**IMPACTS OF SUCCESSFUL PERCUTANEOUS CORONARY INTERVENTION FOR CHRONIC TOTAL OCCLUSION ON PATIENTS WITH HEART DYSFUNCTION**

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**Introduction** Successful percutaneous coronary intervention (PCI) for chronic total occlusion (CTO) has 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 echocardiogram at mean time of 6.2±1.7 months. For patients underwent successful PCI 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 volume 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 85.9±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 PCI leads to the improvement of left ventricular function of patient with heart dysfunction.

**LONGTERM CLINICAL OUTCOME OF PATIENTS UNDERGOING SUCCESSFUL PERCUTANEOUS CORONARY INTERVENTION FOR CHRONIC TOTAL CORONARY ARTERY 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 1332 patients having PCI for a CTO were consecutively registered. In addition to an assessment of procedural outcomes, patients were followed up 1.7 months. For patients underwent PCI for CTOs were analysed. The mean age was 67.5±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 echocardiogram at mean time of 6.2±1.7 months. For patients underwent successful PCI 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 volume 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 85.9±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 PCI leads to the improvement of left ventricular function of patient with heart dysfunction.