GW26-e4476
Administration of intracoronary verapamil via self-made perfusion balloon to Treat No-Flow Phenomenon following PCI in patients with Acute Coronary Syndromes
Jincheng Guo, Wenming Chen, Guozhong Wang, Fuli Zhu, Rong Xu, Zhenghai Zhang, Shunjin Gan
Beijing Luhe hospital, Capital Medical University

OBJECTIVES To evaluate the efficacy and safety of intracoronary administration of verapamil through self-made perfusion balloon, with ≥4 holes punctured by needle at the end of a rapid exchange balloon, to treat impaired blood flow (no/slow flow phenomenon, MACE including composite of death, myocardial infarction, target vessel revascularization, and target lesion revascularization and stent thrombosis at 30 days and 6 months). Analyses were by intention to treat.

RESULTS Baseline patient characteristics were similar between the MAC group and control group, the sheath placement time (2.2±1.8 min vs 1.7±1.3 min), the PCI procedural success rate(91.7% vs 91.7%), door to balloon time(87.1±39.4 min vs 85.6±35.0 min) and contrast consumption(103±37 ml vs 110±41 ml) in the two groups were not statistically significant(p > 0.05). Compare with the Control group, C2B time, total procedure time and the overall fluoroscopy time were significantly lower in MAC Group (17.1±5.5 min vs 18.64±4.20 min, p < 0.001; 32.1±15.4 min vs 35.9±12.9 min, p < 0.03; 8.9±1.8 min vs 9.9±4.8 min, p = 0.032, respectively). The 30-day MACE rates were 2.8% and 2.2% in the MAC and control groups (p > 0.05). No significant difference in MAC was observed at 6-month (5.6% vs 5.0%, p > 0.05).

CONCLUSIONS A single transradial MAC 3.5 guiding catheter for coronary angiography and intervention seems to be a better option for patients with STEMI for whom primary PCI is planned. It can shorten C2B time, procedure time and fluoroscopy time. Further study is required to determine whether this strategy can favorably affect clinical outcomes.

GW26-e3893
Establishment of an experimental angiographic slow coronary flow model by microsphere embolism in pigs
Yupeng Bai, Liqun Hu, Delong Yu, Xiaogang Liu, Mingqiang Zhang, Ye Gu
Department of Cardiology, Puiui Hospital, Huazhong University of Science and Technology

OBJECTIVES No-reflow or slow flow post revascularization remains a challenge in interventional cardiology. Till now, there is no animal model with angiographic evidence of slow flow. The objective of this study is to establish a swine slow flow model with angiographic evidence mimicking the clinical situation.

METHODS In closed chest porcine, slow flow was established in 8 pigs by repeated small amount left anterior descending coronary in- jection of 40 μm microsphere injection till the appearance of angiographic slow flow: Thrombosis in Myocardial Infarction (TIMI) frame count (TFC)>40. TFC and TIMI myocardial perfusion grade (TMPG) were determined in coronary angiography examinations (CAG). CAG and left ventriculography were repeated at 4 weeks post procedure.

RESULTS One pig died at 2 days post microsphere injection and autopsy evidenced lung edema in this animal, another pig received temporary mechanical ventilation due to breathing depression post anesthesia and recovered. TFC was significantly increased at the time of establishment of no-reflow compared to baseline (39.8±19.4 vs. 15.8±3.4, p < 0.05) and returned to baseline value (18.2±2.3) at 4 weeks post procedure. Left ventricular (LV) end-diastolic volume (32.8±4.2 vs. 24.4±3.7 ml, p < 0.05) and LV end-diastolic pressure (14.3±1.2 vs. 7.8±3.6mmHg, p < 0.05) were higher, LV systolic pressure (123±9 vs. 147±15mmHg, p < 0.05) and ejection fraction (58±5 vs. 68±5%, p < 0.05) were lower at 4 weeks post procedure compared to baseline values.

CONCLUSIONS Angiographic no-reflow could be reliably induced in porcine by coronary microsphere injection. This model may support investigation on underlying mechanisms and new therapy options for slow flow phenomenon.

GW26-e4529
Very Long-term Outcomes of Percutaneous Coronary Intervention with Drug-eluting Stents versus Coronary Artery Bypass Grafting for Patients with Unprotected Left Main Coronary Artery Disease
Fang Chen
Department of Cardiology, Beijing An Zhen Hospital, Capital Medical University and Beijing Institute of Heart Lung and Blood Vessel Disease, Beijing

OBJECTIVES This study aimed at comparing the long-term (>5 years) outcomes of patients with unprotected left main coronary artery (ULMCA) disease underwent percutaneous coronary intervention (PCI) with drug-eluting stents (DES) and coronary-artery bypass grafting (CABG).

METHODS All consecutive patients with ULMCA disease treated with DES implantation versus CABG in our center, between January 2003 to July 2009, were screened for analyzing. A propensity score analysis