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Conclusion Given the importance of PEDF in atherosclerosis and thrombosis it is tempting to speculate that local administration of PEDF may become a novel strategy for the treatment of coronary thrombosis.

Clopidogrel Pre-Treatment is Associated with Reduced In-hospital Mortality in Primary Percutaneous Coronary Intervention for Acute ST-Elevation Myocardial Infarction BAII

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Aims Pre-treatment with clopidogrel results in a reduction of ischemic events in elective coronary interventions. Data on upstream clopidogrel in the setting of primary percutaneous coronary intervention (PCI) is limited. The aim of this study was to investigate whether clopidogrel loading before arrival at the PCI centre may result in an improved outcome of primary PCI for ST-elevation myocardial infarction (STEMI).

Methods and Results In a multicentre registry of acute PCI 5955 patients undergoing primary PCI in Austria between January 2005 and December 2009 were prospectively enrolled. Patients were stratified into 2 groups, a clopidogrel pre-treatment group (n = 1635 patients) receiving clopidogrel before arrival at the PCI centre and a peri-interventional clopidogrel group (n = 4320 patients) receiving clopidogrel at a later stage. Multiple logistic regression analysis including major confounding factors and stratified for the participating centres was performed to investigate the independent effect of pre-treatment with clopidogrel on in-hospital mortality.

On univariate analysis, clopidogrel pre-treatment was associated with a reduced in-hospital mortality (3.4% vs 6.1%, $p < 0.01$) after primary PCI. After adjustment for major confounders in multivariate analysis, clopidogrel pre-treatment remained a strong and independent predictor of in-hospital mortality (OR 0.59, 95%-CI: 0.38–0.91; p = 0.02; **Table 2**).

Conclusion Clopidogrel pre-treatment before arrival at the PCI centre is associated with reduced in-hospital mortality compared with peri-interventional treatment in a real world setting of primary PCI. These results strongly support the recommendation of clopidogrel treatment "as soon as possible" in the setting of primary PCI.

Table 2: J. Dörler et al.

Variable	Odds ratio	95%-CI	p-value
Clopidogrel pre-treatment (yes vs no)	0.59	0.38–0.91	0.02
Cardiogenic shock (yes vs no)	20.3	14.3–28.9	< 0.01
Resuscitation (yes vs no)	2.02	1.33–3.07	< 0.01
Previous myocardial infarction (yes vs no)	1.57	1.02–2.42	0.04
Year (2005–2007 vs 2008–2009)	1.10	0.78–1.56	0.59
Gender (male vs female)	1.06	0.74–1.52	0.77
Age (per year)	1.05	1.04–1.07	< 0.01
ASA/Heparin pre-treatment (yes vs no)	0.75	0.49–1.15	0.19
Gp IIb/IIIa-Antagonist pre-treatment (yes vs no)	1.09	0.67–1.76	0.74
Secondary transfer (yes vs no)	0.72	0.49–1.06	0.09

The Prevalence and Distribution of Culprit Artery Occlusion in Non-ST-Elevation Myocardial Infarction: "Pseudo-NSTEMI" BAII

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Purpose Non-ST-segment elevation myocardial infarction (NSTEMI) may be associated with total occlusion of the culprit artery, which is frequently not diagnosed on the standard 12-lead ECG. This may lead to missed opportunities for prompt reperfusion therapy. We sought to determine the prevalence of acute artery occlusion and location of culprit lesions involved in NSTEMI.

Methods We examined 2219 consecutive patients with NSTEMI enrolled in a multicentre registry of acute percutaneous coronary intervention (PCI). The inclusion criteria were definite myocardial infarction (elevated troponin and/or CKMB with either symptoms and/or ST-segment depression) and invasive strategy within 72 hours of symptom onset. The patients were divided into 2 groups according to the initial TIMI flow (TIMI 0/I, "occluded"; vs TIMI II/III, "patent"). Baseline characteristics, treatment, culprit artery distribution and in-hospital outcome were compared.

Results The prevalence of total occlusion was 33.9% in the entire cohort. In patients with total occlusion, the culprit lesion was more frequently located in the arteries supplying the infero-lateral territory (circumflex, CX; right coronary artery, RCA) compared to patients with patent arteries (CX: 31.2% vs 18.8%, $p < 0.01$; RCA: 31.2% vs 22.6%, $p < 0.01$; LAD: 26.6% vs 38.2%, $p < 0.01$). Patients with total occlusion had significantly shorter delays to PCI (pain to PCI: 951 [460–1730] min. vs 1302 [582–2221] min., $p < 0.01$; door to PCI: 360 [125–1138] min. vs 180 [791–1483] min., $p < 0.01$). In-hospital mortality, however, was similar in both groups (TIMI I vs TIMI II/III 2.7 vs 1.8; p = n. s.).

Conclusion Totally occluded culprit lesions occur in one third of patients with NSTEMI in a real world setting and are more frequently located in CX and RCA, but may also be seen in LAD territories. Early risk stratification needs to be enhanced to improve identification of "Pseudo-NSTEMIs" that would benefit from urgent reperfusion as in STEMI.

Cardiogenic Shock Complicating Myocardial Infarction – Patients at Risk and Differences to Patients with ST-Elevation Myocardial Infarction? I – 3

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Background Development of cardiogenic shock (CS) in acute myocardial infarction (AMI) is a severe and life-threatening compli-

Table 3: G. Fürnau et al.

	Shock	No shock	Odds ratio	CI	p-value
Male sex (%)	70.5	74.6	0.87	0.68–1.1	0.24
Prior AMI (%)	17.8	9.0	0.60	0.46–0.78	0.001
Prior PCI (%)	18.0	8.8	0.59	0.45–0.77	< 0.001
Prior CABG (%)	6.9	1.4	0.41	0.30–0.57	< 0.001
Smoking (%)	38.3	43.2	1.16	0.91–1.47	0.22
Hypertension (%)	68.9	69.8	1.03	0.81–1.32	0.81
Hyperlipidemia (%)	41.7	35.3	0.82	0.65–1.04	0.98
Diabetes (%)	34.6	29.1	0.84	0.66–1.06	0.14
Sinusrhythm (%)	69.6	92.0	2.57	2.10–3.14	< 0.001
Anterior wall infarction (%)	54.4	48.7	0.84	0.63–1.12	0.22
3 vessel disease (%)	57.1	21.3	0.34	0.27–0.42	< 0.001