Conclusion In AMI patients treated with primary PCI, Combination of thrombus aspiration and tirofiban was safe and effective, which could lower thrombosis burden, improve distal myocardium perfusion and cardiac function after procedure, did not increase the incidence of MACEs.

e0483 THE CLINICAL RESEARCH FOR ENDOVASCULAR TREATMENT OF DEBAKEY III AORTIC DISSECTION RECEIVED DOMESTIC THIN STEEL BINDING STENTS GRAFTING

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Liao Wei, Zhou Aiqin. *The Affiliated Hospital of Gannan Medical College*

Objective To evaluate the efficacy and safety of endovascular treatment for Debakey III aortic dissection by domestic thin steel Binding stents grafting.
Methods Between October 2006 to March 2010, 42 patients (all male, average age (53.5±12.8) years, range 43～70 years old) with Debakey III aortic dissection was treated with domestic thin steel Binding stents grafting, used an innovative transmission and delivery methods in all patients, of which branch stent were inplanted when the distance from the break of descending aorta to left subclavian artery is less than 10 mm.
Results 42 patients were successfully implanted 48 thin steel Binding stents, including four branch stents. After the operation, six patients were verified endoleak, 3 of the patients were resolved by repeated stent distension and 3 cases were treated by placement of another stent. Three months later, one patient showed new rupture at the remote port of the stent and then was successfully implanted a new stent. Four cases showed numbness of right lower extremity and 1 case showed intermittent claudication of it. In follow-up of 3–32 months, MRI or CT showed the reduce of the false cavity with the formation of intraluminal thrombus, the enlargement of true cavity, and no complications such as tumour rupture, internal leakage and stent displacement in all of the patients.
Conclusions Endovascular thoracic aorta repair, with domestic thin steel Binding stents grafting and the innovative methods of interventional therapy, is an effective, less invasive and safe surgery with faster postoperative recovery, higher success rate and fewer complications for patients with Debakey III type aortic dissection, especially applicable to high-risk patients.

e0484 THE SAFETY STUDY OF TIROFIBAN IN PATIENTS WITH STEMI DURING EMERGENCY PCI

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Guo Lai-jing, Hu Dayi, Huo Yong, Tang Qiang, Zhang Huiying, Xing Liying, Wang Zhi, Zhang Shuhe, Shi Zhentao, Zhu Zhenzhong. *Chronic Disease Institute, Beijing University Shougang Hospital*

Objective To assess the safety of GP IIb/IIIa antagonists tirofiban in patients with ST elevation myocardial infarction (STEMI) during emergency Percutaneous Coronary Intervention (PCI).
Method 120 patients with STEMI during emergency PCI, divided into two groups, tirofiban+PCI group (n=60) and primary PCI group (n=60). The two groups are compared on their major adverse cardiovascular events (MACE) rates which consisted of death, new onset myocardial infarction, persistent myocardial ischeamic state, Cardiac function (1eft ventricular ejection fraction) after operation, compression haemostasia time and adverse drug effect while in hospital.
Result Major adverse cardiovascular events (MACE) rates in tirofiban+PCI group was higher than that of primary PCI group (10% vs 6.7%); Postoperative heart function was better in tirofiban+PCI group than that in primary PCI group (56.97±8.41 vs 54.15±7.11): There was no difference in severe haemorrhage between the two groups.The bleeding event rates were of higher tendency in tirofiban+PCI group. (8.3% vs 3.3%). APTT and compression haemostasia time of tirofiban+PCI group were significant when prolonged (53.97±10.58 vs 32.51±6.31) $p<0.05$), but no more bleeding and heamatom events occurred during prolongation.
Conclusion GPII b/III a antagonists tirofiban+PCI is a possible safe and effective reperfusion method with STEMI during emergency PCI.

e0485 CLINIC STUDY OF DOMESTIC TIROFIBAN ON TIMI FLOW DURING FACILITATED PCI

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[1]Guo Lai-jing, [1]Hu Dayi, [1]Huo Yong, [1]Tang Qiang, [1]Zhang Huiying, [1]Xing Liying, [1]Wang Zhi, [2]Qu Huaqing, [1]Shi Zhentao, [3]Zhu Zhenzhong, [1]Yan Do, [1]Tang Qunzhong, [1]Chen Xuezhi, [1]Liu Xiumin. *[1]Department of Cardiology Beking University Shougang Hospital; [2]Department of Cardiology Beking University Shougang Hospital; [3]Department of Emerergency Beking University Shougang Hospital*

