

SUPPLEMENTAL MATERIAL

Table S1. Clinical characteristics and CMR findings of patients with and without MACE.

	Total N = 523	MACE (+) N = 62	MACE (-) N = 461	p value
<i>Demographics</i>				
Age, y	65 ± 12	68 ± 9	65 ± 2	0.013
Men, n (%)	425 (81.3)	49 (79.0)	376 (81.6)	0.630
Body surface area, m ²	24.1 ± 3.5	23.7 ± 3.7	24.2 ± 3.4	0.300
Body mass index, kg m ⁻²	1.698 ± 0.184	1.664 ± 0.168	1.703 ± 0.185	0.114
<i>Medical history, n (%)</i>				
History of MI	58 (11.1)	12 (19.4)	46 (10.0)	0.028
History of PCI	63 (12.0)	16 (25.8)	47 (10.2)	< 0.001

Hypertension, n (%)	327 (62.5)	41 (66.1)	286 (62.0)	0.532
Hyperlipidemia, n (%)	253 (48.4)	29 (46.8)	224 (48.6)	0.790
Diabetes mellitus, n (%)	184 (35.2)	24 (38.7)	160 (34.7)	0.536
Current smoker, n (%)	211 (40.3)	28 (45.2)	183 (39.7)	0.493
Family history, n (%)	54 (10.3)	5 (8.1)	49 (10.6)	0.533
<i>Prescription at the time of CMR, n</i>				
<i>(%):</i>				
Statin, n (%)	466 (89.1)	54 (87.1)	412 (89.4)	0.747
ACE-I or ARB, n (%)	398 (76.1)	45 (72.6)	353 (76.6)	0.489
β -blocker, n (%)	366 (70.0)	46 (74.2)	320 (69.4)	0.441
Calcium antagonist, n (%)	116 (22.2)	16 (25.8)	100 (21.7)	0.464

<i>ACS presentation</i>				
Systolic BP at admission, mmHg	142 ± 29	143 ± 25	142 ± 29	0.166
Heart rate at admission, bpm	80 ± 20	81 ± 22	80 ± 20	0.406
STEMI/NSTEMI	325 (62.1)/198 (37.9)	40 (64.5)/22 (35.5)	285 (61.8)/176 (38.2)	0.681
Killip class				< 0.001
I	433 (82.8)	46 (74.2)	387 (83.9)	
II	42 (8.0)	2 (3.2)	40 (8.7)	
III	29 (5.5)	9 (14.5)	20 (4.3)	
IV	19 (3.6)	5 (8.1)	14 (3.0)	
<i>Coronary angiography</i>				

Infarct-related lesion location; RCA/LAD/LCx, n (%)	173 (33.1)/269 (51.4)/81 (15.5)	24 (38.7)/26 (43.6)/11 (17.7)	149 (32.3)/242 (52.5)/70 (15.2)	0.423
TIMI flow grade at baseline				0.133
0	228 (43.6)	26 (41.9)	202 (43.8)	
1	47 (9.0)	1 (1.6)	46 (10.0)	
2	115 (22.0)	17 (27.4)	98 (21.3)	
3	133 (25.4)	18 (29.0)	115 (24.9)	
TIMI flow grade at final				0.743
0	2 (0.4)	0 (0)	2 (0.4)	
1	9 (1.7)	2 (3.2)	7 (1.5)	

2	55 (10.5)	6 (9.7)	49 (10.6)	
3	457 (87.4)	54 (87.1)	403 (87.4)	
Multivessel disease, n (%)	268 (51.2)	41 (66.1)	227 (49.2)	0.012
Ad-hoc PCI of the non-infarct-related artery during index procedure, n (%)	21 (4.0)	3 (4.8)	18 (3.9)	0.725
Staged PCI of the non-infarct-related artery during index hospitalization, n (%)	140 (26.8)	20 (32.3)	120 (26.0)	0.298
<i>Laboratory data</i>				
T-cho1, mg dL ⁻¹	179 (154–211)	170 (150–198)	181 (155–214)	0.182

