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**e0479 IMPACTS OF SUCCESSFUL PERCUTANEOUS CORONARY INTERVENTION ON CHRONIC TOTAL OCCLUSIONS ON PATIENTS WITH HEART DYSFUNCTION**

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**Introduction** Successful percutaneous coronary intervention (PCI) for chronic total occlusion (CTO) had proven benefit for long-term survival. However, its impact on heart function of patients with heart dysfunction is uncertain. The purpose of the present study was to analyse the impacts on heart function of patients with heart dysfunction who underwent successful PCI for CTOs.

**Methods** Between June 1993 and December 2007, the clinical data of 472 consecutive patients with heart dysfunction in our center underwent PCI for CTOs were analysed. The mean age was 59.4±11.5 years. These patients were divided into two groups according to the procedural success (n=421) or failure (n=51), in order to compare the heart function between groups. A follow-up echocardiogram examination was performed 6 months after PCI.

**Results** 391 (92.9%) patients in CTO success group and 46 (90.2%) patients in CTO failure group accepted the examination of echo-chardiogram at mean time of 6.2±1.7 months. For patients undergoing success CTO revascularisation, left ventricular ejection fraction (LVEF) was increased from 44.5±3.2% to 50.2±5.7% (p<0.05), and left ventricular end-diastolic index (LVEDVI) was declined from 84.7±14.3 ml/m² to 78.4±13.7 ml/m² (p<0.05). But the LVEF and LVEDVI had no significant changes in the CTO failure group (42.5±4.0% vs 43.6±4.1% and 86.8±14.4 ml/m² vs 88.9±14.7 ml/m², both p>0.05), respectively. In addition, stage of NYHA classification was improved in most people in CTO success group (p<0.05).

**Conclusions** Successful procedures of CTO leads to the improvement of left ventricular function of patient with heart dysfunction.

**e0480 LONGTERM CLINICAL OUTCOME OF PATIENTS UNDERGOING SUCCESSFUL PERCUTANEOUS CORONARY INTERVENTION FOR CHRONIC TOTAL CORONARY OCCLUSION**

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**Introduction** There are limited data on the impact of successful chronic total occlusion (CTO) revascularisation by percutaneous coronary intervention (PCI) on long-term outcomes.

**Methods** Between June 1993 and December 2006, a total of 1532 patients having PCI for a CTO were consecutively registered. In addition to an assessment of procedural outcomes, patients were followed long-term for occurrence of major adverse cardiac events (MACE). A CTO was defined as an occlusion of the artery present for at least 3 months with Thrombolysis in Myocardial Infarction flow grade 0 or 1. Long-term survival rate was estimated by Kaplan-Meier methods.

**Results** The overall survival rate was 90.2% (1202/1352). During a median follow-up of 6.26±2.52 years (median 6 years), the estimated 10-year survival rate was 76.7% in the CTO success patients and 65.5% in the CTO failure patients, respectively (p<0.001). The MACE-free survival rate was significantly higher for CTO success patients compared with CTO failure patients (48.0% vs. 33.0%, p<0.001). The rates of coronary artery bypass (CABG) were 4.3% vs. 14.6% (p<0.001) for the CTO success and CTO failure patients, respectively. Multivariate analysis showed that procedural failure, diabetes mellitus and multivessel disease were independent predictors of death.

**Conclusions** Successful revascularisation for CTO improves long-term survival and reduces MACE rate and the need for CABG compared with failed procedure.

**e0481 EFFICACY AND SAFETY OF TIROFIBAN TREATMENT COMBINED WITH PERCUTANEOUS CORONARY INTERVENTION IN THE ELDERLY WITH ACUTE ST SEGMENT ELEVATION MYOCARDIAL INFARCTION**

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**Objective** To analyse the efficacy and safety of tirofibran treatment combined with percutaneous coronary intervention (PCI) in the elderly with acute ST segment elevation myocardial infarction prospectively.

**Methods** From May 2007 to May 2009, 104 patients who presented with acute STEMI within 12 h from onset and received successful primary PCI were enrolled into the study. All patients had angiographic evidence of initial total occlusion of infarct-related artery and finally restored to TIMI 3 flow after PCI. All the patients were grouped into the tirofiban group (n=54) and the control group (n=50) according to whether tirofiban was used or not. Assessment of myocardial perfusion included Myocardial Blush Grades (MBG), and the resolution of the sum of ST-segment elevation (sumSTR) at 90 min after the procedure. Left ventricular ejection fraction (EF) was measured one week later. Major adverse cardiac events in hospital and bleeding complications were also assessed.

**Results** Baseline clinical and angiographic characteristics of the two groups were similar. Significant higher rates of MBG 3 were observed in the tirofiban group (58.9% vs 58.0%, p<0.05). Patients received tirofiban were more likely to achieve higher sumSTR (70.3% vs 42.0%, p<0.05). Ejection fraction was also increased markedly in tirofiban group than the control group (56.2±7.6 vs 46.7±8.5, p<0.05). In-hospital major adverse cardiac events were not different between the two groups. There were slightly more minor bleeding complications in the tirofiban group compared with the control (11.1% vs 6.0%, p<0.05). No patient had major bleeding or thrombocytopaenia.

**Conclusion** Tirofiban can further ameliorate microvascular perfusion and is safe and feasible for patients with STEMI undergoing primary PCI.

**e0482 THE EFFICIENCY AND SAFETY OF THE SEEK ASPIRATION THROMBECTOMY CATHETER AND TIROFIBAN IN PRIMARY PERCUTANEOUS CORONARY INTERVENTION OF ACUTE MYOCARDIAL INFARCTION**

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**Objective** To assess the effect of the Zeeck aspiration thrombectomy catheter and tirofiban in the myocardial reperfusion and clinical prognosis in patients with acute ST-segment elevation myocardial infarction (AMI) who were undergone primary percutaneous coronary intervention (PCI).

**Methods** Eighty-four patients of AMI with thrombotic burden lesion of infarct-related artery were divided into two groups. The study group received tirofiban (n=54) and the control group (n=50) was used or not. Assessment of myocardial perfusion included Myocardial Blush Grades (MBG), and the resolution of the sum of ST-segment elevation (sumSTR) was measured one week after PCI. In-hospital major adverse cardiac events were not different between the two groups. There were slightly more minor bleeding complications in the tirofiban group compared with the control (11.1% vs 6.0%, p<0.05). No patient had major bleeding or thrombocytopaenia.

**Conclusion** Tirofiban can further ameliorate microvascular perfusion and is safe and feasible for patients with AMI undergoing primary PCI.