

**Supplemental Table 1** Characteristics of the total population stratified by the median concentration of aldosterone at baseline (23.1 pg/mL)

	<b>Aldosterone ≤ median (N = 60)</b>	<b>Aldosterone &gt; median (N = 59)</b>	<b>p-value</b>
<b>Demographics and clinical characteristics</b>			
Age, years	57 ± 9	56 ± 12	0.25
Male gender, n (%)	49 (82)	53 (90)	0.30
Body mass index, Kg/m <sup>2</sup>	26.7 ± 3.9	27.8 ± 3.9	0.08
Current smokers, n (%)	26 (43)	28 (48)	0.73
Diabetes mellitus, n (%)	2 (3)	7 (12)	0.10
Hypertension, n (%)	16 (27)	23 (39)	0.17
Hypercholesterolemia, n (%)	21 (35)	25 (42)	0.45
Heart rate, bpm	71 ± 13	74 ± 14	0.41
Systolic blood pressure, mmHg	126 ± 21	126 ± 21	0.84
Diastolic blood pressure, mmHg	78 ± 15	77 ± 14	0.87
<b>Echocardiography</b>			
LVEDVi, mL/m <sup>2</sup>	63.5 ± 14.2	58.9 ± 14.5	0.08
LVESVi, mL/m <sup>2</sup>	32.6 ± 10.7	29.0 ± 12.0	0.09
LVEF, %	49.5 ± 8.1	51.6 ± 9.4	0.19
LVEF ≤ 40%, n (%)	10 (17)	7 (12)	0.45
GLS	- 14.5 ± 3.2	- 14.7 ± 3.6	0.85
<b>Coronary intervention</b>			
Time from pain onset to PCI, minutes	115.9 ± 62.2	109.6 ± 65.4	0.62
Thromboaspiration, n (%)	42 (70)	45 (76)	0.54
Anterior STEMI, n (%)	31 (52)	25 (42)	0.36
MI-related coronary artery, n (%)	33 (55)	29 (50)	0.45
- Left anterior descending artery	20 (33)	24 (41)	0.71
- Right coronary artery	8 (13)	5 (9)	0.56
- Left circumflex artery			
<b>Biomarkers</b>			
Troponin I, µg/L	67.9 (17.3 - 96.0)	55.3 (27.4 - 94.0)	0.47
CPK, UI/L	2924.0 (1199.0 - 4000.0)	2455.0 (1291.0 - 3582.0)	0.56
CK-MB, UI/L	234.5 (121.5 - 357.0)	219.0 (106.0 - 315.0)	0.27
eGFR-MDRD, ml/min/1.73 m <sup>2</sup>	84.1 ± 16.7	79.2 ± 19.9	0.13
C-reactive protein, mg/L	14.0 (8.5 - 22.8)	13.3 (6.0 - 30.5)	0.80
BNP, pg/mL	169 (80 - 298)	139 (80 - 222)	0.37
Renin, µUI	11.4 (6.0 - 21.3)	21.3 (8.2 - 65.0)	0.008

Aldosterone, pg/mL	16.3 ± 4.3	29.9 ± 6.0	<0.001
PINP, µg/L	103.0 ± 40.2	101.9 ± 41.2	0.88
PIIINP, µg/L	2.6 ± 0.9	2.8 ± 1.4	0.27
ICTP, ng/mL	10.2 ± 6.1	11.4 ± 6.9	0.27
<b>Medications at 6-month follow-up</b>			
RASi, n (%)	54 (90)	54 (91)	0.77
Beta-blockers, n (%)	53 (88)	53 (89)	0.79
MRA, n (%)	0 (0)	0 (0)	1.00
<b>Medications at 6-month follow-up</b>			
RASi, n (%)	32 (73)	29 (81)	0.41
Beta-blockers, n (%)	36 (82)	28 (78)	0.65
MRA, n (%)	7 (16)	3 (8)	0.30

**Abbreviations:** BNP, type-B natriuretic peptide; ICTP, type I collagen telopeptide; CPK, creatine phosphokinase; CK-MB, creatine-kinase MB; eGFR, estimated glomerular filtration rate; MRA, mineralocorticoid receptor antagonist; PCI, percutaneous coronary intervention; PINP, procollagen type-I N-terminal pro-peptide; PIIINP, procollagen type-III N-terminal pro-peptide; RASi, renin-angiotensin system inhibitors; STEMI, ST-segment elevated myocardial infarction.

