[gw22-e0542] INVESTIGATION THE CHANGES OF THE PLASMA MIR-126 AND MIR-143 IN PATIENTS WITH CORONARY HEART DISEASE

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Objectives Substaintial evidence has demonstrated that microRNAs are involved in the development of atherosclerosis and acute coronary syndrome (ACS), including unstable angina (UA) and acute myocardial infarction (AMI). However, the roles of microRNAs remain controversial in ACS patients, and little is known about the role of plasma MicroRNA Profiling in patients with coronary artery disease (CAD). The purpose of this study was to observe miR-126, miR-143 expression in patients with ACS, stable angina pectoris (SAP) and non-coronary heart disease (NCHD).

Methods We collected the fasting venous blood samples of 53 cases with acute coronary syndrome (ACS) (acute myocardial infarction 22 cases/unstable angina pectoris 31 cases), 23 cases of stable angina pectoris (SAP) and 20 cases of non-coronary heart disease (NCHD). The relative expresssion of microRNA in their plasma were measured by real-time PCR, and the related clinic parameters were collected and the correlation between microRNA and clinic parameters were also analysed.

Results miR-126 expression in SAP is higher than, and NCHD groups, with statistical significance ($p<0.05$), there were no significant difference among AMI, UAP and NCHD groups; miR-143 expression in AMI group was significantly higher than UAP, SAP and NCHD groups, with statistical significance ($p<0.05$); there were no significant difference among UAP, SAPand NCHD groups, with no statistical significance ($p>0.05$); miR-126 expression in plasma was negatively correlated with peripheral blood WBCs count CK, CKMB, MYO was no significant ($r=-0.022$, -0.083, -0.054, -0.063, $p=0.842$, 0.483, 0.664, 0.602) miR-143 expression in plasma was positively correlated with plasma level of CK, CKMB, MYO ($r=0.220$, 0.336 and 0.300, respectively), with statistical significance ($p=0.048$, 0.003 and 0.010, respectively), but its positive correlation with peripheral blood white blood cells (WBCs) count, CHO, HDL, LDL were no significant ($p>0.05$).

Conclusion Plasma miR-126 may be a novel biomarker for SAP, and plasma miR-143 may be a novel biomarker for AMI, which may provide insights into the mechanisms underlying culprit plaque in coronary artery disease patients.