LDL-chol, mg dL ⁻¹	111 (88–135)	104 (87–132)	112 (88–136)	0.179
HDL-chol, mg dL ⁻¹	44 (37–51)	42 (35–46)	45 (37–52)	0.230
TG, mg dL ⁻¹	110 (73–159)	99 (73–137)	113 (73–167)	0.097
Creatinine, mg dL ⁻¹	0.85 (0.72–0.98)	0.90 (0.76–1.05)	0.84 (0.71–0.97)	0.153
eGFR, ml min ⁻¹ 1.73 m ⁻²	68.7 (57.7–80.9)	64.5 (52.9–75.4)	69.6 (58.8–81.3)	0.021
HbA1c, %	6.0 (5.6–6.8)	6.2 (5.6–7.0)	6.0 (5.6–6.8)	0.468
NT-proBNP, ng L ⁻¹	409 (134–1141)	1016 (324–2678)	364 (125–957)	< 0.001
Peak CK, IU L ⁻¹	1248 (281–2815)	1562 (225–3225)	1210 (289–2793)	0.875
Peak CK-MB, IU L ⁻¹	115 (28–281)	129 (23–369)	111 (29–274)	0.817
hs-CRP, mg dL ⁻¹	0.220 (0.090–0.750)	0.390 (0.120–0.950)	0.210 (0.090–0.712)	0.056

<i>CMR indices</i>				
EDV, mL	117.9 (97.3–140.2)	127.7 (103.2–158.2)	117.0 (96.3–139.4)	0.021
ESV, mL	51.0 (38.7–73.1)	65.9 (42.2–104.3)	50.6 (38.5–69.6)	0.007
LVMI, g m ⁻²	83.1 (69.9–95.6)	92.6 (78.6–107.7)	82.0 (69.3–92.9)	<0.001
EF, %	55.4 (45.7–63.2)	49.6 (37.3–61.8)	56.0 (47.8–63.2)	0.012
CSF at rest, ml min ⁻¹	109.9 (79.9–143.5)	122.2 (106.3–172.5)	106.3 (77.7–141.3)	0.005
CSF at rest, ml min ⁻¹ g ⁻¹	0.79 (0.55–1.05)	0.85 (0.63–1.03)	0.76 (0.55–1.04)	0.197
Corrected CSF at rest, ml min ⁻¹	131.7 (95.1–178.2)	144.8 (112.5–194.3)	129.0 (91.9–174.6)	0.020
Corrected CSF at rest, ml min ⁻¹ g ⁻¹	0.94 (0.68–1.26)	0.94 (0.77–1.28)	0.93 (0.67–1.24)	0.508
1				
CSF at hyperemia, ml min ⁻¹	290.2 (208.0–367.2)	258.1 (183.5–309.4)	293.6 (210.2–368.7)	0.012

CSF at hyperemia, ml min ⁻¹ g ⁻¹	2.05 (1.42–2.73)	1.46 (1.16–2.21)	2.11 (1.49–2.75)	< 0.001
g-CFR	2.54 (1.82–3.70)	1.86 (1.36–2.63)	2.69 (1.91–3.81)	< 0.001
Corrected g-CFR	2.17 (1.54–3.03)	1.60 (1.13–2.20)	2.25 (1.62–3.10)	< 0.001
LGE volume, cm ³	9.3 (3.4–16.0)	12.3 (4.9–20.4)	9.1 (2.7–15.6)	0.005
MVO presence, n (%)	142 (27.2)	24 (38.7)	118 (25.6)	0.043

ACE-I: angiotensin-converting enzyme inhibitor; ACS: acute coronary syndrome; ARB: angiotensin receptor blocker; BP: blood pressure; CK: creatine kinase; CK-MB: creatine kinase-myocardial band; CMR: cine-magnetic resonance imaging; CSF: coronary sinus flow; EDV: end diastolic volume; EF, ejection fraction; eGFR: estimated glomerular filtration rate; ESV, end systolic volume; g-CFR: global coronary flow reserve; HbA1c: glycated hemoglobin; HDL-chol: high density lipoprotein cholesterol; hs-CRP: high sense c-reactive protein; LAD: left anterior descending coronary artery; LCx: left circumflex coronary artery; LDL-chol: low density lipoprotein cholesterol; LGE: late gadolinium enhancement; LVMI: left ventricular mass index; MACE: major adverse cardiac events; MI: myocardial infarction; MVO: Microvascular obstruction; NSTEMI: non-ST-segment-elevation myocardial infarction; NT-proBNP: N-terminal pro-B-type natriuretic peptide; PCI: percutaneous coronary intervention; RCA: right coronary artery; STEMI: ST-segment-elevation myocardial infarction; TG: triglyceride; TIMI: thrombolysis in myocardial infarction

Table S2. Clinical characteristics and CMR findings of patients without untreated functionally significant lesions.