**Supplemental Table 2** Echocardiographic and cardiac magnetic resonance characteristics at baseline and follow-up stratified by the median concentration of aldosterone at baseline (23.1 pg/mL)

	Aldosterone ≤ median					Aldosterone > median				
	Baseline (V1)	6-month follow-up (V2)	p-value (V1-V2)	Long-term follow-up (V3)	p-value (V1-V3)	Baseline (V1)	6-month follow-up (V2)	p-value (V1-V2)	Long-term follow-up (V3)	p-value (V1-V3)
<b>Echocardiography</b>										
LV end-diastolic volume index, mL/m <sup>2</sup>	63.5 ± 14.2	63.5 ± 16.9	0.617	50.9 ± 18.2	<0.001	58.9 ± 14.5	61.7 ± 20.6	0.138	49.4 ± 9.9	<0.001
LV end-systolic volume index, mL/m <sup>2</sup>	32.6 ± 10.7	29.2 ± 12.4	0.007	23.4 ± 12.4	<0.001	29.0 ± 12.0	27.8 ± 14.0	0.875	21.5 ± 7.9	<0.001
LVEF, %	49.5 ± 8.1	55.1 ± 9.8	<0.001	55.4 ± 8.7	<0.001	51.6 ± 9.4	55.9 ± 9.6	0.056	57.1 ± 8.7	0.007
LVEF ≤ 40%, n (%)	10 (17)	3 (5)	0.051	2 (5)	0.053	7 (12)	3 (7)	0.356	1 (3)	0.110
GLS	-14.5 ± 3.2	-17.5 ± 3.2	<0.001			-14.7 ± 3.6	-17.7 ± 3.8	<0.001		
<b>Cardiac magnetic resonance</b>										
LV end-diastolic volume index, mL/m <sup>2</sup>	94.3 ± 14.9	96.9 ± 18.1	0.184			94.3 ± 14.9	96.9 ± 18.1	0.002		
LV end-systolic volume index, mL/m <sup>2</sup>	55.6 ± 14.8	51.6 ± 17.4	0.007			51.6 ± 17.4	50.5 ± 16.8	0.002		
LVEF, %	41.6 ± 8.2	47.9 ± 9.2	<0.001			41.8 ± 8.1	50.0 ± 8.1	<0.001		
LVEF ≤ 40%, n (%)	25 (41)	11 (18)	0.005			21 (36)	6 (10)	0.001		
Total MI area, % of LV	39.3 ± 12.1	27.9 ± 11.8	<0.001			39.3 ± 14.5	24.9 ± 10.3	<0.001		

**Abbreviations:** GLS, global longitudinal strain; LV, left ventricle; LVEF, left ventricular ejection fraction; MI, myocardial infarction

**Supplemental Table 3** Crude and adjusted correlations between change in markers of fibrosis (from baseline to 6-month follow-up) and baseline aldosterone concentration

Outcome	Model	Covariates	Beta ± SE	P-value	
PINP change, µg/L	M0	Aldosterone (pg/mL)	-0.107 ± 0.195	0.581	
		PINP (µg/L)	-0.515 ± 0.171	0.003	
	M1	Aldosterone (pg/mL)	-0.096 ± 0.195	0.623	
		PINP (µg/L)	-0.523 ± 0.172	0.003	
		Anterior STEMI	-5.571 ± 6.911	0.422	
	M2	Aldosterone (pg/mL)	-0.165 ± 0.203	0.418	
		PINP (µg/L)	-0.515 ± 0.173	0.004	
		Anterior STEMI	-3.829 ± 7.092	0.590	
		BNP (ng/mL)	-11.721 ± 9.185	0.204	
PIIINP change, µg/L	M0	Aldosterone (pg/mL)	-0.001 ± 0.002	0.558	
		PIIINP (µg/L)	-0.526 ± 0.098	<0.001	
	M1	Aldosterone (pg/mL)	-0.002 ± 0.002	0.514	
		PIIINP (µg/L)	-0.513 ± 0.099	<0.001	
		Anterior STEMI	0.074 ± 0.088	0.400	
	M2	Aldosterone (pg/mL)	-0.002 ± 0.003	0.439	
		PIIINP (µg/L)	-0.511 ± 0.104	<0.001	
		Anterior STEMI	0.096 ± 0.092	0.294	
		BNP (ng/mL)	-0.058 ± 0.118	0.624	
	ICTP change, ng/mL	M0	Aldosterone (pg/mL)	-0.017 ± 0.008	0.036
			ICTP (ng/mL)	-0.530 ± 0.059	<0.001
		M1	Aldosterone (pg/mL)	-0.018 ± 0.008	0.030
ICTP (ng/mL)			-0.528 ± 0.059	<0.001	
Anterior STEMI			0.294 ± 0.281	0.297	
M2		Aldosterone (pg/mL)	-0.016 ± 0.008	0.074	
		ICTP (ng/mL)	-0.526 ± 0.059	<0.001	
		Anterior STEMI	0.269 ± 0.289	0.354	
		BNP (ng/mL)	0.422 ± 0.370	0.257	

**Abbreviations:** BNP, type-B natriuretic peptide; ICTP, type I collagen telopeptide; PINP, procollagen type-I N-terminal pro-peptide; PIIINP, procollagen type-III N-terminal pro-peptide; STEMI, ST-segment elevated myocardial infarction.

**Supplemental Table 4** Adjusted correlations between change in LVEDVi or LVESVi (from baseline to 6-month and long-term follow-up) and baseline aldosterone concentration

Outcome	Covariates	6-month follow-up				Long-term follow-up	
		Echocardiography		CMR		Echocardiography	
		Beta ± SE	P-value	Beta ± SE	P-value	Beta ± SE	P-value
Absolute change in LVEDVi, mL/m <sup>2</sup>	Aldosterone (pg/mL)	0.110 ± 0.046	0.018	0.099 ± 0.040	0.015	3.243 ± 4.936	0.51
	LVEDVi (mL/m <sup>2</sup> )	-0.158 ± 0.094	0.097	-0.172 ± 0.075	0.023	-0.319 ± 0.119	0.009
	Anterior STEMI	2.411 ± 2.793	0.39	4.984 ± 2.301	0.032	4.946 ± 3.068	0.11
	BNP (ng/mL)	3.684 ± 8.521	0.67	10.097 ± 7.360	0.17	6.934 ± 12.164	0.57
	RAS inhibitors	-4.418 ± 4.780	0.36	1.205 ± 4.058	0.77	-6.916 ± 4.792	0.15
	Aldosterone (pg/mL)	-	-	-	-	3.383 ± 5.030	0.50
	LVEDVi (mL/m <sup>2</sup> )	-	-	-	-	-0.325 ± 0.121	0.009
	Anterior STEMI	-	-	-	-	4.895 ± 3.134	0.12
	BNP (ng/mL)	-	-	-	-	8.811 ± 12.267	0.47
	Incident MI*	-	-	-	-	0.670 ± 6.139	0.91
Absolute change in LVESVi, mL/m <sup>2</sup>	Aldosterone (pg/mL)	0.082 ± 0.031	0.009	0.063 ± 0.032	0.052	-0.022 ± 3.598	1.00
	LVESVi (mL/m <sup>2</sup> )	-0.253 ± 0.079	0.002	-0.142 ± 0.066	0.034	-0.403 ± 0.115	0.0008
	Anterior STEMI	2.426 ± 1.865	0.20	3.668 ± 1.887	0.054	3.565 ± 2.225	0.11
	BNP (ng/mL)	6.917 ± 5.769	0.23	8.457 ± 6.207	0.18	2.476 ± 8.912	0.78
	RAS inhibitors	-2.355 ± 3.183	0.46	-3.055 ± 3.310	0.36	-6.394 ± 3.495	0.071
	Aldosterone (pg/mL)	-	-	-	-	0.204 ± 3.702	0.96
	LVESVi (mL/m <sup>2</sup> )	-	-	-	-	-0.382 ± 0.118	0.002
	Anterior STEMI	-	-	-	-	3.382 ± 2.287	0.14
	BNP (ng/mL)	-	-	-	-	3.879 ± 9.083	0.67
	Incident MI*	-	-	-	-	0.316 ± 4.526	0.94

