

aortic valved stent implantation above the coronary ostia might avoid blocking the coronary ostia.

Method Fresh pig pericardium were procured and processed to make artificial valves, and then mounted on tubular braided stents to make valved stents. Twenty healthy dogs weighing 17.7 ± 3.1 kg were selected to establish a canine model of acute aortic valve rupture. The dogs were randomly divided into two groups: the rupture group without any treatment and the valved stent group with percutaneous valved stent implantation above the coronary ostia. The two groups of animals were followed up for 3 months. Echocardiography and other tests were performed to assess aortic regurgitation and ventricular function.

Results Acute aortic valve rupture models were successfully established in 16 of 20 dogs. In the rupture group, the mean aortic regurgitation was 6.8 ± 1.9 ml/s, only three of eight animals survived for 3 months. In the valved stent group, the mean aortic regurgitation was 7.0 ± 2.1 ml/s, valved stents were successfully implanted above the coronary ostia in eight animals. Instant post-implantation anatomy showed that the stents were located appropriately. Seven dogs survived for 3 months. Reduced aortic regurgitation was detected by colour Doppler echocardiography and no valved stent dislocation was found by 64-slice CT scan.

Conclusion Percutaneous valved stent implantation above the coronary ostia is feasible and effective as a transitional treatment for acute aortic valve rupture.

e0542 **TRANSCATHETER THERAPY OF VENTRICULAR SEPTAL RUPTURE IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION COMPLICATED BY VENTRICULAR SEPTAL RUPTURE**

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Objective To explore the feasibility and clinical effects by transcatheter interventions used for the patient suffering acute myocardial infarction (AMI) complicating with ventricular septal rupture (VSR) postinfarction.

Methods Between June 2005 and August 2009, Ventricular septal rupture (VSR) patients diagnosed with VSR underwent transcatheter closure aged 59–79 years old (mean 63.3 ± 24.7). The occluders were released with the monitoring of transthoracic echocardiography (TTE) and X-ray fluoroscopy.

Results 3 cases were successfully treated with transcatheter closure. The defect diameter was 11–28 (17 ± 9.5) mm measured by TTE and the size of the occluder was 16–32 (21.3 ± 7.6) mm. The occluder successful rate was 100%. The case success in 2 and a big VSR lead to die in 1.

Conclusions VSR was showed by praecordial area auscultation, transthoracic echocardiography (TTE) and left ventricular angiography after AMI. The transcatheter closure of VSR postinfarction is alternative method in patients not suitable for surgical closure. But the careful examination and preparation are need before transcatheter closure.

e0543 **CLINICAL AND CORONARY ANGIOGRAPHY CHARACTERISTICS BETWEEN YOUNG (<45) AND OLD (>60) PATIENTS WITH CORONARY ARTERY DISEASE**

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Objective To study the clinical and coronary angiography characteristics between young (≤ 45) and old (> 60) patients with coronary artery disease.

Methods Angiographic and clinical data from A: 176 patients (≤ 45) selected from 1795 patients with coronary artery disease from April 2006 to May 2010 were compared to B: 464 patients (> 60) with coronary artery disease from April 2007 to May 2009 in our department.

Results (1) The male in A much more than B (93.1% vs 61.4%, $p < 0.01$). (2) The patients with hypertension or type 2 diabetes mellitus in A were less than B (all $p < 0.01$). (3) The patients with Smoking, taking drug named Anajia or a positive family history in coronary artery disease in A were much more than B (all $p < 0.01$). The incidences of dyslipidemia in A were more than B (28.2% vs 19.0%, $p < 0.05$). (4) The patients because of acute myocardial infarction come to hospital were more than B (72.0% vs 62.5%, $p < 0.01$). (5) Auto driver, the self-employed and government functionary were the top three categories of the coronary heart disease, but farmer, worker and retired military cadre in B. (6) Morbidity: the patients (≤ 45) with coronary artery disease accounted for 9.7% in all patients with coronary artery disease in the same time (the cases 82 (≤ 40) accounted for 4.6%). (7) The patients done coronary angiography in A were more than B (64.0% vs 38.1%, $p < 0.01$). Single vessel coronary artery diseases were seen more frequently in A than B (50.9% vs 21.5%, $p < 0.01$), and especially left anterior descending branch diseases occupied 87.7%; two-vessel diseases and collateral circulation were less in A than B ($p < 0.05$); right coronary artery and circumflex diseases were less in A than B ($p < 0.01$); however lesions and left main artery, left anterior descending branch diseases have no statistics meaning in A and B. The meaningless lesion coronary arteries diseases were much more in A than B (89.0% vs 0.6%, $p < 0.01$). The myocardial infarction patients account for 90% in the groups who had meaningless coronary arteries change showed by coronary angiography in A.

Conclusion The feature of coronary heart disease (≤ 45): (1) Most because of acute myocardial infarction come to hospital; (2) The male, short of labour, more tension, heavy work pressure, the incidences of dyslipidemia, smoking and the early onset group had stronger family history of coronary arteries diseases were high risk groups. The patients taking Anajia may also the high risk groups in our area. (3) Morbidity: accounted for 9.7% in all patients with coronary artery disease in the same time (the cases (≤ 40) accounted for 4.6%). (4) The coronary angiography characteristics about half is the single vessel diseases, especially left anterior descending branch diseases; coronary angiography in some patients has no significant lesions, and mainly to myocardial infarction; there were differences about two and three-vessel diseases, right coronary artery and circumflex diseases, collateral circulation between young (≤ 45) and old (> 60); there were not differences about the left main coronary arteries diseases, left anterior descending branch diseases and the degree of narrowed coronary arteries between young (≤ 45) and old (> 60).

e0544 **THE SAFETY AND EFFICIENCY OF DALTEPARIN DURING PERCUTANEOUS CORONARY INTERVENTION**

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Objective This study was designed to evaluate the efficacy and safety of using dalteparin instead of UFH in selective percutaneous coronary intervention (PCI) of patients with coronary heart disease (CHD).

Methods In this prospective, open-label, multicentre trial, from Jan. 2006 to Apr. 2008, 212 patients with CHD were enrolled. Patients without prior SC dalteparin therapy or those for patients who came