THE IMPACT OF DIABETES ON LONG TERM FOLLOW UP OF THE PATIENTS WITH CHRONIC TOTAL OCCLUSION POST PERCUTANEOUS CORONARY INTERVENTION

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The prognosis of patients with chronic total occlusion (CTO) and diabetes mellitus treated with percutaneous coronary intervention (PCI) is not well known.

Methods: From Jan 2001 to April 2009, 105 cases of CTO successfully treated with PCI were included. 31 patients with diabetes and 74 without diabetes were compared for angiographic and clinical outcomes (mean follow up 36±21 month). Death, myocardial infarction and repeat PCI or coronary artery bypass surgery were considered as a combined primary endpoint.

Results: 25 diabetes patients (78%) and 67 non-diabetic patients (89%) were treated by drug eluting stent (p=0.37). The primary endpoint occurred in 22% (n=7) of diabetes patients, 10.8% (n=8) of the patients without diabetes (p=0.059; Log rank test). Cox regression showed patients with diabetic group and moderately or severely reduced renal impairment had significant increased risk for MACE (HR: 6.54, 95% CI 2.06 to 19.56. p<0.001).

Conclusion: Our study showed patients with CTO and diabetes have a tendency of poor prognosis after PCI, which may be largely due to the complicated renal impairment.

EFFECT OF DIFFERENT LOADING DOSES OF ATORVASTATIN ON PERCUTANEOUS CORONARY INTERVENTION FOR ACUTE CORONARY SYNDROMES

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Background: Percutaneous coronary intervention (PCI)-induced myocardial damage is a major cause of late cardiovascular events. Treatment with atorvastatin before PCI can reduce myocardial damage during the peri-PCI period. Objectives: To compare the safety and myocardial effects of different atorvastatin loading doses and dosing frequency before PCI in non-ST-segment elevation acute coronary syndrome (NSTE-ACS) patients.

Methods: 80 NSTE-ACS patients were randomly divided into four groups (20 patients/group). The control group was given 40 mg atorvastatin each night. The three loading dose groups were treated as in the control group, but were given 80 mg atorvastatin 12 h before PCI (low-load group) in combination with 40 mg atorvastatin 2–4 h before PCI (mid-load group) or 60 mg atorvastatin 2–4 h before PCI (high-load group). All patients underwent PCI within 48–72 h of admission, and received 40 mg atorvastatin for at least 1 month after PCI. Changes in myocardial markers and high sensitive C-reactive protein (hs-CRP) were analysed. Patients were followed-up for 30 days to monitor the incidence of major adverse cardiac events (MACE).

Results: No deaths or revascularisations were recorded. The incidences of MACE differed significantly between the four groups (40%, 25%, 10% and 0%, respectively, p<0.05). The incidence of MACE and cardiac troponin I (cTnl) level above the normal range, and post-PCI increases in creatine kinase-myoaucardial band (CK-MB) and hs-CRP were significantly higher in the control group than in the high-load group (all, p<0.007). The post-PCI cTnl and CK-MB levels were similar to the pre-PCI levels in the high-load group, but increased significantly in the control and low-load groups. The magnitude of the hs-CRP level increased was significantly lower in the high-load group than in the control and low-load groups. The post-PCI alanine aminotransferase levels in all four groups were significantly higher than the pre-PCI levels, but were within normal ranges. No myalgia or myasthenia was observed.

Conclusion: This study shows that short-term atorvastatin loading before PCI was well tolerated had beneficial myocardial effects in patients with NSTE-ACS.

MULTIMODALITY IMAGING EVALUATION OF FUNCTIONAL AND CLINICAL BENEFITS OF PERCUTANEOUS CORONARY INTERVENTION ON PATIENTS WITH CHRONIC TOTAL OCCLUSION LESION

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Aims: To determine the effects of percutaneous coronary intervention (PCI) on cardiac perfusion, cardiac function and quality of life in patients with chronic total occlusion (CTO) lesion in left anterior descending (LAD) coronary artery.