Conclusions: Effective thrombectomy protects myocardial function and functional capacity, and reduces no-reflow and hospital mortality.

<table>
<thead>
<tr>
<th></th>
<th>ET (n=178)</th>
<th>Non-ET (n=117)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-reflow (%)</td>
<td>28(15.7%)</td>
<td>47(40.2%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hospital mortality (%)</td>
<td>3(1.7%)</td>
<td>7(6%)</td>
<td>0.049</td>
</tr>
<tr>
<td>STR &lt;70% (%)</td>
<td>117(65.7%)</td>
<td>50(42.7%)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

TCT-138
OCT evaluation of intensive vs standard manual thrombus aspiration in STEMI patients without thrombectomy, followed by those who underwent thrombectomy, and with visible pre-stenting residual thrombus (79% vs. 22%, p<0.001). No-reflow phenomenon occurred frequently in the large thrombus burden (97% in 38 patients). Distal embolization occurred in 2 patients. On OCT, initial thrombus volume was 7.07 mm³ vs. 3.80 mm³ for final thrombus (54% reduction, p<0.01). Minor incomplete stent apposition with a mean surface of 0.12 mm² was seen in 4 patients (10.8%). Intrastent protrusion was constant but minimal 0.33 mm². Minimal stent area and minimal flow area were not different (8.28 mm² vs. 7.84 mm², Δ = 0.44, p=0.07). No anemia, kidney injury nor other complications occurred during hospital stay.

Conclusions: The results from our study suggest that intensive manual thrombus aspiration using a catheter during a primary coronary angioplasty seems to be effective in reducing the thrombus burden as assessed by OCT. These results have to be confirmed in large clinical studies.

TCT-139
Effect of thrombus burden and its residue on no-reflow phenomenon after manual thrombectomy in patients with ST-elevation myocardial infarction
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Background: Large thrombotic burden is a well-known predictor of no-reflow phenomenon and mortality in patients with ST-elevation myocardial infarction (STEMI). However, few data are available on the clinical significance of residual thrombus after thrombectomy. Therefore, we aimed to investigate the efficacy of manual thrombectomy in decreasing thrombus burden, and the effect of residual thrombus on myocardial perfusion after thrombectomy.

Methods: 416 consecutive STEMI patients undergoing primary percutaneous coronary intervention (PCI) were studied. The no-reflow phenomenon occurred in 39 patients (97%) and TIMI 3 flow was present in 39 patients (97%) and TIMI 3 Blush in 38 (95%). ST segment elevation decreased by more than 70% in 38 patients. Distal embolization occurred in 2 patients. On OCT, initial thrombus volume was 7.07 mm³ vs. 3.80 mm³ for final thrombus (54% reduction, p<0.01). Minor incomplete stent apposition with a mean surface of 0.12 mm² was seen in 4 patients (10.8%). Intrastent protrusion was constant but minimal 0.33 mm². Minimal stent area and minimal flow area were not different (8.28 mm² vs. 7.84 mm², Δ = 0.44, p=0.07). No anemia, kidney injury nor other complications occurred during hospital stay.

Conclusions: The results from our study suggest that intensive manual thrombus aspiration using a catheter during a primary coronary angioplasty seems to be effective in reducing the thrombus burden as assessed by OCT. These results have to be confirmed in large clinical studies.

TCT-140
Prognostic value of manual thrombus aspiration in patients undergoing Primary Percutaneous Coronary Intervention
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Background: Recent studies question the value of manual thrombus aspiration (TA) before PCI in patients with ST-segment elevation infarction (STEMI). The aim of this study was to evaluate the impact of TA in a contemporary cohort of patients admitted to our hospital with STEMI who were undergoing primary percutaneous coronary intervention (PCI).

Methods: We analyzed the data and clinical outcomes of 1044 consecutive patients undergoing PCI between January 2009 and December 2013. We classified patients into TA-PPCI (n=666) and non TA-PPCI (n=378). Mean follow-up was 23 months. Primary endpoint was all cause mortality and secondary endpoint was major adverse cardiovascular events (MACE; death, recurrent MI, target vessel revascularization, heart failure).

Results: The median patient age was 65 years, 76.6% were men, 50.1% had hypertension, and 24% had diabetes. Percutaneous access was via the radial approach in 88% of the patients. The variables independently associated with TA use are: sex, culprit artery, number of vessel disease and TIMI 0 before PCI. At the end of the follow-up 12.5% of the patients died: 11.1% in TA-PPCI group, and 15.1% in non TAPPCI (p=0.040;See Image 1). The incidence of major adverse cardiovascular events (MACE) at the end of the follow-up was 23.1%: 21% in TA-PPCI group and 23.7% in non TA-PPCI 0.022 (P<0.022). However, after cox regression analysis, we don’t find independent association between TA and mortality or MACE.

Conclusions: The use of TA in a “real-world” cohort of patients with STEMI who were undergoing PCI was not associated with a reduction in mortality or MACE risk.