	Total N = 490	MACE (+) N = 55	MACE (-) N = 435	p value
<i>Demographics</i>				
Age, y	65 ± 12	68 ± 10	65 ± 12	0.041
Men, n (%)	396 (80.8)	45 (81.8)	351 (80.7)	0.840
Body surface area, m ²	24.1 ± 3.4	23.6 ± 3.1	24.2 ± 3.4	0.578
Body mass index, kg m ⁻²	1.699 ± 0.185	1.672 ± 0.165	1.703 ± 0.187	0.382
<i>Medical history, n (%)</i>				
History of MI	52 (10.6)	10 (18.2)	42 (9.7)	0.028
History of PCI	59 (12.0)	13 (23.6)	46 (10.6)	< 0.001
Hypertension, n (%)	303 (61.8)	35 (63.6)	268 (61.6)	0.771

Hyperlipidemia, n (%)	237 (48.4)	26 (47.3)	211 (48.5)	0.863
Diabetes mellitus, n (%)	173 (35.3)	20 (36.4)	153 (35.2)	0.862
Current smoker, n (%)	201 (41.0)	17 (30.9)	184 (42.3)	0.106
Family history, n (%)	52 (10.6)	4 (7.3)	48 (11.0)	0.393
<i>Prescription at the time of CMR, n</i>				
<i>(%):</i>				
Statin, n (%)	415 (84.7)	54 (87.1)	412 (89.4)	0.155
ACE-I or ARB, n (%)	371 (75.7)	45 (72.6)	353 (76.6)	0.830
β -blocker, n (%)	339 (69.2)	46 (74.2)	320 (69.4)	0.769
Calcium antagonist, n (%)	108 (22.0)	16 (25.8)	100 (21.7)	0.517
<i>ACS presentation</i>				

Systolic BP at admission, mmHg	142 ± 29	145 ± 25	141 ± 30	0.205
Heart rate at admission, bpm	80 ± 20	81 ± 21	79 ± 19	0.455
STEMI/NSTEMI	313 (63.9)/177 (36.1)	38 (69.1)/17 (30.9)	275 (63.2)/160 (36.8)	0.393
Killip class				0.001
I	411 (83.9)	41 (74.5)	370 (85.1)	
II	38 (7.8)	2 (3.6)	36 (8.3)	
III	23 (4.7)	8 (14.5)	15 (3.4)	
IV	18 (3.7)	4 (7.3)	14 (3.2)	
<i>Coronary angiography</i>				

Culprit lesion location; RCA/LAD/LCx, n (%)	164 (33.5)/252 (51.4)/74 (15.1)	23 (41.8)/23 (41.8)/9 (16.4)	141 (32.4)/229 (52.7)/65 (14.9)	0.321
TIMI flow grade at baseline				0.110
0	219 (44.7)	23 (41.8)	196 (45.1)	
1	45 (9.2)	1 (1.8)	44 (10.1)	
2	108 (22.0)	17 (30.9)	91 (20.9)	
3	118 (24.1)	14 (25.5)	104 (23.9)	
TIMI flow grade at final				0.687
0	2 (0.4)	0 (0)	2 (0.5)	
1	9 (1.8)	2 (3.6)	7 (1.6)	

2	52 (10.6)	5 (9.1)	47 (10.8)	
3	427 (87.1)	48 (87.3)	379 (87.1)	
Multivessel disease, n (%)	235 (48.0)	34 (61.8)	201 (46.2)	0.029
Ad-hoc PCI of the non-infarct-related artery during index procedure, n (%)	17 (3.5)	2 (3.6)	15 (3.4)	0.943
Staged PCI of the non-infarct-related artery during index hospitalization, n (%)	120 (24.5)	16 (29.1)	104 (23.9)	0.400
<i>Laboratory data</i>				
T-cholesterol, mg dL ⁻¹	179 (154–212)	172 (150–200)	181 (155–214)	0.092

