or left main (LM) disease could modify revascularization strategy. Aim: to analyze this issue in patients with STEMI undergoing primary PCI.

Methods: PCI procedures were performed in 408 consecutive patients (63.1±13.6 years; 73.4% males) by 6 different cardiologists. Choice of ipsilateral approach (IA): starting with the supposed " culprit artery", or a contralateral one (CA) was left to the operator. Differences between the two approaches and their influence on reperfusion time, early complications and revascularization strategies were analyzed.

Results: Right coronary artery (RCA) was the responsible in 41.8% of cases, left anterior descending in 41.5%, circumflex in 15.5% and LM in 1.3%. IA was preferred in 53.06% of cases and CA in 46.94%. There were no differences between two approaches regarding baseline features of patients, reperfusion time, radiation exposure, mortality or hospital stay. With IA a higher volume of contrast was used (189±170 cc; p<0.01) When the left coronary artery (LCA) was the responsible, IA was more frequently performed (76%) vs 24% vs 24%); but when it was the RCA, CA was preferred (IA 23.5% vs CA 50%), p<0.01. With IA, bare metal stents (BMS) were more used than drug eluting (BMS 53.3% vs DES 34.6%) inversely than with IA (BMS 39.3% vs DES 55.7%); p<0.0001. With CA there were more patients with LM or multivessel disease in which revascularization was completed with surgery (4.1% vs 2.4%; p<0.0001).

Conclusions: Initial CA does not involve higher reperfusion time or clinical events. On the contrary, the overall knowledge of coronary anatomy could imply a change in management: greater use of BMS and programmed cardiac surgery. Moreover, ECG is not always definitive to determine the culprit artery, specifically in inferior myocardial infarctions. Despite the need to individualize each case, contralateral approach may be the first option with the exception of unstable patients.

TCT-49
Direct stenting of infarct related artery without predication in ST-segment elevation myocardial infarction; A randomized trial evaluating microvascular dysfunction and clinical outcome
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Background: Myocardial reperfusion following primary percutaneous coronary intervention (PCI) is limited due to atheroembolic events in patients with ST-segment elevation myocardial infarction (STEMI). We aimed to evaluate the impact of direct stenting technique on myocardial reperfusion and clinical outcomes of patients with STEMI undergoing primary angioplasty (PCI).

Methods: Consecutive 78 patients were randomly assigned to the direct stenting or the percutaneous balloon predication TIMI 2 or 3 (PB) group. PCI was achieved by selective aspiration thrombectomy Epicardial and myocardial patency were assessed according to Thrombosis In Myocardial Infarction (TIMI) flow scale and TIMI myocardial perfusion (TMP) grade. Index of microcirculatory resistance (IMR) was assessed with thermodilution curves during maximal hyperemia immediately after PCI. One year clinical outcome was compared.

Results: A total of 78 patients were randomized after exclusion of patients not suitable for stenting. Direct stenting was feasible in 34 of 39 patients who were initially randomized (DS group) and stenting after balloon predication was done to 39 patients (PB group). There were no significant differences in epidemiologic parameters, pain-to-treatment time, and use of Glycoprotein IIb/IIIa Inhibitor. Final TIMI grade 3 flow (93.1% vs 82.1%, p=0.025), final TIMP grade 3 (64.3% vs 58.6%, p=0.6) and peak CK-MB level (178 vs 190 ng/dL, p=0.73) were comparable between DS and PB group (76.5%). IMR was similar between DS and PB group (23.3 vs 29.4 mmHg-sec, p=0.38). IMR could not be measured in 5 patients, including 1 in DS and 4 in PB group, due to cardiogenic shock after stenting. At one year, 3 cardiac death had occurred in PB group (0% vs 7.7%, p=0.24).

Conclusions: DS without predication after TA is not inferior to PB during PCI in improving myocardial perfusion and has a tendency of better clinical outcome. When anatomically and technically feasible, DS technique may be considered.

