

Supplementary Online Content

van Rosendaal AR, Narula J, Lin FY, et al. Association of high-density calcified 1K plaque with risk of acute coronary syndrome. *JAMA Cardiol*. Published online January 22, 2020. doi:10.1001/jamacardio.2019.5315

eTable 1. Per-Patient Calcification Density Data Restricted to Myocardial Infarction Cases

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

eTable 1. Per-Patient Calcification Density Data Restricted to Myocardial Infarction Cases

	Myocardial infarction N = 126	Control N = 126	P-value
Volume			
All calcified plaque, mm ³ (>350 HU)	74.0 ± 99.5	106.5 ± 168.9	0.193
Calcification 351-700 HU, mm ³	56.3 ± 74.2	69.9 ± 108.2	0.454
Calcification 701-1000 HU, mm ³	14.5 ± 24.0	25.2 ± 49.5	0.112
1K Plaque (>1000 HU), mm ³	3.6 ± 7.2	10.0 ± 23.6	0.011
Data are provided as mean ± standard deviation			

eTable 2. Per-Patient Calcification Density Data for Age >75

	ACS* N = 42	Control* N = 42	P-value
Volume			
Total plaque volume	418.9 ± 410.7	327.3 ± 275.8	0.474
1K Plaque (>1000 HU), mm ³	17.7 ± 25.8	14.3 ± 25.8	0.204

Data are provided as mean ± standard deviation

*extra calcium density data could not be processed in 3 patients from the ICONIC registry

eTable 3. Lesion Specific Calcification Volumes for Culprit Precursors Versus Control Lesions			
	ACS patient; culprit precursor N = 93*	Control: Lesion with most severe stenosis N = 88†	P-value (control vs culprit precursor)
Plaque volume, mm ³	123.4 ± 124.1	109.3 ± 118.7	0.200
Lesion length, mm	34.0 ± 19.7	31.7 ± 20.3	0.195
Diameter stenosis, %	34.1 ± 16.9	39.4 ± 14.6	0.059
Max cross sectional plaque burden, %	59.7 ± 20.8	63.2 ± 20.7	0.302
Calcification volume			
Calcification 351-700 HU, mm ³	25.0 ± 30.4	28.6 ± 38.5	0.737
Calcification 701-1000 HU, mm ³	7.8 ± 13.8	13.9 ± 28.1	0.161
1K plaque (>1000 HU), mm ³	2.6 ± 7.2	7.6 ± 20.3	0.013
Data are provided as mean ± standard deviation			
*extra calcium density data could not be processed in 3 lesions			
† 5 patients did not have a non-totally occluded lesion			

eTable 4. Lesion Specific Calcification Volumes for Culprit Precursors of Myocardial Infarction Versus Control Lesions

	Myocardial infarction patient; culprit precursor N = 55	Control: Lesion with most severe stenosis N = 50†	P-value (control vs culprit precursor)
Plaque volume, mm ³	130 ± 137.1	135.5 ± 137.7	0.851
Lesion length, mm	33.9 ± 20.2	34.3 ± 21.4	0.694
Diameter stenosis, %	32.5 ± 15.4	40.0 ± 15.8	0.049
Max cross sectional plaque burden, %	58.1 ± 20.9	63.1 ± 23.0	0.269
Calcification volume			
Calcification 351-700 HU, mm ³	25.6 ± 32.7	38.7 ± 46.5	0.664
Calcification 701-1000 HU, mm ³	7.6 ± 13.6	18.3 ± 33.4	0.064
1K plaque (>1000 HU), mm ³	2.0 ± 4.7	9.2 ± 20.7	0.023

Data are provided as mean ± standard deviation

† 5 patients did not have a non-totally occluded lesion

eTable 5. Plaque Composition in Individuals With a Large 1K Plaque Volume			
	Highest quartile 1K Plaque volume	Remaining patients	P-value
Plaque volume, mm ³	539.6 ± 339.7	206.9 ± 196.6	<0.001
% Calcified plaque	48.3 ± 17.3	24.9 ± 21.0	<0.001
% Fibrous plaque	39.0 ± 10.3	50.2 ± 15.4	<0.001
% Fibro-fatty plaque	11.4 ± 9.0	22.4 ± 17.9	0.017
% Necrotic core plaque	1.2 ± 2.7	2.5 ± 4.4	0.050
% Fibro-fatty + necrotic core	12.6 ± 10.4	24.9 ± 20.6	<0.001
Data reported as mean ± standard deviation			