DELAYED STENT IMPLANTATION FOLLOWING PRIMARY PERCUTANEOUS CORONARY INTERVENTION FOR ST ELEVATION MYOCARDIAL INFARCTION IN PATIENTS WITH SEVERE MASSIVE THROMBUS

Da Yin, Hao Zhu, Xuchen Zhou, Yuqing Jia, Hashen Cui, Shise Sun The Cardiovascular of 1st Hospital Of Dalian Medical University, Dalian, China

Objective To compare the two strategies, Delayed-Stent implantation and conventional-stent implantation (routine procedure), for ST elevation myocardial infarction (STEMI) in patients with massive thrombus burden following Primary Percutaneous Coronary Intervention.

Methods From August 2009 to March 2011, 90 out of 172 consecutive STEMI patients with massive thrombus burden were involved. All the patients achieved TIMI grade 3 flow and residual stenosis <50%, post thrombus aspiration and plain old balloon angioplasty. It randomised to delayed-stent implantation group (D group, 45 patients) and conventional-stent implantation group (C group, 45 patients). Corrected TIMI Frame Count (cTFC), myocardial blush grade (MBG), Ratio of ST fall-after-rise >70% within 24 h, massive haemorrhage, major adverse cardiac event (MACE) in hospital and 30 days follow-up were assessed.

Results Compared with C group, D group achieved better results in cTFC (24.51±6.38 vs 32.13±8.96, p=0.026), MBG (2.24±0.93 vs 1.72±1.12, p=0.02), the ratio of no-reflow (7.70% vs 31.53, p<0.001), ST fall-after-rise>70% within 24 h (81.23% vs 71.67%, p=0.002). However, massive haemorrhage, in-hospital and 30-day follow-up MACE were no difference.

Conclusion Compared with conventional PCI, the strategy of delayed-stent implantation is a rational and feasible choice for STEMI in Patients with Massive Thrombus Burden.