ACUTE CORONARY SYNDROME

GW26-e0003
A simple risk score for prediction of cardiac rupture in patients with ST-elevation myocardial infarction
Geng Qian, Yundai Chen, Feng Cao, Zhenhong Fu
Department of Cardiology, Chinese People’s Liberation Army General Hospital

OBJECTIVES Cardiac rupture is a potentially fatal mechanical complication of ST-elevation myocardial infarction (STEMI). The aim of this study was to develop and validate a practical risk score to predict the cardiac rupture after the STEMI.

METHODS A total of 11234 consecutive STEMI patients from 6 centers in China were studied in our trial, we firstly developed a simplified fast-track risk model from 7455 STEMI patients, and then prospectively validated the score system using receiver-operating characteristic (ROC) curves with data from 3779 STEMI patients.

RESULTS The incidence of cardiac rupture was 2.14% (240/11234), but the thirty-day mortality was up to 89.6%. We developed a risk model which had 7 independent baseline predictors (female sex, advanced age, anterior myocardial infarction, delayed admission, elevated white blood cell count, anemia, model c-statistic=0.74). The cardiac rupture risk score differentiated patients with thirty-day rate of cardiac rupture ranging from 0.3% to over 10%. The risk score system demonstrated a good risk predictive value with a c-statistic of 0.78 (95% CI 0.73-0.84) in validation set based on ROC analysis. Beta-blockers could lower the risk of cardiac rupture for the STEMI patients with high risk (14.4% vs. 18.6%, p<0.001). Intra-aortic balloon pump (IABP) is also associated with the decreased incidence of cardiac rupture for the STEMI patients with high risk (12.4% vs. 16.8%, p<0.001).

CONCLUSIONS A simple risk score system based on 7 baseline clinical variables could identifies patients at increased risk for CR, for whom appropriate treatment strategies can be implemented.

GW26-e0500
Expression characteristics of neutrophil and mononuclear-phagocyte related genes in the SAP and AMI stages of coronary artery disease.
Chunrong Li, Lemin Wang
Department of Cardiology, Tongji Hospital, Tongji University School of Medicine, Shanghai, China

OBJECTIVES To investigate expression differences of neutrophil and mononuclear-phagocyte related genes mRNA among acute myocardial infarction (AMI), stable angina pectoris (SAP) and control groups, and then discuss their expression characteristics in the SAP and AMI stages of coronary artery disease.

METHODS Whole Human Genome Oligo Microarrays were applied to stages of coronary artery disease. The use of HMG-CoA reductase inhibitor (statins) use in acute coronary syndrome (ACS) patients with hepatitis B Virus and normal liver function.

RESULTS In total, 22 patients exhibited MACEs during follow-up (mean 95±64 days, range 2 to 249 days). Median IMI level was higher for patients with MACEs than MACE-free survivors (390.3 [range 127.2 to 1772.2] vs. 308.9 [range 73.0 to 2121.9] pg/ml, p<0.001). The area under the receiver-operating characteristic curve for IMI and N-terminal pro-B-type brain natriuretic peptide (NT-proBNP) did not significantly differ (0.75 and 0.78, both p<0.001, respectively; p=0.792). On Cox regression analysis with cardiovascular risk variables and NT-proBNP, the risk of MACEs increased 3.89-fold (95% confidence interval 1.46-10.33; p=0.006) with high IMI level (upper tertile >362.4 vs. lower 2 tertiles ≤362.4 pg/ml).

CONCLUSIONS IMI might be a promising prognostic biomarker for predicting MACES in patients with NSTE-ACS.

GW26-e1599
The use of statins maybe is safety in acute coronary syndrome patients with hepatitis B Virus
Zhenjun Wang, Jieyun Liu, Wen Yang, Chenchen Li, Yaoxin Wang, Lei Qin
The Kaifeng central Hospital

OBJECTIVES To investigate the safety of HMGCoA reductase inhibitor (statins) use in acute coronary syndrome (ACS) patients with hepatitis B Virus.

METHODS 108 ACS patients with hepatitis B Virus and normal liver function aged 45-70 years provided the therapy with or without HMG-CoA reductase inhibitor (statin) according to 2:1 random distribution. The level of blood lipid (including triglyceride, total cholesterol, LDL-c, HDL-c), the liver function (including ALT, AST, γ-GT and bilirubin), creatase, renal function and the copy of hepatitis B Virus were assessed at baseline, and after 1, 3, 6 month of atorvastatin (20mg/d) treatment. The experiments comply with the current law of China.

RESULTS A significant reduction was revealed in serum triglyceride, total cholesterol, LDL-c, and significant increase in serum HDL-c level in group with atorvastatin at 1, 3, 6month respectively (all P<0.05). There is no difference in ALT, AST, γ-GT, bilirubin, creatase, and the copy of hepatitis B Virus in the case group received atorvastatin (20mg/d) at (all P>0.05).

CONCLUSIONS The use of HMG-CoA reductase inhibitor (statins) maybe is safety in acute coronary syndrome patients with hepatitis B Virus and normal liver function.