

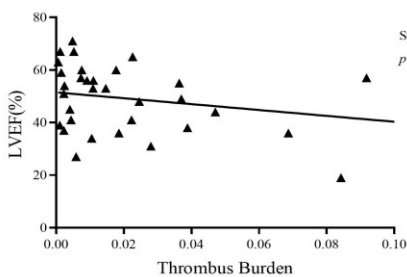
Thrombus Burden Predicts LVEF But Not Infarct Size after Primary PCI In Patients With ST-Segment Elevation Myocardial Infarction

[Purpose] The aim of this study was to evaluate if thrombus burden accessed by optical coherence tomography predicts the outcomes of primary percutaneous coronary intervention in patients with ST-segment elevation myocardial infarction (STEMI).

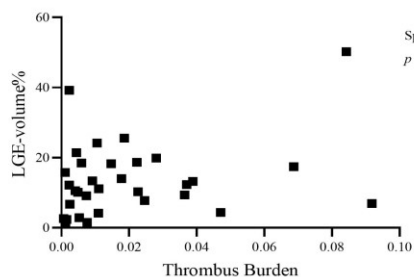
[Methods] A total of 31 STEMI patients with LAD as culprit lesion and received stenting within 12 h from symptom onset were included. Optical coherence tomography was performed before stenting to measure thrombus burden. Thrombus burden was calculated as thrombus volume divided by lumen volume over a 30 mm measurement length of the culprit lesion. Primary end point was left ventricular ejection fraction (LVEF) and late gadolinium enhancement (LGE) by cardiac magnetic resonance at 30 days.

[Results] Thrombus burden was negatively correlated with LVEF at 30 days ( $r=-0.36$ ,  $p<0.05$ ) and so was the maximum thrombus-to-lumen area ratio ( $r=-0.38$ ,  $p<0.05$ ) but neither was related to LGE at 30 days (both  $p>0.05$ ).

[Conclusion] STEMI patients with greater thrombus burden had worse cardiac dysfunction but not greater myocardial damage compared with those with smaller thrombus burden.



\*Note: one patient with thrombus burden=0.20 and LVEF=36% is out of this graph range



\*Note: one patient with thrombus burden=0.20 and LGE-volume%=28.32% is out of this graph range

