defined as a lack of clinical and electrocardiographic evidence of ongoing myocardial infarction. Patients who underwent cardiac catheterization without an obvious culprit lesion corresponding to the ECG changes were also included as false STEMI. The diagnoses were obtained based upon the clinical presentation and ECG findings as well as transthoracic echocardiogram and coronary angiography findings in some cases.

RESULTS Of the 431 STEMI activations, (356/431) 82.6% were males and 17.4% (75/431) were females. The overall false STEMI activation rate was 35.3% (152/431). There were 23% (35/152) females and 77% (117/152) males who had false STEMI activations (p = 0.023). The most frequent cause for false STEMI activation was abnormal ECG findings-19% (29/152), of which presumed left bundle branch block accounted for 48% of these. 12.5% had non cardiac chest pain (19/152) and 11.8% (18/152) had Non STEMI (NSTEMI). Coronary artery vasospasm occurred in 7.9% (12/152) of cases. Pericarditis was diagnosed in 6.6% (10/152) and severe hypertension in 5.9% (9/152). There were 5.2% cases (8/152) with a diagnosis of acute or decompenated Congestive Heart Failure (CHF), unstable angina and syncope each. 4.6% (7/152) had cardiac arrest. Pericardial effusion was found in 3.3% (5/152) patients. Three patients (2%) were diagnosed each with Brugada and Takotsubo. Two patients (1.3%) had pulmonary embolism (PE), aortic dissection and Implantable Cardioverter Defibrillator (ICD) shocks each. Less common causes were endocarditis, Intracranial Hemorrhage (ICH), Subdural Hematoma, severe Aortic Regurgitation (AR), severe anemia, ventricular aneurysm and sepsis where 1 case of each was observed.

CONCLUSIONS The commonest reason for False STEMI activation was the finding of an abnormal ECG. Presumed new LBBB accounted for 48% of the ECG abnormalities.

CATEGORIES CORONARY: Acute Myocardial Infarction
KEYWORDS ST-segment elevation myocardial infarction

TCT-259 Impact of ECG-Defined Infarct Location on Mortality in Patients with STEMI Undergoing Primary PCI: Insights from the HORIZONS-AMI Trial
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BACKGROUND Anterior ST-segment elevation infarction (A-STEMI) is associated with larger infarct size and greater reduction in left ventricular ejection fraction (LVEF) compared with non-anterior STEMI (NA-STEMI). Whether or not ECG-defined STEMI location predicts long-term mortality after primary percutaneous coronary intervention (PCI) is unclear. We sought to investigate: (i) the clinical and quantitative coronary angiography (QCA) characteristics of patients with ECG-defined A- and NA-STEMI, and (ii) the unadjusted and independent long-term prognostic impact of ECG-defined STEMI location in patients undergoing PCI.

METHODS Participants from the HORIZONS-AMI trial were categorized according to A-STEMI vs. NA-STEMI ECG-defined STEMI location. By ECG core laboratory analysis, A-STEMI was defined as an ST-elevation in the anterior (V2-4) or anteroseptal (V1-3) ECG leads. Primary endpoint of interest was all-cause mortality at 3 years. Adjusted associations with 3-year mortality were estimated by Cox proportional hazards modeling.

RESULTS Among 2,578 patients undergoing PCI with core laboratory determined STEMI location, 765 (29.7%) and 1813 (70.3%) had A-STEMI and NA-STEMI respectively. Patients with A-STEMI were older and had lower baseline LVEF. Left anterior descending (LAD) artery was the culprit artery in 90% of A-STEMI, while the right coronary (RC) and left circumflex (LCX) were the culprit arteries in 61.7% and 17.4% of NA-STEMIs, respectively. By QCA, lesion length was longer, and thrombus, calcification, and type B2/C lesions were more prevalent in NA-STEMI. At 3 years, patients with A-STEMI had higher unadjusted rates of 3-year all-cause mortality (7.6% vs. 4.8%; p = 0.004). This association persisted after multivariable adjustment for baseline clinical confounders (hazard ratio [HR]: 1.42; 95% confidence interval [CI]: 1.19 - 1.69; p < 0.0001). However, after including QCA variables in the multivariable model, ECG-defined A-STEMI had no effect on 3-year mortality (HR: 1.03; 95% CI: 0.77 - 1.37; p = 0.84). Conversely, QCA variables such as LAD as a culprit artery, presence of LCX plaques with > 50% di-meters stenosis (DS), presence of left main plaques with > 50% DS, and total lesion length did.

CONCLUSIONS ECG-defined A-STEMI was associated with greater long-term mortality in patients undergoing primary PCI from HORIZONS-AMI. Of QCA variables, however, including infarct artery location, had better long-term prognostic value than ECG-defined STEMI location.

CATEGORIES CORONARY: Acute Myocardial Infarction
KEYWORDS Electrocardiography, Infarct, PCI

TCT-260 Combination of Platelet Count and Neutrophil-Lymphocyte Ratio (COP-NLR) Predicts Short-term and Long-term Clinical Outcomes in Patients with ST-segment Elevation Myocardial Infarction
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BACKGROUND It is known that elevated inflammatory biomarkers were associated with clinical outcomes of patients with ST-segment elevated myocardial infarction (STEMI). This study investigated the usefulness of a novel inflammation-based prognostic system, named the combination of platelet count and neutrophil-lymphocyte ratio (COP-NLR) for predicting prognosis of patients with STEMI.

METHODS We analysis 305 consecutive patients with STEMI treated with primary PCI. The COP-NLR was calculated as follows: patients with both an elevated platelet count (> 300 × 109/l) and neutrophil lymphocyte ratio (> 3) were allocated a score of 2 and patients showing one or neither were allocated a score of 1 or 0, respectively.

RESULTS The patients with COP-NLR score 0, 1, and 2 was 102, 149, and 23 patients, respectively. The peak CK-MB (281.4 ng/ml, 219.7 ng/ml, and 265.1 ng/ml, respectively, ANOVA P = 0.070) and Troponin T (0.63 ng/ml, 0.78 ng/ml, and 1.57 ng/ml, respectively, ANOVA P = 0.117). The in-hospital mortality was highest in COP-NLR score 2 (0%, 4.7%, and 13.8%, respectively, P = 0.002). The Kaplan-Meier curve showed that higher COP-NLR score significantly associated with major cardiovascular adverse events in 12-month follow-up.