



Non Invasive Imaging (Echocardiography, Nuclear, PET, MR and CT)

IMPACT OF CARDIAC TROPONIN I ON THE PRESENCE OF THE CORONARY ARTERY PLAQUE IN RHEUMATOID ARTHRITIS PATIENTS

Poster Contributions

Poster Hall, Hall C

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Introduction: The presence of accelerated coronary artery disease in rheumatoid arthritis (RA) was previously reported. The goal of this study was to investigate if using high sensitivity cardiac troponin I (hs-cTnI) identifies patients at higher coronary atherosclerosis risk.

Method: A total of 146 asymptomatic RA patients (average age 53±11 years, women 87.6%) without history of ischemic heart disease who underwent coronary CT angiography were enrolled in the study. Serum high sensitivity cardiac troponin I (hs-cTnI) was quantified for each individual at the time of CT. The association between hs-cTnI and incident coronary artery plaque was assessed by a multivariate regression model; hs-cTnI > 1.5 pg/ml was defined as a threshold of high risk.

Results: Median cardiac troponin I was 1.0 pg/ml. In our sample 71% of patients had any coronary artery plaque. High levels of serum cardiac troponin (hs-cTnI >1.5 pg/ml) was associated with a significantly higher risk of coronary plaque presence (OR 5.3; 95%CI 1.5, 18.1; p=0.005 crude model); The risk remained significant after adjustments for age, gender, race, diabetes, family history CAD, high cholesterol, smoking and other traditional CAD risk factors (OR 7.4; 95%CI 1.7, 29.4; p=0.008). Notably the above results were more robust in over 50 years old patients.

Conclusions: We identified a significant association between increased cardiac troponin I levels and the presence of any coronary artery plaque in a cohort of RA patients. A threshold of hs-cTnI > 1.5 pg/ml may facilitate cardiovascular risk stratification in patients with RA.