Conclusion The LT-B4 level in ACS patients elevated significantly which might be positive correlated with the severity of coronary artery disease, and could promote the formation of vulnerable plaque. Plasma Leukotriene-B4 testing can improve the accuracy of detection of coronary artery plaque by 64-slice spiral CT in patients with ACS, and have certain prediction effect of the diagnosis of the ACS and the judgements of coronary lesions. Currently, leukotriene receptor antagonist have been widely used in allergic inflammation in the respiratory system, but the clinical application in atherosclerotic disease is still being studied. Therefore, in-depth study the molecular mechanisms of 5-lipoxygenase /leukotriene pathway in the process of acute coronary syndrome may play an important role in the prediction and control of ACS and the vulnerable plaque.

e0437 THE CHANGES AND SIGNIFICANCE OF COMBINED DETECTION MCP1 AND RANTES CHEMOTACTIC FACTORS IN PATIENTS WITH ACUTE CORONARY SYNDROME

doi:10.1136/hrt.2010.208967.437

Yang Lixia, Qi Feng, Guo Ruiwei, Wang Xianmei, Guo Chuanming. *Department of Cardiology Kunmin General Hospital of Chinese Plakunming*

Objective To investigate implication of combination detection MCP-1 and RANTES chemotactic factors in patients with ACS compare to the traditional detection of hs-CRP. And to investigate the significance of the combined detection of a variety of chemokines in early identification, risk stratification, prognosis of ACS.
Methods The 300 patients were divided into Coronary Heart Disease (CHD) group (n=240) and control group (n=60) according to the Coronary Angiography (CAG), and CHD group were divided into acute coronary syndrome (ACS) group (n=180) and stable angina pectoris (SAP) group (n=60). The severity and extent of coronary lesions was analysed by CAG and typified by means of Gensini coronary score system. Linked immunosorent assay was used to measure the concentration of MCP-1, RANTES and hs-CRP. At the same time venous blood samples were collected and total cholesterol (TC) triglyceride (TG), high density lipoprotein cholesterol (HDL-C), low density lipoprotein cholesterol (LDL-C), and red blood cells, white blood cells, platelets count, fibrinogen, and liver and kidney function were detected by automatic biochemical analyser determination.
Results Significantly increasing of MCP-1, RANTES, hs-CRP concentration, blood glucose, LDL-C levels were observed in ACS group compared to the SAP group and the control group ($p < 0.05$). And significantly decreasing of HDL-C concentration in ACS group were observed compared to the SAP group and control group. The accuracy of ACS prediction by combination detection MCP-1 and RANTES according to logistic regression equation is much better than the traditional detection of hs-CRP (90.6% vs 82.8%).
Conclusions Combined with clinical assessment of the actual occurrence of cardiovascular disease using a variety of risk factors, we believe that coronary heart disease and acute coronary syndrome is a complex network systems regulated by multi-element, multi-factor, looking for a single factor as markers for diagnosis of coronary heart disease ACS may be limited. Combined detection of a variety of cytokines which involved in the occurrence of coronary heart disease, and through comprehensive analysis of a number of cytokines to predict cardiac events may more accurately reflect the nature of acute coronary syndrome. MCP-1, RANTES chemokine play a more specific role in monocytes /macrophages, they play a key role in the development and rupture of vulnerable plaque in coronary heart disease, especially in ACS. The effect of combination detection chemotactic factors to predict ACS is better compare to general hs-CRP measurement, multi-chemotactic factors' combination detection maybe come to markers of early identification of ACS.

e0438 BONE MARROW CELL THERAPY IMPROVES SYSTOLIC FUNCTION WHEREAS HAS NO EFFECT ON REMODELLING OF LEFT VENTRICULAR IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION: A META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS

doi:10.1136/hrt.2010.208967.438

[1]Bai Yongyi, [2]Sun Lan, [3]Sun Tao, [4]Ye Ping. *[1]Department Of Geriatric Cardiology, Chinese Pla General Hospital; [2]National Center For Pharmaceutical Screening; [3]Institute Of Materia Medica; [4]Chinese Academy Of Medical Sciences & Peking Union Medical College*

Objectives The objective is to perform a meta-analysis of clinical trials that investigated the effects of bone marrow cell (BMC) therapy on left ventricular (LV) function and LV remodelling in patients after acute myocardial infarction (AMI).
Background Intracoronary injection of BMCs in the acute phase of myocardial infarction has been proposed to replace cardiomyocytes lost and prevent deleterious pathological remodelling after myocardial infarction. Previously published trials have investigated the effects of cell therapy on LV function and remodelling in AMI patients. However, the sample size of these studies is small and the conclusions are inconsistent.
Methods Trials were identified in Cochrane Library, EMBASE, and PubMed databases, reviews, and reference lists of relevant papers. The weighted mean difference (WMD) was calculated for net changes in LV ejection fraction (LVEF) and LV end-diastolic volumes (LVEDV) by using random or fixed-effect models.
Results Ten randomised controlled trials (12 comparisons) with a total of 814 participants were included. In an overall pooled estimate, compared with the control group, BMCs therapy significantly improved the LVEF change from baseline to follow-up (WMD: 3.79%, 95% CI 2.4% to 5.7%, $p<0.001$). However, compared with the control group, stem cell therapy did not influence the LVEDV changes from baseline to follow-up (WMD: −1.76 ml, 95% CI −4.61 to 1.08 ml, $p=0.233$).
Conclusion This meta-analysis suggests that cell therapy improves left ventricular contractility, whereas has no effect on LV remodelling.

e0439 RELATIONSHIP BETWEEN N-TERMINAL PRO-B-TYPE NATRIURETIC PEPTIDE AND GRACE RISK STRATIFICATION

doi:10.1136/hrt.2010.208967.439

Han Zhao, Wenxian Liu. *Capital Medical University Affiliated Beijing Anzhen Hospital*

Objective To study the relationship between NT-proBNP levels obtained on admission and GRACE risk score as well as risk stratification in patients with NSTEACS (UA/NSTEMI).
Methods We enrolled 126 patients with unstable angina or Non-ST-segment elevation myocardial infarction that admitted in our hospital from June of 2009 to May of 2010, 84 of the patients with UA and 42 of them with NSTEMI. Then measured their concentration of plasma NT-proBNP, cTnI, CK-MB, liver and kidney function, blood coagulation function and other Routine laboratory tests on admission. All the patients received echocardiography evaluation and 124 of them underwent angiographic examination. All the patients received risk assessment based on Clinical data, the Global Registry of Acute Coronary Events (GRACE) score which include 8 variables (age, heart rate, systolic blood pressure, serum creatinine level, Killip class at admission, presence of ST-depression, elevated cardiac biomarkers, cardiac arrest)were used to evaluate Clinical Risk. After calculate the GRACE score, the patients were stratified into three levels. Analyse the relationship between NT-proBNP level and GRACE risk score in patients with NSTEACS.