

Supplementary Online Content

Shah DJ, Kim HW, James O, et al. Prevalence of regional myocardial thinning and relationship with myocardial scarring in patients with coronary artery disease. *JAMA*. doi:10.1001/jama.2013.1381

eTable 1. Relationship of Baseline Characteristics With Limited Scarring Among Patients With Wall Thinning (n=201)

eTable 2. Relationship of Baseline Characteristics With Functional and Remodeling Changes After Revascularization

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Relationship of Baseline Characteristics With Limited Scarring Among Patients With Wall Thinning (n=201)^a

Characteristic	Bivariable Odds Ratio (95% CI)	P	Multivariable Odds Ratio (95% CI)	P
Age (years)	1.03 (0.99-1.06)	0.11		
Gender (male)	0.81 (0.35-1.89)	0.63		
Cardiac Risk Factors				
Hypercholesterolemia	0.56 (0.24-1.28)	0.17		
Hypertension	1.44 (0.66-3.11)	0.36		
Cigarette Smoking	1.70 (0.81-3.55)	0.16		
Family History of Premature CAD	1.47 (0.70-3.10)	0.31		
Diabetes	0.92 (0.41-2.05)	0.84		
Number of Risk Factors	1.17 (0.83-1.66)	0.37		
Symptoms				
Angina	1.14 (0.59-2.20)	0.70		
NYHA Functional Status (Mean Classification Score)	1.06 (0.71-1.57)	0.78		
Cardiac History				
Prior Myocardial Infarction	0.62 (0.29-1.31)	0.21		
Prior Revascularization	0.79 (0.38-1.65)	0.53		
Cardiac Medications				
Beta-blockers	0.68 (0.32-1.45)	0.31		
ACE-Inhibitors and/or Angiotensin Receptor Blockers	0.81 (0.39-1.69)	0.57		
HMG Reductase Inhibitors	0.66 (0.32-1.36)	0.26		
Aspirin	0.71 (0.32-1.58)	0.40		
Thienopyridines	0.41 (0.09-1.84)	0.25		
Electrocardiogram ^b				
Any Q waves	0.76 (0.36-1.60)	0.47		
Selvester Score ^c	0.87 (0.78-0.97)	0.01	0.87 (0.78-0.97)	0.01
X-Ray Coronary Angiography ^d				
Number of Vessels With CAD (stenosis ≥ 70%)	1.08 (0.72-1.62)	0.70		
Maximum Stenosis in Artery to Thinned Region (%)	1.03 (1.00-1.05)	0.03	1.03 (1.00-1.06)	0.03
Rentrop Collateral Score to Thinned Region	1.44 (1.09-1.90)	0.01	1.28 (0.94-1.76)	0.12
Cardiovascular Magnetic Resonance				
Global				
LV Ejection Fraction (%)	1.02 (0.99-1.05)	0.22		
% LV Surface Area Thinned	0.98 (0.96-1.01)	0.17		
Thinned Region				
End Diastolic Wall Thickness (mm)	1.76 (1.10-2.83)	0.02	1.86 (1.12-3.12)	0.02
End Systolic Wall Thickness (mm)	1.21 (0.80-1.84)	0.36		

^a Based on ≤ 50% scar in the thinned region. For categorical variables, the reference increment is per 1-unit change.

^b Available in 195 patients.

^c Infarct size as determined by the ECG was estimated using the 32-point Selvester QRS scoring system, in which each point was designed to represent approximately 3% of LV mass.

^d Available in 199 patients.

eTable 2. Relationship of Baseline Characteristics With Functional and Remodeling Changes After Revascularization

Characteristic	FUNCTIONAL								REMODELING			
	Change in Systolic Wall Thickening (mm)				Change in LVEF (%)				Change in End Diastolic Wall Thickness (mm)			
	Bivariable		Multivariable		Bivariable		Multivariable		Bivariable		Multivariable	
	Coefficient (95% CI)	P	Coefficient (95% CI)	P	Coefficient (95% CI)	P	Coefficient (95% CI)	P	Coefficient (95% CI)	P	Coefficient (95% CI)	P
Clinical												
Age	0.01 (-0.02-0.05)	0.41			0.21 (-0.12-0.53)	0.21			0.02 (-0.02-0.07)	0.26		
Gender (men)	-0.69 (-1.62-0.24)	0.14			-5.05 (-13.90-3.79)	0.26			-0.68 (-1.88-0.52)	0.26		
Hypercholesterolemia	-0.37 (-1.25-0.52)	0.41	0.14 (-0.51-0.79)	0.66	-8.93 (-16.8, -1.03)	0.03	-3.98 (-10.7-2.76)	0.24	-0.51 (-1.63-0.62)	0.37		
Hypertension	-0.14 (-0.93-0.66)	0.73			-1.82 (-9.26-5.61)	0.62			0.34 (-0.66-1.35)	0.50		
Cigarette Smoking	-0.08 (-0.86-0.71)	0.84			1.71 (-5.66-9.08)	0.64			-0.44 (-1.43-0.55)	0.38		
Family History of Premature CAD	0.25 (-0.59-1.10)	0.55			4.07 (-3.81-11.95)	0.30			-0.54 (-1.61-0.53)	0.31		
Diabetes	0.02 (-0.98-1.02)	0.97			1.28 (-8.11-10.67)	0.78			0.65 (-0.60-1.91)	0.30		
Number of Risk Factors (0-5)	-0.06 (-0.41-0.30)	0.75			-0.56 (-3.92-2.80)	0.74			-0.12 (-0.57-0.34)	0.61		
Angina	-0.19 (-0.98-0.60)	0.63			-2.56 (-9.97-4.85)	0.49			0.19 (-0.82-1.19)	0.71		
NYHA Functional Status (1-4)	0.26 (-0.13-0.66)	0.19	0.07 (-0.22-0.36)	0.63	3.78 (0.17-7.38)	0.04	1.73 (-1.27-4.74)	0.25	0.32 (-0.18-0.83)	0.20	0.05 (-0.23-0.34)	0.71
Prior Myocardial Infarction	0.25 (-0.53-1.04)	0.52			-4.75 (-12.05-2.55)	0.20			0.25 (-0.76-1.26)	0.62		
Prior Revascularization	0.30 (-0.60-1.21)	0.50			0.04 (-9.40-9.48)	0.99			-0.20 (-1.38-0.99)	0.74		
Any Q Waves	-0.16 (-1.01-0.68)	0.70			-3.69 (-11.58-4.21)	0.35			-0.27 (-1.35-0.81)	0.61		
Selvester Score (0-32 points)	0.04 (-0.06-0.15)	0.41			-0.07 (-1.06-0.91)	0.88			0.00 (-0.14-0.13)	0.95		
Maximum Artery Stenosis (%)	0.01 (-0.01-0.03)	0.46			0.12 (-0.07-0.32)	0.22			0.01 (-0.02-0.04)	0.40		
Rentrop Score (0-3)	0.06 (-0.23-0.35)	0.67			0.69 (-2.04-3.43)	0.61			0.00 (-0.37-0.37)	0.99		
Cardiovascular Magnetic Resonance												
Global												
LV Ejection Fraction (%)	-0.02 (-0.05-0.02)	0.31	-0.02 (-0.05-0.00)	0.08	-0.36 (-0.66, -0.06)	0.02	-0.32 (-0.58, -0.06)	0.02	0.00 (-0.04-0.05)	0.92		

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% of LV Surface Area Thinned	0.02 (0.00-0.04)	0.08	0.09 (-0.12-0.29)	0.40	0.02 (-0.01-0.04)	0.26	0.01 (0.00-0.03)	0.07
LV End Diastolic Volume (10 ml)	0.03 (-0.03-0.09)	0.34	0.16 (-0.42-0.74)	0.58	0.02 (-0.05-0.10)	0.53		
LV End Systolic Volume (10 ml)	0.04 (-0.02-0.10)	0.21	0.39 (-0.22-0.99)	0.21	0.03 (-0.05-0.11)	0.48		
LV Mass (100 gm)	-0.07 (-1.15-1.01)	0.89	5.54 (-4.53-15.61)	0.27	0.08 (-1.29-1.46)	0.90		
Thinned Region								
End Diastolic Wall Thickness (mm)	-0.01 (-0.66-0.65)	0.98	1.47 (-4.65-7.59)	0.63	-0.27 (-1.10-0.55)	0.51		
End Systolic Wall Thickness (mm)	-0.11 (-0.64-0.43)	0.69	-0.98 (-5.99-4.04)	0.70	0.01 (-0.67-0.69)	0.97		
Systolic Wall Thickening (mm)	-0.25 (-1.08-0.58)	0.55	-4.77 (-12.45-2.92)	0.22	0.47 (-0.58-1.52)	0.37		
Scar Extent in Thinned Region (%)	-0.03 (-0.04, -0.02)	<0.001	-0.03 (-0.04, -0.02)	<0.001	0.23 (-0.34, -0.11)	<0.001	-0.21 (-0.32, -0.11)	<0.001
Model R ² (adjusted)			0.519, p<0.001		0.414, p<0.001		-0.05 (-0.06, -0.04)	<0.001
							0.706, p<0.001	

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