clinical myocardial injuries, especially in the setting of ischemia. The aim of this study was to study speckle tracking longitudinal strain for early risk stratification in NSTEMI with no sign of myocardial dysfunction (left ventricular ejection fraction (LVEF) > 50% and no abnormality of regional wall motion).

Methods and results: 40 patients were prospectively examined by echocardiography immediately prior to coronary angiography after a first hospitalisation for NSTEMI. Global longitudinal strain (GLS) was provided semi automatically and we calculated territorial longitudinal strains (TLS) on the basis of the perfusion areas of the 3 major coronary arteries, by averaging all segmental peaks systolic strain values within each territory. The subjects were classified into three groups depending on the extent of CAD: no significant CAD, one-vessel and two-vessel CAD (excluding left main [LM] or proximal left anterior descending [LAD] arteries), three-vessel CAD or LM and proximal LAD arteries involvement (qualified as severe CAD). A significant worsening of GLS depending on the extent of CAD was found (−21±1.6% [no significant CAD] vs. −19.9±1.8% [1 or 2 – vessel disease] vs. −7.2±2.2% [severe CAD]) p= 0.002). Multivariate analyses have confirmed that only GLS (OR: 5.62; 95%CI: 1.40 to 22.60 p=0.015) prognosticates severe CAD. Receiver operating characteristic (ROC) curves analyses of GLS showed a cut-off value of −18%, to identify patients with severe CAD.

Conclusion: This study confirms that in NSTEMI with no sign of myocardial dysfunction, GLS enables rapid risk stratification and predicts severe CAD with excellent accuracy.

Abstract 0304 – Figures

0325

Early detection of cardiac involvement in sarcoidosis with 2D speckle tracking echocardiography

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Background: Cardiac sarcoidosis (CS) is associated with high morbidity and sudden death. Currently, cardiac magnetic resonance (CMR) is the most sensitive method for the diagnosis of CS, however as CMR is being positive relatively late, new imaging methods to improve the early diagnosis of CS are lacking.

The aim: of this study was to assess the role of left ventricular (LV) strain estimated by 2D speckle tracking imaging in patients with newly diagnosed sarcoidosis without cardiac involvement according to the current guidelines.

Methods and Results: We performed a prospective cohort study including 10 patients with newly diagnosed sarcoidosis and normal cardiac function as assessed by classic echocardiography and CMR and 10 healthy age- and gender- matched controls. All patients underwent a comprehensive LV strain echocardiographic study. Speckle tracking analysis was performed by 2 experienced cardiologists blinded to each other and to clinical data. Mean age of patients was 53±14 years old (5 women). All patients presented mediastinal lymphadenopathy, 1 had renal involvement and 4 had pulmonary manifestations. Compared with controls, LV longitudinal strain was reduced: long axis...
were not significantly different in patients and controls. Mean T2 value was compared to controls (P < 0.001 in all segments). Mean post contrast T1 values were significantly higher in the 6 regions of interest in our cohort of 17 controls.

utes after administration of 0.2 mmol/kg of Gadoteric acid and compared to unenhanced T1, T2 and T1-mapping sequence. Segmental and global T1 values were measured before and 15 min-

scanner (Siemens) including T1 mapping using a shortened modified look-

(QUICKSILVER") after the treatment of AMR (plasmapheresis, IV in-

function) performed a CMR study one week (for the first patient) and 3 weeks (for the second patient) after the treatment of AMR (histopathological and immunophe-

nique to identify diffuse myocardial fibrosis. The purpose of this study was to assess T1 mapping in patients with AMR.

Method: 2 patients with clinical AMR (histopathological and immunophe-
notypic findings, presence of donor-specific allo antibodies and allograft dys-
function) performed a CMR study one week (for the first patient) and 3 weeks (for the second patient) after the treatment of AMR (plasmapheresis, IV Immunoglobulins and Rituximab). Images were acquired on a 1.5 Tesla scanner (Siemens) including T1 mapping using a shortened modified look-

locker inversion-recovery sequence and T2 mapping in a matched mid-ven-

tricular short axis slice using a black- blood single shot fast spin echo pulse

sequence. Segmental and global T1 values were measured before and 15 min-

utes after administration of 0.2 mmol/kg of Gadoteric acid and compared to our cohort of 17 controls.

Results: Mean non contrast T1 values were significantly higher in heart transplant patients compared to controls (1100±5ms vs 947±29ms, P<0.001). Segmental T1 values were significantly higher in the 6 regions of interest compared to controls (P<0.001 in all segments). Mean post contrast T1 values were not significantly different in patients and controls. Mean T2 value was higher in patients compared to controls (73±13 vs 50± 4ms), suggesting the presence of global edema.

Conclusion: Heart transplant patients with clinical antibody-mediated rejection show a significant increased global and segmental non contrast T1 values suggesting the presence of diffuse myocardial fibrosis. Further studies are required to confirm these data.

0113

Cardiac magnetic resonance T1 mapping pre and post contrast in heart transplant patients with clinical antibody-mediated rejection: a preliminary experience

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Background: Antibody-mediated rejection (AMR) is characterized by histopathological and immunophenotypic findings such as activated endothelial cells, intravascular macrophages and evidence of capillary C4d deposition. This inflammatory reaction could be followed by diffuse fibrosis. Cardiac magnetic resonance (CMR) with recently T1 mapping is a promising tech-

nique to identify diffuse myocardial fibrosis. The purpose of this study was to determine the prelimary results (1month FU) in patients operated on aortic stenosis with Edwards INTUITY bioprosthesis.

Methods: Inclusion criteria: 1/Severe symptomatic aortic stenosis 2/ Small aortic annulus 3/ tricuspid aortic valve. Endpoints: 1/ Success of procedure and in-hospital mortality 2/ post op evolution of mean gradient and indexed effective orifice area (iEOA) 3/Evolution of LV mass 4/Incidence of peri-

prosthetic regurgitation (PPR) 5/Incidence of peri-


Abstract 0325 – Figure: Means values of 4 chamber longitudinal strain (LS-4c) and global longitudinal strain (GLS)

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Conclusions: These early results suggest potential future applicability of the Edwards INTUITY in addressing some of the challenges in patients with a small aortic annulus. Mid-term results in a large population should be evaluated.