Objective To assess Thrombolysis In Myocardial Infarction (TIMI) flow of the nation-produced tirofiban in patients with ST-segment elevation myocardial infarction (STEMI) during primary Percutaneous Coronary Intervention (PCI).
Methods 120 patients with STEMI during primary PCI from Nov 2006 to June 2009 were divided into two groups, tirofiban+PCI group of 60 cases (51 males and 9 females) with mean age (60.11±10.96) years old, and the other primary PCI group of 60 cases (42 males and 18 females) with mean age (64.33±11.91) years. The TIMI flow before and after operation were observed in all cases angiographically.
Results By using tirofiban before operation improved TIMI flow, a greater percentage of TIMI 1 grade flow was achieved in the tirofiban+PCI group compared with the primary PCI group before operation (13.3.8% vs 3.3%, $p>0.05$). There was no difference of TIMI 3 grade flow between the two groups after operation, TIMI 2 grade flow was lesser in tirofiban+PCI group (6.7% vs 3.4%, $p>0.05$).Reperfusion arrhythmia was lesser in tirofiban+PCI group (3.4% vs 6.7%).
Conclusion Tirofiban may improve TIMI flow of the IRA in patients with STEMI during emergency PCI.

e0486 TRANSCATHETER CLOSURE OF NO RIM LARGE ATRIAL SEPTAL DEFECT WITH AMPLATZER OCCLUDERS: TECHNICAL CONSIDERATIONS, SAFETY AND FEASIBILITY

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Chen Lianglong, Luo Yukun, Lin Chaogui, Peng Yafei, Zheng Xingchen. *Fujian Union Hospital*

Backgrounds Transcatheter closuring no rim or large atrial septal defect (ASD) with Amplatzer occluding device (AOD) was technically challenged. The present study was to address technical issues, and to test the safety and feasibility for transcatheter closuring large and no rim ASDs with AOD.
Methods Patients, with large ASDs of 325 mm and with no rims at least in one defect border detected echocardiographically, were included in the study. 49 patients eligible underwent transcatheter closure of ASDs and divided into group A (n=26, large ASDs with intact rims) and group B (n=23, large ASDs with no rims). Three occluding methods i.e. the conventional releasing, the waist prereleasing, and the dumbbell-shaped releasing were sequentially

attempted for all patients if necessary. For the waist pre-releasing method, the waist of AOD was released immediately following the expansion of the distal umbrella and withdrawn to wedge the defect in order to enhance the self-centralisation of the occluder; for the dumbbell-shaped releasing method, the distal umbrella was released within the upper left pulmonary vein to constrain the expansion of the umbrella, and the delivering catheter was further withdrawn slowly until the proximal umbrella was expanded in the right atrium, and finally, the original shape of the distal umbrella could quickly recover by slightly shaking or pulling the catheter, meanwhile the AOD could well fixed the defect.

Results The average diameter of ASDs in group A and B were 27.2±11.7 mm and 28.5±11.9 mm, respectively ($p>0.05$), and the average diameter of finally used AODs was 34.5±10.2mm and 38.7±11.9 mm, respectively ($p<0.01$). The technical successful rates respectively for group A and B were 61.5% and 26.1% ($p<0.05$) by using the conventional releasing method, increased to 70.1% and 39.1% ($p<0.05$) by trying the waist pre-releasing method, and further increased to 100% and 100% by attempting the dumbbell-shaped releasing method. Neither major complications no occluder dislodging occurred peri-procedurally in the two groups.

Conclusions Trans-catheter closure of no rim large-to-huge ASD with the AOD may be safe and feasible; closuring no rim large-to-huge ASD needs bigger AODs and more use of the dumbbell-shaped releasing method.

e0487 ONE YEAR OUTCOME OF TRANSCATHETER CLOSURE OF VERY LARGE ATRIAL SEPTAL DEFECT WITH AMPLATZER OCCLUDERS

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Chen Lianglong, Luo Yukun, Lin Chaogui, Peng Yafei, Zheng Xingchun. *Union Hospital Fujian Medical University*

Objective This study was to investigate the outcome of transcatheter closuring large-to-huge ASD with the AOD within one year.

