

Cross influence of homocysteine and other risk factors in development and extent of coronary artery disease

N Zlatanovikj

Private Medical Practice Cor-Medico, Republic of Macedonia

Homocysteine and its relation to coronary artery disease (CAD) has been known and thoroughly investigated for decades. And while the influence of its increased levels is undoubted in the development of CAD, the treatment of hyperhomocystinemia as a risk factor in CAD remains at least elusive. Our study was the first one aiming to evaluate homocysteine levels in Macedonian population. 165 patients were evaluated, divided into 3 groups based on their 10 years risk for CAD based on ATP and Framingham criteria. The control group with CAD risk less than 10%, the high risk group with CAD risk more than 20% and the CAD group where patients had diagnosed coronary disease.

All patients were evaluated for risk factors and markers: fasting homocysteine, sex, age, smoking status, hypertension, family history of CAD, blood lipids, white blood cells, BUN, creatine and fasting blood sugar.

Mean value of homocysteine in the control group was 13.02 $\mu\text{mol/l}$, in the high risk group the level was 16.0 $\mu\text{mol/l}$ ($p=0.04$) and for the CAD group it was 15.03 $\mu\text{mol/l}$ ($p=0.02$).

In the high risk group, homocystein was correlated with the total CAD risk ($p=0.04$) and the white blood cells count ($p=0.02$). In males from the group homocysteine correlated with the total CAD risk ($p=0.001$), total cholesterol ($p=0.001$) and creatinin $p=0.001$).

In the CAD group, homocysteine level correlated only with the high grade coronary occlusion of 95% of arterial lumen ($p=0.04$).

Biography

Nenad Zlatanovikj has graduated at the Faculty of Medicine at the University of Cyril and Methodius in Skopje, Republic of Macedonia. He has finished his residency in Internal Medicine in 2003. He completed his residency in Cardiology in 2009 and in the same year he obtained his Masters Degree. He is author and co-author of number of papers dealing with cardiac pacing and markers of coronary heart disease. He has worked at the University Cardiology Clinic from 1998-2010, and he also worked at the Faculty of Medicine in Skopje as Teaching Assistant in Internal Medicine. Since 2010, he works in his own private practice.

zlatanovicn@yahoo.com