

AT and Timi Flow after PAAAMI, using Fisher's Test. P=0,62

n=406	(AT) 360	%
(TMPG0/1) 104	98	94,2
(TMPG2/3) 302	262	86,7

CRT-18

The Effect Of HbA1c At Admission On Prognosis Of Diabetic Patients With Acute Myocardial Infarction

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Background: It is well known that hyperglycemia and elevated HbA1c level on admission are poor prognostic factors in diabetic patients with acute myocardial infarction (AMI), but the use of intensive therapy to target normal HbA1c level increased mortality and did not significantly reduce major cardiovascular events in ACCORD Study. Is the less than 6.0% HbA1c level on admission safe in diabetic patients with AMI? The aim of this study was to determine the contribution of HbA1c at admission on prognosis of AMI.

Methods: A total of 2,679 diabetic patients with AMI in KorMI registry between January 2008 and August 2011. There are 1,360 ST segment elevation myocardial infarction and 1319 non ST segment elevation myocardial infarction. Plasma HbA1c levels were available for all patients. We categorized the patients according to HbA1c level, Group I <6%, Group II ≥6. 1-month and 12-month major adverse cardiac event (MACE) was defined as either all cause of death, myocardial infarction and any type of revascularization.

Results: Less than 6.0% HbA1c Group I had a higher 1-month and 12-month MACE than over the 6.0% HbA1c Group II. In multiple logistic regression analysis, less than 6.0% HbA1c was related to an increased risk of developing MACE (odds ratio 2.80, 95% confidence interval 1.63-4.80, p=0.001).

Conclusion: Less than 6.0% HbA1c on admission might be an important poor prognostic factor in diabetic patients with AMI at 1-month and 12-month follow-up.

	HbA1c<6.0%	HbA1c≥6.0%	
Patient Number	201	2478	
1 month MACE	29 (14.4%)	205 (8.3%)	p<0.01
12 month MACE	43 (21.4%)	322 (13.0%)	p<0.001

CRT-19

Outcomes Of Different Strategies Of Revascularization In Patients With St-elevation Myocardial Infarction With Multivessel Disease Depending On The Severity Of Coronary Stenosis On A Syntax Score

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Purpose: There is no evidence to apply a differentiated approach to the choice of revascularization strategy for patients with ST-elevation myocardial infarction (STEMI) and multivessel disease (MVD). Thirty-day and long-term outcomes of different strategies of revascularization in a cohort of STEMI patients with MVD, depending on the severity of coronary stenosis on a SYNTAX SCORE were analyzed.

Methods: Outcomes of different revascularization strategies in 227 STEMI patients in the aspect of an objective assessment of the severity of coronary lesions on a SYNTAX SCORE were studied. The first group consisted of patients who underwent multivessel stenting (MS) strategy in the primary PCI (n = 40), the second group consisted of patients defined by staged revascularization (SR) (n = 187). Each group was divided into

subgroups according to severity of coronary lesions on a SYNTAX SCORE: SYNTAX ≤ 22 (moderate) and SYNTAX ≥ 23 (severe).

Results: Subgroups of patients with SYNTAX ≥ 23, as a group, MS, and SR group at baseline were associated with decreased left ventricular ejection fraction compared with subgroups SYNTAX ≤ 22 (p <0.05). In the SR group, as for 30 days and within 12 months observation was significantly more frequent need for non-target vessel revascularization (non-TVR) compared with the group of MS, 13.3% vs 0, and 50.3% vs 15%, respectively (p <0.05). In 12 months observation SR group had combined end-point (death + myocardial infarction + target vessel revascularization (TVR)) 23% vs. 7.5% in the MS group (p <0.05). SYNTAX ≥ 23 in the SR group compared with SYNTAX ≤ 22 was associated with significantly greater frequency of death, 11.5% vs. 2.75% (p<0.05) and combined end-point, 29.5% vs. 18.3% (p <0.05), respectively for 12 months observation.