TCT-50
In-Hospital Outcomes of Routine Early Post-Thrombolysis Percutaneous Coronary Intervention in Acute ST-Elevation Myocardial Infarction
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Background: Pre-hospital thrombolysis is associated with reduced time delay. Routine early PCI after thrombolysis may optimize reperfusion and prevent reinfection. The aim of this study was to evaluate in-hospital outcomes of routine early PCI after prehospital tenecteplase thrombolysis in patients with acute ST-elevation myocardial infarction in real-world clinical practice.

Methods: Data were collected on all patients (n = 721) with STEMI admitted to the center who received PCI related to primary PCI from 2008 to 2013. Our cohort included forty-four patients (20%) received routine early post-thrombolysis PCI were compared with 577 patients received primary PCI. The composite of in-hospital death, myocardial infarction, and stent thrombosis defined as major adverse cardiac events (MACE) and their major endpoints.

Results: Patients received routine early post-thrombolysis PCI were significantly younger than patients PCI group (56.9±10.2 years versus 59.6±11.2 p=0.01). The rate of diabetes mellitus, dyslipidemia, hypertension, chronic kidney disease and previous MI were comparable between groups. The culprit artery was more often the LAD in patients received routine early post-thrombolysis PCI (81.3% versus 46.2%, p<0.001). The median “pain-to-needle” time was 80 minutes in patients after prehospital thrombolysis. The median time from thrombolysis to PCI was 4.5 hours. The median “door-to-balloon" time was 86 minutes in primary PCI group. The rate of transradial approach was comparable between groups (56.3% vs 57.2%; p=0.838). Occluded culprit arteries were more rarely identified during routine early PCI after prehospital thrombolysis (41.7% vs 71.4%; p=0.001). There were no differences in rates of failed PCI (5.2% vs 3.5%; p=0.388) and access site complications (4.9% vs 6.6%; p=0.564). The rate of stent thrombosis (3.5% vs 1.6% p=0.127), repeat myocardial infarction (2.1% vs 0.9%; p=0.202), death (2.8% vs 3.5% p=0.459) as well as MACE (7.6% vs 8.1%; p=0.841) were comparable between groups.

Conclusions: In real-world clinical practice in-hospital outcomes of routine early PCI after prehospital thrombolysis were comparable with primary PCI in acute ST-elevation myocardial infarction.

TCT-52
The impact of collateral connection between chronic total occlusion and infarct related artery on early clinical outcomes in acute ST elevation myocardial infarction
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Background: The effects of collateral circulation between chronic total occlusion (CTO) and infarct related artery (IRA) in acute ST elevation myocardial infarction (STEMI) remains unknown. We aimed to assess the influence of this connection on early clinical outcomes after primary percutaneous coronary intervention (PPCI) in acute STEMI.

Methods: From March 2013 through May 2014, a total of 534 consecutive acute STEMI patients who underwent PPCI were enrolled in the study. After PPCI, 62 (11.6%) patients with concurrent CTO were divided in two groups. Accordingly, after restoration of antegrade flow, the new appearance collateral circulation to the CTO were classified as CTO-IRA connected group. The others were classified as CTO-IRA unconnected group.

Results: In this study, we found the adverse effects of collateral circulation in CTO-IRA connected group. This group was associated with higher incidence of Killip class ≥2 at presentation, lower rate of post procedural thrombolysis in myocardial infarction (TIMI) 2/3 flow and myocardial blush grade (MBG) 3 than CTO-IRA unconnected group (p=0.011). No difference was found in mortality, recurrent event and higher peak troponin T levels. In addition we found that CTO-IRA connected group had significantly higher in hospital and 30-day mortality rate (62.5% vs. 0.001, 70%; p<0.001 respectively ). If we excluded the CTO-IRA connected group, early mortality rates became similar in acute STEMI patients with and without coexisting CTO group.

Conclusions: After restoration of antegrade blood flow in PPCI, detectable collaterals from IRA to CTO has an unfavourable effect on procedural success, enzymatic infarct size, pre- and post procedural haemodynamic conditions in acute STEMI patients. Furthermore these collaterals can predict the early clinical outcome.