



Elevated values of cardiac troponin I in patients with coronary disease verified with computed tomography coronary angiography, preliminary results

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Introduction: Cardiac troponin I (cTnI) has been shown to have predictive value for cardiovascular incidents in the general population. With the newest 5th generation cTn tests it is possible to measure its concentration in most of population^{1,2}. The aim of this study is to investigate the correlation between plasma levels of cTnI measured by Beckman Coulter high sensitivity test and presence of cardiac pathology (mostly coronary artery disease and heart failure).

Patients and Methods: All 100 patients who underwent computed tomography coronary angiography in Dubrava University Hospital from 14th February until 28th June 2022 were included in study. 75 patients had no cardiac pathology (median age 58 y [IQR 48-85], 49% were male) and 25 patients had heart failure or known/new verified coronary artery disease (median age 63 y [IQR 57-72], 60% were male). cTnI was measured using chemiluminescent high sensitivity Beckman Coulter cTnI test.

Results: For statistical analysis, we used the non-parametric Mann Whitney U test. The median value of cTnI concentration in the population of patients without verified cardiac pathology is 3.9 ng/L [IQR 2.9-5.15], while the median value of cTnI in patients with heart disease is 7.4 ng/L [IQR 4.2-11.5] P=0.2113.

Conclusion: Although cTnI values are slightly higher in patients with cardiac pathology compared to the control group, the difference is not statistically significant. The above can be explained by the good control of cardiovascular risk factors, which is why the most of concentration of cTnI in heart disease group overlaps with the values in the control group. cTnI could be a good screening marker for patients with increased cardiovascular risk.

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LITERATURE

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