**CORONARY CALCIFICATIONS ARE NOT A MARKER OF CARDIAC ALLOGRAFT VASCULOPATHY IN PATIENTS AFTER HEART TRANSPLANTATION**

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Background: Cardiac allograft vasculopathy (CAV) still remains a leading cause of morbidity and mortality after heart transplantation (HTX). This study sought to evaluate the clinical feasibility of dual-source computed tomography calcium scoring (DSCTCS) for the detection of CAV in particular as follow-up examination after HTX.

Methods: An overall of 176 patients (139 male; 37 female; mean age: 50.0±12.4 years; range: 19–75 years) underwent DSCTCS (Definition, Siemens Medical Solutions, Forchheim, Germany) 1±2 days before annual routine invasive coronary angiography (ICA). Mean post-transplant time was 73.3±50.5 months (range: 11-231 months). The results of DSCTCS were compared to the results of ICA.

Results: Coronary calcium was detected in 106 patients (60.2%; 87 male) and excluded in 70 patients (39.8%; 52 male). According to ICA results, in 83 patients (47.2%; 68 male) CAV was excluded and detected in remaining 93 patients (52.8%; 71 male). An overall of 13 patients needed revascularisation (PTCA/Stenting) after diagnostic ICA. Adding the results of DSCTCS no statistically significant difference in patients without CAV (16.8±29.7; range: 0–190) and patients with detected CAV (32.1±65.5; range 0–385) was observed (p= 0.119). Moreover in 4/13 (30.8%) patients with server CAV needing intervention coronary calcium deposits were excluded. Sensitivity and specificity for detection of CAV using a DSCTCS threshold of >0 was calculated as 69.9%, and 48.4%, respectively.

Conclusion: DSCTCS is not a valuable non-invasive diagnostic test for the detection of CAV after HTX. We hypothesize that coronary calcifications represent pre-existing or independently developing de-novo traditional coronary atherosclerosis rather than CAV.