

CHOLESTEROL AND LIPOPROTEINS IN PATIENTS REFERRED TO ATHEROSCLEROSIS

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Objectives Evidence is emerging that serum soluble cellular adhesion molecules contributes to the development and progression of atherosclerosis and cardiovascular disease. Little is known, however, regarding an association between soluble cellular adhesion molecules levels and total cholesterol and lipoproteins in humans.

Methods We investigated the relationship between serum soluble cellular adhesion molecules and total cholesterol and lipoproteins in 106 cases patients referred to atherosclerosis (AS), among which 56 cases were diagnosed as unstable angina pectoris (UAP) and 50 cases as acute myocardial infarction (AMI), moreover, 50 cases were selected as normal people. ELISA was used to detect serum protein levels of soluble intercellular adhesion molecule type 1 (sICAM-1), soluble vascular cell adhesion molecule type 1 (sVCAM-1) and endothelial leukocyte adhesion molecule (E-selectin) of patients. Serum total cholesterol (TC), triglycerides (TG), low-density lipoprotein cholesterol (LDL-C) and high-density lipoprotein cholesterol (HDL-C) were measured for analyses.

Results Compared with normal people, the expression of serum sICAM-1, sVCAM-1 and E-selectin of UAP and AMI patients was obviously increased, and there were higher expression in AMI patients than in UAP patients. Pearson correlation analysis as well as age and gender adjusted partial correlation analysis revealed a positive association between sICAM-1, sVCAM-1 and E- with TG and LDL-C and a negative association with HDL-C, but not with TC.

Conclusions Soluble cellular adhesion molecules might be involved in the process of atherosclerosis; our findings warrant further interventional studies which should evaluate anti-atherosclerotic effects of soluble cellular adhesion molecules blocking treatment strategies in humans.