

16th World Cardiology Congress

December 08-10, 2016 Dubai, UAE

Soluble CD36 concentrations are not associated with cardiovascular risk factors in middle-aged subjects

Mohammad Alkhatatbeh, Nehad Ayoub, Nizar Mhaidat, Nesreen Saadeh and Lisa F Lincz

Jordan University of Science and Technology, Jordan

Cluster of differentiation 36 (CD36) is involved in the development of atherosclerosis by enhancing macrophage endocytosis of oxidized low-density lipoproteins and foam cell formation. Soluble CD36 (sCD36) was found to be elevated in type 2 diabetic patients and possibly acted as a marker of insulin resistance and atherosclerosis. In young subjects, sCD36 was associated with cardiovascular risk factors including obesity and hypertriglyceridemia. The present study was conducted to further investigate the association between plasma sCD36 and cardiovascular risk factors among middle-aged patients with metabolic syndrome (MetS) and healthy controls. sCD36 concentrations were determined by enzyme-linked immunosorbent assays (ELISA) for 41 patients with MetS and 36 healthy controls. Data for other variables were obtained from patient medical records. sCD36 concentrations were relatively low compared to the majority of other studies and were not significantly different between the MetS group and controls ($P=0.17$). sCD36 was also not correlated with age, body mass index, glucose, lipid profile, serum electrolytes and blood counts. sCD36 was not significantly different between subjects with obesity, hyperglycemia, dyslipidemia, hypertension or cardiovascular disease, and those without these abnormalities ($P>0.05$). The inconsistency between results reported in the present study and other studies may be unique to the study population or be a result of the lack of a reliable standardized method for determining absolute sCD36 concentrations. However, further investigations are required to assess CD36 tissue expression in the study population and to assess the accuracy of various commercially available sCD36 ELISA kits. Thus, the availability of a standardized simple sCD36 ELISA that could be performed in any basic laboratory would be more favorable to the specialized flow cytometry methods that detect CD36+ microparticles if it was to be used as a biomarker.

Biography

Mohammad Alkhatatbeh has a PhD in Experimental Pharmacology and he is currently working as an assistant professor at Clinical Pharmacy Department in Jordan University of Science and Technology, Irbid, Jordan. He is interested in studying soluble CD36 as a possible biomarker of insulin resistance, Type 2 Diabetes and its association with cardiovascular risk factors and have some publications in the same field.

khatatbeh@just.edu.jo

Notes: