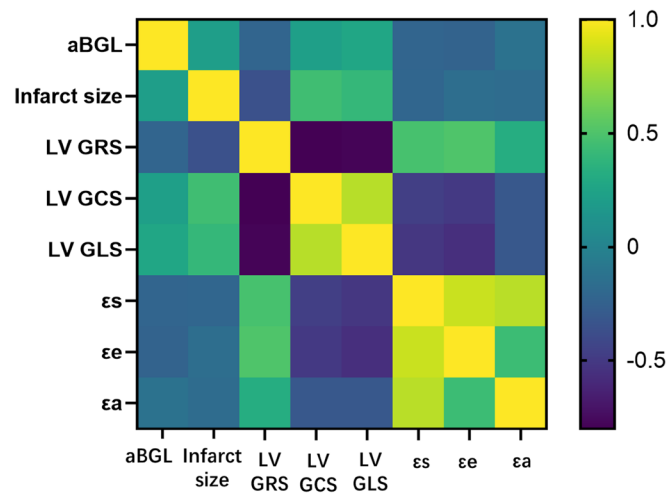**Figure S1** Flowchart of participant inclusion. AMI, acute myocardial infarction; MRI, magnetic resonance imaging; aHGL, admission hyperglycemia; aNGL, admission normoglycemia; aBGL, admission blood glucose level; CMR, cardiac magnetic resonance.

Figure S2 Correlations between infarct size, aBGL, LV, strains and LA strain. aBGL, admission blood glucose level; LV, left ventricular; GRS, global radial strain; GCS, global circumferential strain; GLS, global longitudinal strain; LA, left atrial.

Table S1 Univariate and multivariate linear regression of infarct size and LV strain in all patients with AMI

Variables	Infarct size Univariate β	P	Multivariate (R^2=0.093) β	P	LV GRS Univariate β	P	Multivariate (R^2=0.049) β	P	LV GCS Univariate β	P	Multivariate (R^2=0.255) β	P	LV GLS Univariate β	P	Multivariate (R^2=0.224) β	P
Age	−0.058	0.405			−0.029	0.673			0.096	0.168			0.120	0.085		
Sex	0.218	0.002	0.231	<0.001	−0.064	0.362			0.023	0.741			0.008	0.909		
HR	0.008	0.913			−0.221	0.001	−0.221	0.001	0.240	<0.001	0.216	<0.001	0.216	0.002	0.216	<0.001
SBP	−0.131	0.060			0.008	0.909			−0.119	0.087			−0.032	0.644		
DBP	−0.081	0.245			−0.119	0.088			0.009	0.894			0.025	0.717		
Diabetes	0.003	0.968			−0.159	0.022			0.206	0.003	0.179	0.003	0.179	0.010		
aBGL	0.151	0.029	0.168	0.013	−0.238	<0.001			0.216	0.002			0.257	<0.001	0.208	0.001
eGFR	−0.116	0.098	−0.146	0.032	0.014	0.842			−0.055	0.437			−0.051	0.471		
Infarct size	–	–	–	–	−0.347	<0.001			0.423	<0.001	0.420	<0.001	0.368	<0.001	0.335	<0.001

Multivariable linear regression model was adjusted with age, sex, and clinical factors with P<0.1 in the univariate analysis. LV, left ventricular; AMI, acute myocardial infarction; HR, heart rate; SBP, systolic blood pressure; DBP, diastolic blood pressure; aBGL, admission blood glucose level; eGFR, estimated glomerular filtration rate; GRS, global radial strain; GCS, global circumferential strain; GLS, global longitudinal strain.