\* Defined as ST or non-ST myocardial infarction (data available only for long term follow-up)

**Abbreviations:** BNP, type-B natriuretic peptide; CI, confidence interval; LVEDVi, left ventricular end-diastolic volume index; LVESVi, left ventricular end-systolic volume index; MI, myocardial infarction; OR, odds ratio; RAS, renin-angiotensin system; STEMI, ST-segment elevated myocardial infarction.

**Supplemental Table 5** Crude and adjusted correlations between change in LVEDVi (from baseline to 6-month and long-term follow-up) and baseline aldosterone stratified according to the median value (23.1 pg/mL).

Outcome	Model	Covariates	6-month follow-up				Long term follow-up		
			Echocardiography		CMR		Echocardiography		
			Beta ± SE	P-value	Beta ± SE	P-value	Beta ± SE	P-value	
Absolute change in LVEDVi, mL/m <sup>2</sup>	M0	Aldosterone > median (pg/mL)	3.306 ± 2.821	0.24	2.201 ± 2.316	0.34	0.737 ± 3.017	0.81	
		LVEDVi (mL/m <sup>2</sup> )	-0.134 ± 0.096	0.17	-0.159 ± 0.076	0.037	-0.244 ± 0.117	0.041	
	M1	Aldosterone > median (pg/mL)	3.463 ± 2.819	0.22	2.576 ± 2.274	0.26	1.369 ± 2.993	0.65	
		LVEDVi (mL/m <sup>2</sup> )	-0.151 ± 0.097	0.12	-0.176 ± 0.074	0.019	-0.305 ± 0.120	0.013	
		Anterior STEMI	3.321 ± 2.802	0.24	5.548 ± 2.282	0.017	5.498 ± 3.040	0.075	
	M2	Aldosterone > median (pg/mL)	3.259 ± 2.856	0.26	2.877 ± 2.303	0.21	1.603 ± 3.107	0.61	
		LVEDVi (mL/m <sup>2</sup> )	-0.148 ± 0.098	0.13	-0.179 ± 0.075	0.019	-0.312 ± 0.122	0.013	
		Anterior STEMI	2.999 ± 2.861	0.3	5.351 ± 2.324	0.023	5.215 ± 3.110	0.098	
		BNP (ng/mL)	2.069 ± 8.698	0.81	8.978 ± 7.426	0.23	7.282 ± 11.782	0.54	
				<b>OR (95% CI)</b>	<b>P-value</b>	<b>OR (95% CI)</b>	<b>P-value</b>	<b>OR (95% CI)*</b>	<b>P-value</b>
	Change in LVEDVi ≥ 15%	M0	Aldosterone > median (pg/mL)	2.133 (0.870 - 5.232)	0.098	0.978 (0.419 - 2.282)	0.96	0.371 (0.088 - 1.553)	0.17
		M1	Aldosterone > median (pg/mL)	2.102 (0.855 - 5.168)	0.11	1.049 (0.441 - 2.494)	0.91	0.427 (0.099 - 1.836)	0.25
Anterior STEMI			0.807 (0.326 - 1.998)	0.64	2.520 (1.044 - 6.080)	0.04	2.342 (0.545 - 10.07)	0.25	
M2		Aldosterone > median (pg/mL)	1.972 (0.792 - 4.915)	0.14	1.002 (0.415 - 2.420)	1.00	0.503 (0.110 - 2.305)	0.38	
		Anterior STEMI	0.704 (0.277 - 1.794)	0.46	2.506 (1.018 - 6.170)	0.046	-	-	
		BNP (ng/mL)	1.001 (0.998 - 1.004)	0.47	0.999 (0.996 - 1.002)	0.66	1.006 (1.001 - 1.012)	0.012	

