

into the present study from January 2006 to July 2009. Demographic information, concomitant diseases, peri-operative laboratory examinations, angiographic features, and surgery information of consecutive patients who underwent PCI were collected.

Results A total of 13 922 patients were recorded in the database, of which 9.03% (1257/13, 922) had previous PCI. Univariate analysis revealed that patients with prior PCI had significant higher prevalence of hypertension, diabetes mellitus and hyperlipidaemia than those without prior PCI. In addition, the percentage of patients with prior CABG was higher in the former group (6.0% vs 1.9%, $p < 0.001$). In multivariable logistic regression analyses adjusted for demographic, clinical, angiographic and procedural factors, elderly age (OR 1.01, 95% CI 1.00 to 1.01), male (OR 1.74, 95% CI 1.48 to 2.04), hypertension (OR 1.36, 95% CI 1.19 to 1.54), diabetes mellitus (OR 1.43, 95% CI 1.24 to 1.63), hyperlipidaemia (OR 1.30, 95% CI 1.06 to 1.57) and prior CABG (OR 3.37, 95% CI 2.52 to 4.51) were identified as independent risk factors of secondary PCI. Additionally, history of prior CABG was the most important predictor of secondary PCI.

Conclusions Risk factors associated with secondary PCI include elderly age, male, hypertension, diabetes mellitus, hyperlipidaemia and prior CABG, of which previous CABG was the most important.

e0417 EFFECT OF SHENGMAI INJECTION ON CARDIAC FUNCTION AND INFLAMMATORY REACTION IN PATIENTS WITH ACUTE CORONARY SYNDROME

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Objective To confirm the effect of Shengmai injection in improving cardiac function in patients with acute coronary syndrome (ACS) and to explore its influence on inflammatory reaction in patients.

Methods Ninety ACS patients were randomised into two groups, the control group, treated with conventional therapy and the SMI group, treated with SMI. The patients' cardiac function was noted and the high sensitive C-reactive protein (hs-CRP) in venous blood was measured before treatment and 1 week and 2 weeks after treatment, so as to observe and compare their changes in the two groups.

Results The cardiac output, stroke volume and ejection fraction in the SMI group after 3 weeks of treatment were all higher than those in the control group ($p < 0.05$). The serum content of hsCRP was reduced in both groups, but the reduction in the SMI group was more significant than that in the control group.

Conclusion SMI could improve cardiac function and further inhibit the inflammatory reaction in patients with ACS.

e0418 EFFECT OF EECF-INTEGRATED STANDARD THERAPY FOR PATIENTS WITH STABLE CORONARY ARTERY DISEASE: A PROSPECTIVE, RANDOMISED, OPEN-LABELLED AND BLIND-ENDPOINT STUDY (PROBE-EECF TRIAL)

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Background Enhanced External Counterpulsation (EECF) has been introduced as a noninvasive, effective and safe therapy for the management of ischaemic vascular diseases. Previously, researches had been focused on the mechanisms of EECF on vascular diseases. However, clinical data in this area are still relatively in paucity.

Objective To determine whether EECF-integrated standard therapy would reduce the major adverse cardiovascular events in patients with coronary artery diseases and improve the quality of life.

Method A total of 194 patients aged from 32 to 75 years old with coronary artery diseases from Sept. 2008 to Dec. 2009 in 4 hospitals affiliated to Sun Yat-sen University were enrolled into the trial. Subjects were randomised to be allocated either to EECF plus standard therapy group or standard therapy group, and followed for 0.5 to 1.5-year. The coronary artery disease in all patients was documented by coronary angiography, or a history of prior myocardial infarction or prior coronary revascularization. Patients in standard therapy group were treated with guideline-driven therapeutic strategy, and patients in EECF group were given 36 h of EECF in addition to the guideline-driven therapeutic strategy. Repeated EECF were prescribed to patients with any reoccurred ischaemic symptoms, or new ischaemia, or no symptoms in 12 months later. Follow-up visits were performed at 1, 3, 6, 12 months and each year therefore from the inclusion.

Results The primary composite endpoints of myocardial infarction, revascularisation, readmission to hospital due to stroke and ACS occurred in 6 of 104 (5.77%) patients in EECF group compared with 9 of 91 (9.89%) in standard therapy group ($p < 0.05$). There was 1 death in both groups respectively. The incidence of minor skin damage was about 8% in EECF group, causing EECF therapy in 3 patients to be prematurely terminated.

Conclusion An EECF-integrated standard therapy significantly reduced major cardiovascular events in patients with documented coronary artery disease.

e0419 THE APPLYING OF ASPIRATION CATHETER IN REVASCULARISATION IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION

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Objectives To observe the immediate and recent treatment effects of applying the aspiration catheter in patients with ST-elevation myocardial infarction (STEMI) undergoing primary percutaneous coronary intervention (PCI).

Methods From March to June 2010, we enrolled the STEMI patients presenting with TIMI Flow Grade 0 or 1 in the infarct related artery (IRA) at baseline CAG undergoing primary PCI. The aspiration catheter (Medtronic Inc., Export?) was applied immediately to aspirate the intracoronary thrombus. Whether predilatating and/or stenting were decided by the blood flow and the condition of lesions. The patients from October 2009 to February 2010 who was diagnosed as STEMI and received non-aspiration were enrolled as control group. The immediate and recent clinical outcomes of applying the aspiration catheter were compared between the two groups.

Results There were 25 cases in Group thrombus-aspiration (2 cases of subacute stent thrombosis). After having aspirated the intracoronary thrombus using the aspiration catheter, 14 cases of STEMI recovered immediately (9 cases received direct stenting; 3 cases implanted stents after balloon predilatation, and had satisfied results; 2 cases of subacute stent thrombosis received the antithrombotic therapy, included intravenous infusion of Xinweining for 36 h in CCU immediately after recovering TIMI grade-3 flow). 10 cases recovered TIMI 1-2, 1 cases also showed no-reflow. All of the 11 cases received the balloon predilatation and stenting, only one showed slow flow, the others recovered. There was no other severe complication during and after the operation. There was no in-stent thrombosis during 1 month follow-up, and the cardiac function improved largely. There