Methods 35 consecutive patients with large-to-huge ASD (330 mm) underwent transcatheter defect closure and then were followed up peri-procedurally, at 1-, 6-, and 12-month periods following the operation by clinical assessment, electrocardiographic and echocardiographic examination. All patients received 6-month antithromboembolic therapy by using either aspirin or warfarin at the discretion of the operator. The major adverse cardiac events (MACE) include cardiac death, occluder dislodgment leading to urgent cardiac surgery, occluder occupation significantly impeding haemodynamics or cardio-electrical activities, AOD-related thromboembolism, AOD-related atrial rupture, the minor adverse cardiac events (MACE) include occluder occupation with or without slight interference of haemodynamics, AOD-related arrhythmia and residual shunting.

Results The average diameter of ASD in 35 patients was 33.7±5.2 mm (range 30 mm to 38 mm), and the average diameter of final AOD used was 38.1±7.1 mm (range 32 mm to 42 mm). The immediate technical success was 100% without severe peri-procedural complications. MACE was not found in each stage within a one year follow-up, but MAC Ewas frequently encountered, among which occluder occupation with asympathetic haemodynamic interference occurred 45.7% peri-procedurally, 42.9% at 1-month, 40.0% at 6-month, and 34.3% at 12-month, and AOD-related atrial arrhythmia occurred 51.4% peri-procedurally, 14.3% at 1-month, 8.6% at 6-month, and 2.9% at 12-month. Persistent small residual shunting was found in 24 (68.6%) patients and I°AVB in one (2.9%) patient.

Conclusions The large-to-huge ASD can be occluded by using AOD without technical difficulty, but the long-term safety and efficacy requires further study.

e0488 TRANSCATHETER CLOSURE OF PARAPROSTHETIC VALVE LEAKS AFTER SURGICAL VALVE REPLACEMENTS

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Pan Xin, Zhang Wei, Wu Weihua, Lu Jing, Wang Cheng, Feng Yun, Fang Weiyi. *Department of Cardiology, Shanghai Chest Hospital, Shanghai Jiaotong University, Shanghai 200030, China*

Objective To elucidate the techniques of transcatheter closure of paravalvular leak (PVL) by Amplatzer occluder, and evaluate its feasibility, effectiveness, and safety.

Methods 5 patients with PVL (4 males and 1 female), with a mean age of 58.6±17.2 (ranged from 38 to 81). Aortic mechanical valve (2), mitral bioprosthetic valve (2), and double mechanical valves (1) replacements were involved. We attempted percutaneous transcatheter closure of PVLs in 4 patients of single valve replacements. Patients requiring double mechanical valves replacement were treated by a team formed by interventionalist and cardiac surgeons. The team used a mini thoracotomy with direct transapical puncture of the left ventricle via a 'hybrid' approach, in order to close mitral PVL under general anaesthesia.

Results We used Chinese-made Amplatzer occluder to close PVLs. All procedures were technically successful. 5 patients of our group reported significant symptomatic improvements during short term follow-up after procedure. 2 patients of aortic PVLs had achieved complete occlusion without residual regurgitation, 3 patients of mitral PVLs closure demonstrated that there had been tiny or mild mitral paraprosthetic leak. However, no interference with valve leaflet motion were diagnosed by transthoracic echocardiography after the procedure. In our group, cardiac perforation and pericardium tamponade occurred in 1 patient with aortic PVL during interventional therapy, who recovered after being given emergent pericardiocentesis. Other 3 patients treated by mitral PVLs closure had transient severe haemolysis, which were resolved after 1 to 3 weeks.

Conclusions Percutaneous or transapical left ventricular access closure of PVLs is technically demanding, but is feasible and safe in selected patients, with a reasonable degree of technical and clinical success. However, there are still a variety of complications, technical and device improvement. Methodology standardisation is further required.

e0489 PULMONARY VEIN STENTING FOR THE TREATMENT OF ACQUIRED SEVERE PULMONARY VEIN STENOSIS COMPLICATING ABLATION FOR ATRIAL FIBRILLATION

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Pan Xin, Fang Weiyi, Wu Weihua, Wang Cheng, Lu Jing. *Department of Cardiology, Shanghai Chest Hospital, Shanghai Jiaotong University, Shanghai, China*

Introduction Ablation procedures for atrial fibrillation (AF) are being performed with increasing frequency. One of the most serious complications is the development of pulmonary vein stenosis, which occurs in 1% to 3% of current series. The preferred therapy for symptomatic PVS is pulmonary vein (PV) angioplasty, but this treatment modality is still uncertain in China. The aim of this study