

21st International Conference on

Clinical and Experimental Cardiology

November 06-07, 2017 | Las Vegas, USA

Magnetic Resonance Imaging in evaluation of heart failure: A prospective study of 500 consecutive patients

P Manokar

Sri Ramachandra University, India

Background: Conventional diagnostic algorithm in Heart Failure starts with 2D Echocardiography and ends with coronary angiogram in most patients. We decided to evaluate HF patients with MRI and correlate the findings with information available by other modalities

Methods: We evaluated 500 patients of heart failure from various institutions with Magnetic resonance imaging. All patients underwent MRI at a single centre and all images were evaluated by a single operator (RJ). Cine imaging using segmented, breath-held steady-state free precession (SSFP) or real time pulse sequences; morphologic imaging using turbo spin-echo (TSE)-based sequences; perfusion imaging; inversion-recovery delayed-enhancement imaging; phase-contrast flow imaging were done.

Findings: We evaluated 500 patients from 10 institutions referred by 13 cardiologists. 20 patients (4%) had constrictive pericarditis. 10 had cardiac tamponade due to localised pericardial collection of fluid. 30 patients (6%) isolated diastolic HF with restrictive physiology. The remaining 440 patients (88%) had systolic heart failure with LV dysfunction (EF<55%). The etiology demonstrable by MRI were Ischemic 260 (52%) and non-ischemic 180 (36%). The non-ischemic included HCM 60 (12%), ARVC/D 30 (6%), myocarditis 30 (6%), sarcoidosis 10 (2%), EMF 10 (2%), Non compaction 10 (2%), amyloidosis 20 (4%), indeterminate etiology 10 (2%). The viability assessment with delayed hyperenhancement was useful in guiding revascularization in the ischemic subset.

Conclusion: MRI evaluation in HF is a comprehensive single stop imaging option for assessment of cardiac anatomy, physiology, pathology and hemodynamics thus could guide appropriate therapies.

Biography

P Manokar is a Professor of Cardiology at Sri Ramachandra University, Porur, Chennai, India. He qualified as the Youngest Cardiologist to complete formal training in Cardiology at the age of 29 years in India and then became the youngest to become Professor of Cardiology at the age of 38 years. I work in a JCI accredited University Hospital, the largest stand alone private health care facility in South East Asia with over 2000 beds. He trained at OSU under the able guidance of Dr WT Abraham. He heads the Transplant Program and the AHS Training program in Sri Ramachandra University.

pmanokar@hotmail.com

Notes: