

Total Longitudinal Displacement (tLoD) of the Common Carotid Artery (CCA) Does Not Differ between Patients with Moderate or High Cardiovascular Risk (CV) and Patients after Acute Myocardial Infarction (AMI)

Authors : P. Serpytis, K. Azukaitis, U. Gargalskaite, R. Navickas, J. Badariene, V. Dzenkeviciute

Abstract : Purpose: Total longitudinal displacement (tLoD) of the common carotid artery (CCA) wall is a novel ultrasound marker of vascular function that can be evaluated using modified speckle tracking techniques. Decreased CCA tLoD has already been shown to be associated with diabetes and was shown to predict one year cardiovascular outcome in patients with suspected coronary artery disease (CAD) . The aim of our study was to evaluate if CCA tLoD differ between patients with moderate or high cardiovascular (CV) risk and patients after recent acute myocardial infarction (AMI). Methods: 49 patients (54±6 years) with moderate or high CV risk and 42 patients (58±7 years) after recent AMI were included. All patients were non-diabetic. CCA tLoD was evaluated using GE EchoPAC speckle tracking software and expressed as mean of both sides. Data on systolic blood pressure, total and high density lipoprotein (HDL) cholesterol levels, high sensitivity C-reactive protein (hsCRP) level, smoking status and family history of early CV events was evaluated and assessed for association with CCA tLoD. Results: tLoD of CCA did not differ between patients with moderate or high CV risk and patients with very high CV risk after MI (0.265±0.128 mm vs. 0.237±0.103 mm, p>0.05). Lower tLoD was associated with lower HDL cholesterol levels (r=0.211, p=0.04) and male sex (0.228±0.1 vs. 0.297±0.134, p=0.01). Conclusions: tLoD of CCA did not differ between patients with moderate or high CV risk and patients with very high CV risk after AMI. However, lower CCA tLoD was significantly associated with low HDL cholesterol levels and male sex.

Keywords : total longitudinal displacement, carotid artery, cardiovascular risk, acute myocardial infarction

Conference Title : ICPHCMS 2015 : International Conference on Prehypertension, Hypertension and Cardio Metabolic Syndrome

Conference Location : Venice, Italy

Conference Dates : April 13-14, 2015