Conclusion: In a cohort of STEMI patients with MVD revealed the relationship between severe coronary stenosis (SYNTAX ≥ 23) and a number of clinical and angiographic parameters, in particular, is reflected in the frequency of adverse outcomes at 12 months of observation. The strategy of MS had satisfactory results at 12 months of observation regardless of the severity of coronary lesions, whereas patients with SR group (SYNTAX ≥ 23) showed worse outcomes compared with patients with moderate severity of coronary lesions (SYNTAX ≤ 22).

CRT-20

Comparison Of Prasugrel 60 Mg Vs Clopidogrel 600 Mg Loading Doses In Patients Undergoing Primary PCI For Acute STEMI

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Objective: The aim of this study is to compare the efficacy and safety of prasugrel 60 mg vs. clopidogrel 600 mg loading doses in patients undergoing primary PCI for acute STEMI.

Background: There is ever increasing evidence to suggest that potent antiplatelet therapy plays a crucial role in the management of patients with Acute Coronary syndromes (ACS). Recent randomized trial demonstrated greater reduction in infarct size with clopidogrel 600 mg vs. 300 mg loading doses in patients undergoing primary PCI for STEMI. While the Triton TIMI 38 trial demonstrated superiority of prasugrel 60 mg to clopidogrel 300 mg load in patients with ACS, to our knowledge there has never been a head to head comparison between prasugrel 60 mg vs. clopidogrel 600 mg loading doses.

Methods: This was a retrospective observational study comparing patients presenting with acute STEMI, who were treated with prasugrel 60 mg vs. clopidogrel 600 mg loading doses. These were sequential patients based on a protocol driven change from clopidogrel to prasugrel. The primary end point was the evaluation of infarct size, based on peak CK and CK-MB elevation. Secondary end points include global discharge LVEF and TIMI flow grade before and after PCI. Safety endpoint was in-hospital bleeding complications.

Results: Mean age of the study subjects was 56 years, with 82% being males. There was no statistically significant difference between the two groups in terms of infarct size. The peak CK was 1442 ± 1128 U/L in the prasugrel group (n=38) vs. 1522 ± 1467 U/L in the clopidogrel group (n=34) (p=0.79). The peak CK-MB was 132 ± 100 ng/ml in the prasugrel group vs. 123 ± 117 ng/ml in the clopidogrel group (p=0.73). Similarly, there were no significant differences in the prespecified secondary end points and safety end point.

Conclusions: In patients undergoing primary PCI for acute STEMI, pretreatment with prasugrel 60 mg vs. clopidogrel 600 mg was not associated with significant difference in infarct size. These findings support the need for additional randomized trials to determine the relative efficacy of these two different strategies in the acute STEMI population.

CRT-21

Role Of Intracoronary Injection Of Na-nitroprusside In Preventing No-reflow Phenomenon In Patients With STEMI During Primary Percutaneous Coronary Intervention

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Objectives: To assess the role of intracoronary injection of Na-Nitroprusside in preventing no-reflow phenomenon in patients with STEMI during primary percutaneous coronary intervention.

Background: No-reflow constitutes a marker of more extensive myocardial tissue damage and is associated with poor functional recovery and worse outcome after acute myocardial infarction.

Method: Sixty patients presented between July 2009 and October 2011 with acute STEMI eligible for primary PCI were randomized into three groups (20 patients each), 1st group received intracoronary administration of 100–300 µg of Nitroprusside just after visualization of the vessel distal runoff, a 2nd group received 100–300 µg of nitroglycerin and a 3rd group who didn't receive either Nitroprusside or nitroglycerin (control group). Assessment of post procedure TIMI flow grading and myocardial blush grading (MBG) was done.

