [13.7-26.0] respec-

Results: At 30 days, a significant stepwise increase in infarct size (percentage of total left ventricular mass) was apparent across tertiles of WBCC (median [IQR] for tertiles I vs. II vs. III = 13.200 vs. 13.200 vs. 13.200). Results: At 30 days, a significant stepwise increase in infarct size (percentage of total left ventricular mass) was apparent across tertiles of WBCC (median [IQR] for tertiles I vs. II vs. III = 13.200 vs. 13.200 vs. 13.200)