Background High thrombus burden (HTB) is an independent predictor of no- or low-reflow during primary percutaneous coronary intervention (pPCI). This study sought to compare immediate versus delayed stenting in ST-elevation acute myocardial infarction (STEMI) patients with high thrombus burden.

Methods We retrospectively analysed myocardial perfusion and cardiac function in 103 acute STEMI patients with HTB (Thrombus score, TS≥2), who underwent pPCI. All patients received standard antithrombotic therapies and initial interventions such as manual thrombus aspiration or balloon dilatation. The immediate stenting group (IS, n=53) received stent placement immediately after angiography if necessary regardless of HTB, while the delayed stenting group (DS, n=50) was deferred for stent implantation for 37 days if TIMI flow was ≥1 at initial angiography or after initial interventions and received enhanced antithrombotic therapy with Tilofiban infusion for 48 h, and thereafter stent implantation was at discretion of the operator based on the residual stenosis in the infarcted related artery. TIMI score (TIMIs), TIMI frame count (TFC) and myocardial blush grade (MBG) were compared immediately after stent implantation for both groups.

Results The baseline major clinical characteristics including gender, age, TS and TIMIs were similar in both groups. Immediately after stent implantation, TIMIs, TFC and MBG in the DS group were better than those in IS group ($p<0.01$, each), with more frequent MBG ≥2 found in DS group ($p<0.01$). 6-month follow-up showed that left ventricular ejection fraction (LVEF) in the DS group was better than that in the IS group ($p<0.05$). Univariate analysis showed that delayed reperfusion ($p<0.01$), low TIMIs ($p<0.01$), high TFC ($p<0.01$), low MBG ($p<0.001$) and high TS with immediate stenting ($p<0.01$) at initial coronary angiography correlated with poor myocardial perfusion. Multiple logistic regression analysis identified HTB ($p<0.01$), immediate stenting ($p<0.05$) as independent predictors of poor myocardial perfusion.

Conclusions Compared with immediate stenting, delayed stenting seems to improve myocardial perfusion and cardiac function in STEMI patients with high thrombus burden.

[gw22-e0474]

COMPARISON OF DELAYED VERSUS IMMEDIATE STENTING FOR ST-SEGMENT ELEVATION ACUTE MYOCARDIAL INFARCTION WITH HIGH THROMBUS BURDEN

Ke Dan,[1] Fan Lin,[1] Chen Lianglong[1] [1]*Department of Cardiology, Union Hospital, Fujian Medical University*

10.1136/heartjnl-2011-300867.529