THE EFFECT OF SMOKING STATUS ON PROGNOSIS OF PATIENTS WITH ACUTE ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION AFTER EMERGENCY PERCUTANEOUS CORONARY INTERVENTION

doi:10.1136/heartjnl-2012-302920.d.39

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Objectives The aim of the study was to evaluate whether the prognosis of patients with acute ST-segment elevation myocardial (ASTEMI) may differ according to smoking status after percutaneous coronary intervention (PCI).

Methods The consecutive patients with ASTEMI who were admitted to 20 hospitals between May 2009 and May 2010 in LiaoNing province. Patients were divided into smoker group and non-smoker group on admission. Basic demographic, treatment data and clinical outcome were compared between groups. Survival curves, log-rank test and Cox proportional hazard analysis were estimation.

Results 402 patients were enrolled, the rate of smoking was 56.7%. 228 patients in smoker group and 174 patients in non-smoker group. The smoker group were significantly younger than the non-smoker group (56.47±10.90 years vs 64.86±11.97 years, p<0.001). The percentage of man was significantly higher in smoker group than non-smoker group (94.7% vs 61.5%, p<0.001). The non-smoker group had significantly higher rate of myocardial infarction, hypertension and diabetes than the smoker group (p<0.05). The non-smoker group had significantly higher rate of multi-vessels disease than smoker group, the smoker group was associated with the increased rate of 1 vessel disease compared to non-smoker group (p=0.04). In-hospital and follow-up mortality and the cumulative survival rate were no significant difference between 2 groups. The mortality was significantly related to age (HR:1.118, 95% CI 1.069 to 1.168, p<0.001), body mass...
index (HR:1.113, 95% CI 1.107 to 1.219, p=0.02) and smoking (HR:3.549, 95% CI 1.305 to 9.650, p=0.01).

Conclusions The patients with ASTEMI after PCI, smokers were much younger, lower comorbidities and simpler lesions, but the prognosis of smokers and non-smokers was no significant difference; age, body mass index and smoking were the independence risk factors of mortality.