Results: Na-Nitroprusside group showed a statistically significant better post procedure TIMI flow and MBG and higher number of patient with post procedure TIMI 3 flow and MBG 3 than control {18 (90%) vs 9 (45%) p value= 0.018} respectively, {10 (50%) vs 4 (20%) p value= 0.0221} respectively and a statistically non significant better post procedure TIMI flow and MBG with higher number of patients with post procedure TIMI 3 flow and MBG 3 when compared to those who received intracoronary nitroglycerin (p value> 0.05).

Conclusion: Intracoronary injection of Na-Nitroprusside prevent no-reflow phenomenon and improve post procedure TIMI flow and MBG in patients with STEMI during primary percutaneous coronary intervention.

CRT-22

Primary Coronary Percutaneous Intervention In Diabetic Versus Nondiabetic Patients. Outcome And Follow-up. Independent Predictors Of Survival And Event Free Survival

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Objectives: Some studies showed that diabetic patients (D) group (DG) had a worse outcome when compared to nondiabetic (ND) patients group (NDG), after primary percutaneous coronary intervention (PCI). The objectives were to compare mortality and major coronary events (MACE) at 30 days and 1 year of DG and NDG submitted to primary PCI and to study whether another conditions were related to worst outcome of patients in 30 days or one year.

Methods: Prospective study with 450 consecutive patients submitted to PCI from 01/01/2001 to 12/31/2006 (121 D and 329 ND) with ST-segment elevation acute myocardial infarction (AMI) in the first 12 hours of symptoms presentation treated with balloon catheter or bare metal stent and without cardiogenic shock. We used in statistical analysis: Student t test, chi-square test, Fischer exact test, and multivariate analysis: logistic regression and Cox analysis.

Results: DG and NDG had similar age (63.1±10.0 and 62.3 ±11.7 years, p=0.443), male gender (63.6% and 69.9%, p=0.205) and multivascular disease (66.1% and 60.8%, p=0.301). The diabetic group had more dyslipidemia (65.3% × 51.7%, p=0.009) and severe left ventricular dysfunction (15.7% × 8.2%, p=0.019). The stent implantation rate was (83.5% and 81.1%, p=0.863) and glycoprotein (GP) IIb/IIIa inhibitors utilization (79.3% and 82.2%, p=0.831) were similar. The mortality at 30 days (2.5% and 2.7%, p=1.000) and at 1 year (5.0% and 6.7%, p=0.650) and MACE at 30 days (4.1% and 6.4%, p=0.496) and at 1 year (19.4% and 15.4%, p=0.3492) were similar. The absence of TIMI III flow after the procedure (procedure failure) was the only independent hospital mortality (30 days) predictor (P<0,001, OR=8,045, CI95 2,327-27,816). Procedure failure (p=0,023, HR=3,364, CI95 1,182-9,578) and age ≥ 65 years (P=0,035, HR=3,391, CI95 1,091-10,543) were independent predictors of mortality at 1 year. The multivessel coronary disease (p=0,023, OR=4,218, CI95 1,223-14,545 and procedure failure (P<0,028, OR 3.155, CI95 1.132-8.799) were independent predictors of MACE at 30 days and multivessel coronary disease was independent of MACE at 1 year (p=0.034, HR=1.854, CI95 1.048-3.280).

Conclusions: The diabetic patients submitted to primary PCI had mortality rate and MACE similar to none diabetic patients at 30 days and 1 year. The absence of TIMI III flow were predictor of mortality at 30 days and 1 year and age ≥ 65 years at 1 year. Independent predictors of MACE at 30 days were multivessel coronary disease and absence of TIMI III flow (procedure failure) and at 1 year was multivessel coronary disease.

CRT-23

Impact of the CHADS₂ and CHA₂DS₂-VASc Score on Prognosis In Acute Myocardial Infarction Combined With Atrial Fibrillation

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Background: Atrial fibrillation has been known for a predictor of poor prognosis in myocardial infarction. We assessed the impact of the CHADS₂ and CHA₂DS₂-VASc score on prognosis in patients with atrial fibrillation combined with acute myocardial infarction (AMI) treated invasively.