LDL-chol, mg dL ⁻¹	112 (88–135)	107 (88–132)	112 (88–136)	0.418
HDL-chol, mg dL ⁻¹	44 (37–52)	41 (35–46)	45 (37–52)	0.112
TG, mg dL ⁻¹	112 (75–166)	101 (76–145)	116 (74–168)	0.213
Creatinine, mg dL ⁻¹	0.84 (0.71–0.98)	0.91 (0.77–1.04)	0.84 (0.70–0.97)	0.122
eGFR, ml min ⁻¹ 1.73 m ⁻²	68.7 (57.7–81.3)	64.5 (53.1–76.7)	69.5 (58.3–82.1)	0.053
HbA1c, %	6.0 (5.6–6.8)	6.2 (5.6–7.0)	6.0 (5.6–6.8)	0.616
NT-proBNP, ng L ⁻¹	371 (131–1040)	982 (287–2455)	341 (117–930)	< 0.001
Peak CK, IU L ⁻¹	1287 (298–2976)	1687 (316–3350)	1274 (298–2885)	0.573
Peak CK-MB, IU L ⁻¹	118 (29–283)	148 (28–378)	116 (29–280)	0.552
hs-CRP, mg dL ⁻¹	0.220 (0.090–0.730)	0.390 (0.123–1.140)	0.200 (0.090–0.690)	0.047

<i>CMR indices</i>				
EDV, mL	118.0 (97.3–139.9)	126.9 (102.3–157.9)	117.0 (96.4–139.4)	0.029
ESV, mL	51.2 (38.7–71.7)	63.4 (42.3–97.1)	50.8 (38.4–69.2)	0.013
LVMI, g m ⁻²	82.2 (69.4–94.9)	91.4 (78.0–106.2)	81.4 (68.6–92.7)	< 0.001
EF, %	55.7 (46.2–63.3)	50.8 (38.0–61.7)	56.0 (47.9–63.3)	0.025
CSF at rest, ml min ⁻¹	108.2 (79.7–143.4)	122.3 (100.8–170.8)	105.9 (77.7–141.9)	0.012
CSF at rest, ml min ⁻¹ g ⁻¹	0.79 (0.55–1.05)	0.86 (0.68–1.02)	0.78 (0.55–1.05)	0.254
Corrected CSF at rest, ml min ⁻¹	130.1 (93.3–177.3)	145.4 (113.1–198.5)	128.2 (91.4–175.5)	0.024
Corrected CSF at rest, ml min ⁻¹ g ⁻¹	0.94 (0.68–1.26)	0.95 (0.80–1.28)	0.94 (0.67–1.25)	0.497
CSF at hyperemia, ml min ⁻¹	290.3 (209.9–364.2)	260.4 (184.0–322.4)	294.3 (213.9–368.3)	0.021

CSF at hyperemia, ml min ⁻¹ g ⁻¹	2.06 (1.44–2.73)	1.45 (1.17–2.29)	2.14 (1.52–2.78)	< 0.001
g-CFR	2.58 (1.84–3.73)	1.90 (1.36–2.84)	2.70 (1.93–3.82)	< 0.001
Corrected g-CFR	2.18 (1.56–3.05)	1.64 (1.13–2.31)	2.27 (1.63–3.12)	< 0.001
LGE volume, cm ³	9.3 (3.3–16.0)	12.4 (4.85–20.4)	9.1 (2.9–15.7)	0.006
MVO presence, n (%)	137 (28.7)	22 (40.0)	115 (26.4)	0.051

ACE-I: angiotensin-converting enzyme inhibitor; ACS: acute coronary syndrome; ARB: angiotensin receptor blocker; BP: blood pressure; CK: creatine kinase; CK-MB: creatine kinase-myocardial band; CMR: cine-magnetic resonance imaging; CSF: coronary sinus flow; EDV: end diastolic volume; EF, ejection fraction; eGFR: estimated glomerular filtration rate; ESV, end systolic volume; g-CFR: global coronary flow reserve; HbA1c: glycated hemoglobin; HDL-chol: high density lipoprotein cholesterol; hs-CRP: high sense c-reactive protein; LAD: left anterior descending coronary artery; LCx: left circumflex coronary artery; LDL-chol: low density lipoprotein cholesterol; LGE: late gadolinium enhancement; LVMI: left ventricular mass index; MACE: major adverse cardiac events; MI: myocardial infarction; MVO: Microvascular obstruction; NSTEMI: non-

ST-segment-elevation myocardial infarction; NT-proBNP: N-terminal pro-B-type natriuretic peptide; PCI: percutaneous coronary intervention;

RCA: right coronary artery; STEMI: ST-segment-elevation myocardial infarction; TG: triglyceride; TIMI: thrombolysis in myocardial infarction

Table S3. Cox proportional-hazard regression analysis of MACE in the whole population.

