and subsequent impact on adverse events during Non-ST elevation myocardial infarction (NSTEMI).

Methods: A total of 1,264 NSTEMI patients underwent PCI between 2009-2013. GRACE scores were calculated post-hoc to assess high-risk (HR) vs. non-high-risk (non-HR) patients, and further analyzed according to revascularization time (early revascularization (ER) ≤ 24 hrs or delayed (DR) > 24 hrs). To assess predictors of ER, multivariable logistic models were constructed which included patient characteristics upon presentation and GRACE score. Multivariable models were also created for effect of ER on 6-month target vessel revascularization or major adverse cardiovascular events (TVR-MACE) comprised of all-cause death or Q-wave MI.

Results: The majority (61%) of non-HR patients underwent ER, whereas the majority (58%) of HR patients underwent DR. HR GRACE patients were 49% less likely to undergo ER compared with non-HR (odds ratio (OR) 0.51, 95% CI 0.36-0.71; p < 0.001), despite their increased risk. Hemoglobin < 10g/dL (OR 0.33 [0.2-0.52] p < 0.001) and presentation year ≥ 2012 (OR 0.65 [0.5-0.86] p < 0.001) were also associated with DR while magnitude of troponin change from baseline was associated with ER (OR 1.02 [1.01-1.03] p = 0.001). TVR-MACE at 6 months was significantly greater for HR than non-HR patients (34.9% vs. 11.4%, p < 0.001). However, E PCI did not reduce events within either group; HR-delayed vs. early (35.1% vs. 34.6%, hazard ratio (HR) 1.10 [0.92-1.38] p = 0.09) or non-HR delayed vs. early (10.2% vs. 12.1%, HR 1.73 [0.92-3.28] p = 0.09).

Conclusions: Non-HR patients were more likely to receive ER than any other group, possibly a result of lower procedural risk compared with HR patients and/or less clinician confounding associated conditions warranting attention prior to revascularization. A clinician’s clinical gestalt appears to determine the most appropriate timing of revascularization for patients with NSTEMI, unrelated to overall risk. This decision does not translate into a difference in adverse events.

TCT-6
Positive T-wave Amplitude In Lead AVR As A Predictor For A Higher Rate Of In-hospital Coronary Artery Bypass Graft In Patients With Non-ST Elevation Myocardial Infarction

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Background: Positive T-wave amplitude in lead aVR has been shown to be associated with the presence of multi-vessel disease and worse clinical outcome in patients with ST elevation myocardial infarction, although its effects on patients with non-ST elevation myocardial infarction (NSTEMI) has not been fully explored. We aimed to investigate the impact of positive T-wave amplitude in lead aVR on clinical outcomes in NSTEMI patients.

Methods: 340 NSTEMI patients who presented during 2013 were retrospectively reviewed. Electrocardiograms were interpreted in a blinded fashion; Positive T-wave (PTw) was defined as T-wave amplitude > 0 mV and Negative T-wave (NTw) was defined as T-wave amplitude ≤ 0 mV in lead aVR. Patients were divided into two groups; PTw and NTw. Angiograms were reviewed in a blinded fashion. Multi-territorial ischemia was diagnosed based on the clinical and angiographic findings when there is greater than 90% stenosis in more than two coronary arteries. The rate of in-hospital revascularization procedures including percutaneous coronary intervention (PCI) and coronary artery bypass graft (CABG) as well as in-hospital major adverse cardiac event (MACE) including death, recurrent myocardial infarction, target vessel revascularization, and lethal ventricular arrhythmias were compared between the two groups.

Results: Among 340 patients, 67 patients (19.7%) had PTw and 273 (80.3%) had NTw. Patient with PTw were more likely to have diabetes mellitus (49.2% vs. 32.6%, p = 0.001) and hypertension (88.1 % vs. 71.8%, p = 0.006). Though there was no significant difference in the rate of multi-vessel disease between the two groups, patients with PTw had a higher rate of multi-territorial ischemia (31.3% vs. 15.4%, p = 0.003) compared to patients with NTw. The presence of PTw was associated with a higher rate of in-hospital CABG (13.4% vs. 5.9%, p = 0.033) and a lower rate of in-hospital PCI (32.8% vs. 55.3%, p = 0.001). There was no statistical difference between the two groups in the rate of in-hospital MACE (1.5% vs. 2.2%, p = 0.716).

Conclusion: Positive T-wave amplitude in lead aVR was significantly associated with a higher rate of multi-territorial ischemia and in-hospital CABG in patients with NSTEMI.

TCT-7
Prolonged QTC Interval as a Predictor of In-hospital Heart Failure in Patients with Non-ST Elevation Myocardial Infarction

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Background: Prolonged QTC interval has been shown to have a predictive value for major adverse cardiac event including death, recurrent ischemia, and urgent coronary revascularization in non-ST elevation acute coronary syndrome. However, little is known about the correlation between prolonged QTC interval and the incidence of heart failure.

Methods: We retrospectively reviewed 292 consecutive NSTEMI patients who presented with chest pain and underwent coronary angiography within five days after presentation from January 2013 to December 2013. Of the 292 patients, 19 patients with atrial fibrillation or paced rhythm were excluded. Electrocardiography and coronary angiography were reviewed by a blinded fashion. QTC prolongation was defined as QTC greater than 450ms in men and 470ms in women. The rate of in-hospital percutaneous or surgical revascularization and in-hospital major adverse cardiac event (MACE) including death, recurrent myocardial infarction, target vessel revascularization, lethal ventricular arrhythmias and heart failure defined by Killip class ≥ 2 were recorded. Clinical characteristics alongside electrocardiographic and angiographic findings were compared between the patients with and without prolonged QTC interval.

Results: Among 273 patients, 93 patients (34.1%) had prolonged QTC interval. Patients with prolonged QTC interval were more likely to have hypertension and prior myocardial infarction than those with normal QTC interval. Patients with prolonged QTC interval had a higher rate of in-hospital CABG (21.5% vs. 5.0%, p<0.001), driven by four-fold increase of heart failure (19.4% vs. 3.9%, p<0.001). However, there was no significant difference in the rate of percutaneous or surgical revascularization or impaired coronary blood flow between the two groups. The association between prolonged QTC interval and in-hospital heart failure persisted after adjusting for hypertension and prior myocardial infarction (odds ratio 5.81; 95% confidence interval, 2.36 to 15.8; P<0.001).

Conclusion: Prolonged QTC interval was commonly observed in patients with NSTEMI and was an independent predictor of in-hospital heart failure.