SUPPLEMENTAL MATERIAL

Supplemental Table 1. Association of pre-contrast T1 times with LV structural and functional measures in participants without LGE scar: Estimated Regression coefficient (standard error in parenthesis)

	R²	Model 1	Model 2	Model 3
Ecc	0.27	**-0.072 (0.02) ****	**-0.082 (0.02) ****	**-0.074 (0.01) ****
EDSR	0.13	0.001 (0.002)	0.0006 (0.002)	0.0002 (0.002)
Torsion	0.11	0.007 (0.005)	0.002 (0.006)	0.004 (0.005)
TRR	0.11	-0.073 (0.06)	0.041 (0.06)	0.039 (0.06)
LV EF	0.12	0.01 (0.04)	-0.086 (0.04)	-
EDVi	0.19	-0.162 (0.08)	0.108 (0.08)	-
LVMi	0.46	**-0.311 (0.08)****	0.036 (0.06)	-

*= p<0.05, ******=p<0.001

The Coefficient represents the change in LV measures per 10ms change in precontrast T1 time, with adjustments for multiple variables.

Model 1: Unadjusted

Model 2: Adjusted for age, gender, race, BSA, GFR, heart rate, SBP, DBP, Anti hypertensive medication use, History of Diabetes, Smoking status.

Model 3: Adjusted for age, gender, race, BSA, GFR, heart rate, SBP, DBP, Anti hypertensive medication use, History of Diabetes, Smoking status, LV end diastolic mass and volume.

R²: R-squared values for model 3 (for model 2 if model3 is not available)

EDSR= Early diastolic strain rate, LV Torsion =LV Torsion adjusted for epicardial radius, TRR= Torsional recoil rate, BSA=Body Surface Area, LV EF=LV Ejection fraction, LVEDVi=LV End diastolic volume index, LVMi= LV mass index, SBP= Systolic blood pressure, DBP= Diastolic blood pressure, GFR= Glomerular Filtration rate.

Supplemental Table 2. Gender specific changes in LV structure and function with pre-contrast T1 times in participants without LGE scar: Estimated Regression Coefficient (Standard Error in parenthesis)

	R²	Women Model 1	Women Model 2	Women Model 3
		Women		
	R²	**Model 1**	**Model 2**	**Model 3**
Ecc	0.25	**-0.086 (0.02)***	**-0.105 (0.02) ****	**-0.090 (0.02)***
EDSR	0.13	0.002 (0.003)	0.005 (0.003)	0.004 (0.003)
Torsion	0.15	0.001 (0.007)	-0.003 (0.007)	-0.007 (0.007)
TRR	0.09	0.055 (0.08)	0.034 (0.08)	0.023 (0.08)
LV EF	0.02	-0.074 (0.05)	-0.075 (0.05)	-
EDVi	0.16	0.1 (0.09)	0.157 (0.09)	-
LVMi	0.23	0.075 (0.07)	0.031 (0.07)	-
		Men		
	R²	**Model 1**	**Model 2**	**Model 3**
Ecc	0.28	0.01 (0.03)	-0.035 (0.03)	-0.038 (0.03)
EDSR	0.14	-0.008 (0.004)	-0.005 (0.004)	-0.004(0.004)
Torsion	0.10	0.011 (0.09)	0.003 (0.01)	0.004 (0.009)
TRR	0.05	0.015 (0.09)	0.027 (0.09)	0.022 (0.09)
LV EF	0.07	-0.108 (0.07)	-0.099 (0.07)	-
EDVi	0.13	-0.233 (0.16)	0.052 (0.15)	-
LVMi	0.19	0.002 (0.12)	0.102 (0.11)	-

*=$p<0.05$, ******=$p<0.001$

The Coefficient represents the change in LV measures per 10 ms increase in precontrast T1 time, with adjustments for multiple variables.

Model 1: Unadjusted

Model 2: Multivariate linear regression adjusted for age, race, BSA, GFR, heart rate, SBP, DBP, Anti hypertensive medication use, History of Diabetes, Smoking status.

Model 3: Adjusted for age, race, BSA, GFR, heart rate, SBP, DBP, Anti hypertensive medication use, History of Diabetes, Smoking status, LV end diastolic mass and volume.

R²: R-squared values for model 3 (for model 2 if model3 is not available)

EDSR=Early diastolic strain rate, LV Torsion =LV Torsion adjusted for epicardial radius, TRR=Torsional recoil rate, BSA=body surface area, LVEF=Ejection fraction, LVEDVi=LV End diastolic volume index, LVMi = LV mass index, SBP= Systolic blood pressure, DBP= Diastolic blood pressure, GFR= Glomerular Filtration rate.