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 transplants patients compared to controls (1100±5ms vs 947±29ms, P <0.001). Segmental T1 values were significantly higher in the 6 regions of interest transplants patients compared to controls (–21.7±4.5% vs –23.3±2.7%, P=0.5).

Conclusion: In this pilot study, Speckle-tracking echocardiography revealed impaired LV longitudinal strain in 100% of patients with normal CMR. Decreased longitudinal LV strain could represent an early sign of cardiac involvement in sarcoidosis patients. Therefore further assessment of cardiac deformation imaging in the setting of sarcoidosis is needed to improve the diagnosis of CS (figure above).

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 technique 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 immunophenotypic 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-ventricular short axis slice using a black-blood single shot fast spin echo pulse sequence. Segmental and global T1 values were measured before and 15 minutes 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±4 ms), 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.

0159

Surgical aortic valve replacement in patients with small aortic annulus using a new rapid deployment bioprosthesis: preliminary results

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Background: optimal management of patient with small aortic annulus who require aortic valve replacement (AVR) is debated. The adverse prognostic impact of a prosthesis – patient mismatch (PPM) is well established. Hemodynamic performance of new generation of rapid deployment aortic bioprosthesis with LVOT enlargement by the sub-valvular expandable frame must be evaluated.

Objectives: to determine the preliminary results (1month FU) in patients operated on aortic stenosis with Edwards INTUITY bioprosthesis.


Results: 38 patients, age = 78.6±6.6, BMI = 25.5±3.3, Euroscore II= 3.8±3.6, LVEF = 63.4±10.2%, lAVA = 0.5±0.2cm², mean gradient = 56.7±19.3 mmHg. Stroke volume = 49.9±11.6ml/m², Surgical procedure: full sternotomy in all, 15 patients with INTUITY 19mm and 23 patients with INTUITY 21mm, CABG in 12 patients (31.6%), Cross clamping time = 45.6±21.1min. 1/ Success of procedure: 100%. 2/ In-hospital mortality: 2.6%. 3/ Evolution of mean gradient and iEOA at 1 month FU = 17.8±12.7 mmHg and 0.7±0.1 cm²/m² (INTUITY19mm); 11.9±4.2mmHg and 1±0.3 cm²/m² (INTUITY21mm). 4/Evolution of LV mass: Significant reduction of LV mass index at 1 month FU (124mg/m² vs 167mg/m², P=0.001) 5/Incidence of PPR: No PPR > grade 1. 6/Incidence of PPM: only six patients (8.3%) with moderate PPM (ELI<0.85 cm²/m²). None with severe PPM.

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.