	Univariable analysis			Multivariable analysis 1		
	HR	95% CI	p value	HR	95% CI	p value
Age, y	1.03	1.01–1.06	0.012	1.02	0.99–1.04	0.204
Prior MI	1.85	0.98–3.48	0.056			
Killip class 3 or 4	2.66	1.47–4.83	0.001	1.36	0.70–2.64	0.319
TIMI flow grade at baseline: 0	0.87	0.52–1.43	0.572			
TIMI flow grade at final < 3	0.80	0.38–1.69	0.558			
Multivessel disease	1.60	0.94–2.70	0.082			
eGFR, ml min ⁻¹ 1.73 m ⁻²	0.99	0.97–1.00	0.043	1.00	0.98–1.01	0.421
log (NT-proBNP)	1.41	1.19–1.68	< 0.001	1.24	1.03–1.49	0.020
CRP, mg dL ⁻¹	1.08	0.94–1.24	0.271			

LVMI, g/m ²	1.02	1.01–1.03	< 0.001	1.01	1.00–1.02	0.050
EF, %	0.99	0.97–1.01	0.333			
CSF at hyperemia, ml/min/g	0.58	0.43–0.80	0.001			Not selected
Corrected g-CFR	0.56	0.42–0.75	< 0.001	0.62	0.47–0.82	0.001
LGE volume, cm ³	1.03	1.01–1.05	0.003	1.02	0.99–1.04	0.233
MVO presence	0.79	0.43–1.42	0.425			
Concordantly impaired h-CSF and g-CFR	3.16	1.91–5.22	< 0.001			Not selected

Multivariable analysis 2

Multivariable analysis 3

	HR	95% CI	p value	HR	95% CI	p value
Age, y	1.02	1.00–1.05	0.115	1.02	0.99–1.04	0.243
Prior MI						
Killip class 3 or 4	1.47	0.75–2.87	0.261	1.32	0.67–2.62	0.201
TIMI flow grade at baseline: 0						
TIMI flow grade at final < 3						
Multivessel disease						
eGFR, ml min ⁻¹ 1.73 m ⁻²	1.00	0.98–1.01	0.691	1.00	0.98–1.01	0.381
log (NT-proBNP)	1.35	1.13–1.61	0.001	1.36	1.14–1.62	0.001
CRP, mg dL ⁻¹						
LVMI, g/m ²	1.01	0.99–1.02	0.370	1.01	1.00–1.02	0.105

EF, %						
CSF at hyperemia, ml/min/g	0.64	0.47–0.88	0.005			Not selected
Corrected g-CFR			Not selected			Not selected
LGE volume, cm ³	1.02	0.99–1.04	0.161	1.02	0.99–1.04	0.146
MVO presence						
Concordantly impaired h-CSF and g-CFR			Not selected	2.80	1.68–4.65	< 0.001

Table S4. Cox proportional-hazard regression analysis of MACE in the setting of STEMI.

	Univariable analysis			Multivariable analysis 1		
	HR	95% CI	p value	HR	95% CI	p value
Age, y	1.02	0.99–1.05	0.244			
Prior MI	2.34	1.03–5.29	0.042			
Killip class 3 or 4	3.14	1.60–6.18	0.001	1.69	0.76–3.78	0.200
TIMI flow grade at baseline: 0	0.80	0.43–1.49	0.485			
TIMI flow grade at final < 3	0.97	0.45–2.11	0.941			
Multivessel disease	1.46	0.77–2.75	0.242			
eGFR, ml min ⁻¹ 1.73 m ⁻²	1.00	0.98–1.01	0.646			
log (NT-proBNP)	1.31	1.05–1.64	0.016	1.099	0.87–1.39	0.425

CRP, mg dL ⁻¹	0.98	0.77–1.24	0.854			
LVMI, g/m ²	1.03	1.02–1.04	< 0.001	1.03	1.02–1.04	< 0.001
EF, %	1.00	0.97–1.01	0.327			
CSF at hyperemia, ml/min/g	0.56	0.36–0.84	0.006			Not selected
Corrected g-CFR	0.65	0.47–0.90	0.009	0.67	0.49–0.92	0.012
LGE volume, cm ³	1.03	1.01–1.06	0.013	1.02	0.99–1.05	0.328
MVO presence	0.89	0.46–1.72	0.727			
Concordantly impaired h-CSF and g-CFR	2.55	1.35–4.82	0.004			Not selected