Methods: We analyzed 10,482 patients, who have been followed up for over 12 months, among 13,901 patients registered in the Korea Acute Myocardial Infarction Registry between November 2005 and December 2006. CHADS₂ and CHA₂DS₂-VASc score were defined according to ESC2010 guideline.

Results: AF was recognized in 423 patients (4.0%); the remaining 10,059 patients (96.0%) were free of atrial fibrillation. For patients with or without atrial fibrillation, univariate analysis showed that components of CHA₂DS₂-VASc score and metabolic syndrome were associated with high one year composite MACE. Multivariate analysis showed that heart failure, age >75, diabetes, CVD, multivessel involvement were associated with high one year composite MACE. When CHADS₂ was equal or greater than 2, it could predict one year cardiac death (95% CI: 2.095-2.562, p < 0.001, Sensitivity 63.2%, Specificity 66.6%, AUC 0.680). When CHA₂DS₂-VASc was equal or greater than 3, it could predict one year cardiac death (95% CI: 2.235-2.742, p < 0.001, Sensitivity 74.4%, Specificity 59.6%, AUC 0.723). For patients with atrial fibrillation, univariate analysis showed that heart failure, age>75, cerebrovascular event, Low HDL-cholesterol, multivessel involvement were associated with high one year composite MACE. Multivariate analysis showed that heart failure, age >75, CVD, multivessel involvement were associated with high one year composite MACE. When CHADS₂ was equal or greater than 2, it could predict one year cardiac death (95% CI: 1.840-4.730, p < 0.001, Sensitivity 71.3%, Specificity 54.3%, AUC 0.649). When CHA₂DS₂-VASc was equal or greater than 3, it could predict one year cardiac death (95% CI: 1.934-5.536, p < 0.001, Sensitivity 80.6%, Specificity 44.1%, AUC 0.653).

Conclusions: In patients with or without atrial fibrillation, CHADS₂ and CHA₂DS₂-VASc score demonstrated significant value in its predictive accuracy for 1-year mortality in patient with acute myocardial infarction. CHADS₂ and CHA₂DS₂-VASc score for patients with acute myocardial infarction is a simple and good risk scoring system in prediction of 1-year mortality.

CRT-24

Impact of Insurance Type in Patients with Acute Myocardial Infarction Treated with Percutaneous Coronary Intervention

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Objectives: The goal of this study is to investigate baseline risk factors, angiographic characteristics, interventional procedural information and hospital outcomes in patients with acute myocardial infarction (AMI) treated with percutaneous coronary intervention (PCI) according to insurance status.

Background: Recent studies demonstrate that patients with government-sponsored insurance and no insurance have worse cardiovascular outcomes than patients with private insurance after PCI. Additionally, insurance status has a significant impact in the decision to use drug-eluting or bare-metal stents. The effect of insurance type in patients undergoing PCI for the treatment of AMI is not known.

Methods: Baseline demographics, clinical characteristics, PCI procedural information and hospital outcomes were investigated in 771 patients with AMI (STEMI and NSTEMI) treated at the Los Angeles County Hospital + USC Medical Center and Keck Medical Center of USC between January 2008 and June 2011. Patients were divided into 3 groups according to insurance type: Uninsured (n=301), government sponsored (n= 399, including Medicare and Medicaid), and private (n=71).

Results: Uninsured compared to government sponsored and private insurance patients were younger (54.2±7.5 vs. 62.7±12 vs. 58.2±10.9, p<0.0001), more likely Hispanic (59.8% vs. 17.95% vs. 33.8%, p<0.0001), had higher total cholesterol (189.5±56 vs. 163.8±47 vs. 175.3±54.1 mg/dL, p<0.0001), more likely to have metabolic syndrome (54.5% vs. 42.5% vs. 50%, p=0.05), and had lower rates of renal insufficiency (2.1% vs.