may represent a novel biomarker of arrhythmic risk. Sarcomeric mutation status independently predicts a blunted stress oxygenation response in HCM.

23 PREVALENCE AND CORRELATES OF MID-WALL LATE GADOLINIUM ENHANCEMENT IN PATIENTS WITH ISCHEMIC CARDIOMYOPATHY

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Background Late gadolinium enhancement (LGE) imaging is an established technique for the assessment of myocardial replacement fibrosis/scar. The presence of mid-wall LGE has been described in ~30% of patients with dilated cardiomyopathy (DCM) of non-ischemic aetiology and is known to be associated with poor clinical response to pharmacological therapy and worse outcome. Conversely, little is known regarding the clinical significance of additional mid-wall LGE in patients with ischemic cardiomyopathy (ICM). The aim of the present study was therefore to investigate the prevalence and clinical/imaging correlates of mid-wall LGE in a consecutive cohort of patients with ICM.

Methods The UHSM-redCAP database was searched for patients with ICM (defined as the presence of LV ejection fraction <50% in the context of multivessel disease and/or previous myocardial infarction) who had clinically-indicated CMR with LGE imaging for the assessment of LV volumes, LV regional/global systolic function and presence/extent of myocardial replacement fibrosis/scar.

Results A total of 606 consecutive patients with ICM were identified and included in the study. Mean age of the study population was 64±11 years and 85% of the patients were males. Mid-wall LGE was observed in 34 (6%) patients. No significant difference in age (64±11 vs. 65±11 years), male gender (85% vs. 94%), and prevalence of NYHA functional class 3–4 (29% vs. 32%) was observed between ICM patients without vs. with additional mid-wall LGE. However, ICM patients with mid-wall LGE had larger LV end-diastolic volume (261±79 ml vs. 220±60 ml; p<0.001), larger LV end-systolic volume (176±74 ml vs. 140±54 ml; p<0.001) and lower LV ejection fraction (34%±8% vs. 38 ±9%; p=0.019).

Conclusion Additional mid-wall LGE is present in a small proportion (6%) of patients with ICM and is a marker of worse LV dilatation and systolic function. The clinical meaning of this finding (i.e. dual pathology vs. epiphenomenon of severe LV dilatation and wall stress) and its implication with respect to outcome remains to be determined.

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24 ADENOSINE STRESS NATIVE T1 MAPPING DEMONSTRATES IMPAIRED MYOCARDIAL PERFUSION RESERVE IN NON-ISCHEMIC DILATED CARDIOMYOPATHY

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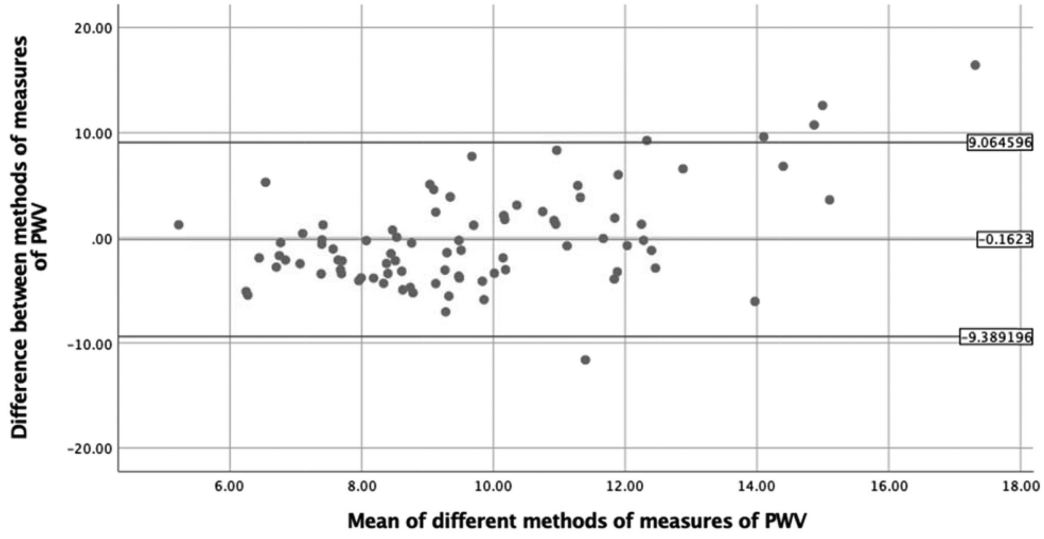
Background Impaired myocardial perfusion reserve has been demonstrated in non-ischemic dilated cardiomyopathy (NIDCM) by positron emission tomography (PET) and adenosine-stress first-pass perfusion cardiac magnetic resonance (CMR) imaging. Adenosine stress native T1 mapping is a novel CMR technique able to assess myocardial perfusion without the use of contrast agents. Aim of the present study was to the determine the clinical utility of this novel CMR technique in NIDCM.

Methods A total of 20 consecutive patients (mean age 61±12 years, 80% males) with diagnosis of NIDCM who consented to be enrolled in the UHSM CMR registry were included in the present study. CMR at 3T including *1.* cine imaging for the assessment of LV volumes, mass and global longitudinal strain (GLS) by tissue-tracking imaging; *2.* rest and stress (adenosine 140 mcg/kg/min) MOLLI T1 mapping of mid



Abstract 23 Figure 1 Bland Altman Plot comparing phase contrast MRI measured PWV and cfPWV measured by oscillometry. Parametres used: Mean of difference = -0.1623, SD ± 4.70760; LoA: lower limit= -9.389196, upper limit = 9.064596