	Multivariable analysis 2			Multivariable analysis 3		
	HR	95% CI	p value	HR	95% CI	p value
Age, y						
Prior MI						
Killip class 3 or 4	3.10	1.57–6.09	0.103	1.742	0.779–3.892	0.180
TIMI flow grade at baseline: 0						
TIMI flow grade at final < 3						
Multivessel disease						
eGFR, ml min ⁻¹ 1.73 m ⁻²						
log (NT-proBNP)	1.15	0.91–1.44	0.150	1.121	0.884–1.421	0.354
CRP, mg dL ⁻¹						

LVMI, g/m ²	1.03	1.02–1.04	< 0.001	1.03	1.01–1.04	< 0.001
EF, %						
CSF at hyperemia, ml/min/g	0.56	0.37–0.85	0.007			Not selected
Corrected g-CFR			Not selected			Not selected
LGE volume, cm ³	1.02	0.99–1.05	0.087	1.02	0.98–1.05	0.373
MVO presence	0.56	0.37–0.85	0.007			Not selected
Concordantly impaired h-CSF and g-CFR			Not selected	2.16	1.14–4.11	0.018

Table S5. Cox proportional-hazard regression analysis of MACE in the setting of NSTEMI.

	Univariable analysis			Multivariable analysis 1		
	HR	95% CI	p value	HR	95% CI	p value
Age, y	1.06	1.01–1.11	0.010	1.05	1.00–1.09	0.059
Prior MI	1.36	0.50–3.69	0.547			
Killip class 3 or 4	1.56	0.36–6.67	0.553			
TIMI flow grade at baseline: 0	0.98	0.33–2.89	0.965			
TIMI flow grade at final < 3	0.05	0.00–85.38	0.420			
Multivessel disease	2.08	0.77–5.65	0.150			
eGFR, ml min ⁻¹ 1.73 m ⁻²	0.97	0.95–0.99	0.008			
log (NT-proBNP)	1.55	1.20–2.02	0.001	1.38	1.05–1.81	0.023
CRP, mg dL ⁻¹	1.18	1.00–1.38	0.052			

LVMI, g/m ²	1.01	0.99–1.02	0.492			
EF, %	1.00	0.96–1.03	0.763			
CSF at hyperemia, ml/min/g	0.62	0.38–1.01	0.053			Not selected
Corrected g-CFR	0.40	0.22–0.70	0.001	0.46	0.26–0.83	0.010
LGE volume, cm ³	1.04	1.00–1.08	0.049			
MVO presence	0.33	0.04–2.46	0.280			
Concordantly impaired h-CSF and g-CFR	4.57	1.98–10.53	< 0.001			Not selected

	Multivariable analysis 2			Multivariable analysis 3		
	HR	95% CI	p value	HR	95% CI	p value
Age, y	1.05	1.00–1.10	0.074	1.05	1.01–1.10	0.018
Prior MI						
Killip class 3 or 4						
TIMI flow grade at baseline: 0						
TIMI flow grade at final < 3						
Multivessel disease						
eGFR, ml min ⁻¹ 1.73 m ⁻²						
log (NT-proBNP)	1.55	1.20–2.02	0.001	1.26	0.94–1.68	0.132
CRP, mg dL ⁻¹						

LVMI, g/m²

EF, %

CSF at hyperemia, ml/min/g	0.70	0.43–1.13	0.141		Not selected	
Corrected g-CFR			Not selected		Not selected	
LGE volume, cm ³						
MVO presence						
Concordantly impaired h-CSF and g-CFR			Not selected	4.19	1.81–9.73	0.001

CI: confidence interval; CRP: c-reactive protein; CSF: coronary sinus flow; EF: ejection fraction; eGFR: estimated glomerular filtration rate; g-

CFR: global coronary flow reserve; HR: hazard ratio; h-CSF: hyperemic coronary sinus flow; LGE: late gadolinium enhancement; LVMI: left

ventricular mass index; MACE: major adverse cardiac events; MI: myocardial infarction; MVO: Microvascular obstruction; NSTEMI: non ST-segment-elevation myocardial infarction; NT-proBNP: N-terminal pro-B-type natriuretic peptide; STEMI: ST-segment-elevation myocardial infarction