

[gw22-e0409]

THE DETECTION OF SERUM sLDL-C IN THE CAD PATIENTS AND CLINICAL APPLICATION

Wang Liansheng, Zhuang Xing, Fan Yuqi, Chen Fuxiang *Shanghai Ninth People's Hospital Affiliated to Shanghai Jiaotong University School of Medicine, Shanghai, China*

10.1136/heartjnl-2011-300867.719

Objective To evaluate the level of small dense LDL cholesterol (sdLDL-C) of the coronary artery heart disease patients by heparin-Mg precipitation method and clinical application.

Methods The 146 coronary artery heart disease (CAD) patients are divided into two groups according to with type II diabetes mellitus (T2DM) or not. The disease control group includes the 46 arrhythmia patients and the healthy control group consists of the 161 healthy persons. The biochemistry method is used to measure total cholesterol, triglyceride, HDL-C, LDL-C and fast plasma glucose. The serum sdLDL-C is detected by heparin-Mg precipitation method. The SPSS software is used to analyse the difference of the items among the groups and the distribution of sdLDL-C in healthy controls and CAD patients.

Results The serum concentrations of TC, TG in CAD patients are higher than that in the healthy control group and disease control group with $p < 0.05$. The level of HDL-C in CAD patients is lower than that in the healthy control group and disease control group with $p < 0.05$. The serum sdLDL-C in the patients with CAD and T2DM is significantly higher than that in the CAD without T2DM, 0.48 (0.26) mmol/l versus 0.42 (0.20) mmol/l, $p < 0.05$. The 95th percentile of the serum sdLDL-C in healthy controls is 0.62 mmol/l, which is its reference interval in the present study. The 26.8% of CAD patients with LDL-C < 2.59 mmol/l have higher serum sdLDL-C than 0.62 mmol/l, and they are characteristic of higher TC, TG and lower HDL-C.

Conclusion The detection of serum sdLDL-C is valuable in helping to better understand the residual cardiovascular risk in patients with CAD, especially the CAD plus DM patients.