Abstract: P926

High prevalence of left ventricular systolic dysfunction assessed by speckle tracking in asymptomatic HIV patients

Authors:
C Kapelios¹, M Bonou¹, D Basoulis¹, C Masoura¹, E Athanasiadi¹, M Papadopoulou¹, M Skouloudi¹, M Psichogiou¹, J Barbetseas¹, ¹Laiko University General Hospital - Athens - Greece,

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Background: Cardiomyopathy presenting in people living with HIV (PLWHIV) has been attributed to the effect of inflammation, opportunistic infections, myocyte invasion and cardiac steatosis, while peripheral artery disease (PAD) is linked to immune activation, abnormalities in lipid metabolism, and traditional risk factors. The diagnosis of subclinical myocardial dysfunction and PAD could enable prompt implementation of therapeutic measures. However, data available to date on the specific topic are limited.

Methods: We investigated the association between global longitudinal strain (GLS) and a) patient history, b) baseline characteristics, c) carotid intima-media thickness (IMT) and presence of carotid atheromatic plaque(s) d) temperature difference (?T) along each carotid artery, measured by microwave radiometry (MWR) and e) basic blood panel measurements, including high-sensitivity troponin-T(hsTnT) and NT-proBNP in PLWHIV and no history of cardiovascular disease.

Results: We prospectively enrolled forty asymptomatic PLWHIV on long-term highly active antiretroviral therapy. Thirty-seven (93%) were men, while mean age was 52 ± 13 years. Subclinical left ventricular systolic dysfunction(SLVSD), defined as a value of GLS> -18.7%, was present in 35% of patients. GLS value was significantly associated with age (r=0.410,P=0.013), history of hyperlipidemia (r=0.370,P=0.026), body mass index (r=0.462,P=0.005), waist circumference (r=0.471,P=0.007) and right bulb IMT (r=0.390,P=0.036). hs-TnT levels were significantly associated with age (r=0.513, P=0.001), CD4 count (r=-0.357,P=0.025), serum creatinine (r=0.338,P=0.035) and the presence of carotid plaque (r=0.374,P=0.038). NT-proBNP levels were significantly associated with history of diabetes (r=0.336,P=0.048) and serum creatinine (r=0.548,P=0.001).

No significant associations were demonstrated between carotid ?? and other parameters.

Conclusion: Our results indicate that apart from age, a dysmetabolic component, expressed by higher BMI and history of hyperlipidemia, may be implicated in the pathogenesis of SLVSD, which may lead to cardiomyopathy, in PLWHIV.