\* Due to the low number of events (N = 10), models were adjusted for one variable at a time.

**Abbreviations:** BNP, type-B natriuretic peptide; CI, confidence interval; LVEDVi, left ventricular end-diastolic volume index; MI, myocardial infarction; OR, odds ratio; STEMI, ST-segment elevated myocardial infarction.

**Supplemental Table 6** Crude and adjusted correlations between change in LVESVi (from baseline to 6-month and long-term follow-up) and baseline aldosterone stratified according to the median value (23.1 pg/mL).

Outcome	Model	Covariates	6-month follow-up				Long term follow-up	
			Echocardiography		CMR		Echocardiography	
			Beta ± SE	P-value	Beta ± SE	P-value	Beta ± SE	P-value
Absolute change in LVESVi, mL/m <sup>2</sup>	M0	Aldosterone > median (pg/mL)	2.482 ± 1.910	0.20	-0.506 ± 1.859	0.79	0.338 ± 2.223	0.88
		LVESVi (mL/m <sup>2</sup> )	-0.203 ± 0.080	0.013	-0.090 ± 0.063	0.16	-0.314 ± 0.112	0.006
	M1	Aldosterone > median (pg/mL)	2.624 ± 1.895	0.17	-0.267 ± 1.839	0.88	0.687 ± 2.213	0.76
		LVESVi (mL/m <sup>2</sup> )	-0.224 ± 0.081	0.007	-0.113 ± 0.063	0.076	-0.364 ± 0.115	0.002
		Anterior STEMI	3.088 ± 1.883	0.10	3.759 ± 1.871	0.047	3.471 ± 2.220	0.12
	M2	Aldosterone > median (pg/mL)	2.527 ± 1.915	0.19	-0.077 ± 1.872	0.97	1.045 ± 2.285	0.65
		LVESVi (mL/m <sup>2</sup> )	-0.235 ± 0.083	0.005	-0.136 ± 0.066	0.043	-0.368 ± 0.119	0.003
		Anterior STEMI	2.839 ± 1.915	0.14	3.688 ± 1.912	0.056	3.515 ± 2.262	0.12
		BNP (ng/mL)	5.570 ± 5.904	0.35	7.336 ± 6.269	0.24	4.258 ± 8.711	0.63
			<b>OR (95% CI)*</b>	<b>P-value</b>	<b>OR (95% CI)*</b>	<b>P-value</b>	<b>OR (95% CI)*</b>	<b>P-value</b>
Change in LVESVi ≥ 15%	M0	Aldosterone > median (pg/mL)	3.939 (1.284 - 12.09)	0.017	0.580 (0.178 - 1.887)	0.37	0.756 (0.187 - 3.051)	0.69
	M1	Aldosterone > median (pg/mL)	4.429 (1.401 - 14.00)	0.011	0.617 (0.187 - 2.038)	0.43	0.790 (0.191 - 3.273)	0.74
		Anterior STEMI	2.574 (0.861 - 7.695)	0.091	2.739 (0.790 - 9.495)	0.11	1.266 (0.306 - 5.246)	0.74
	M2	Aldosterone > median (pg/mL)	3.880 (1.217 - 12.37)	0.022	0.616 (0.188 - 2.018)	0.42	1.038 (0.239 - 4.519)	0.96
		Anterior STEMI	-	-	-	-	-	-
		BNP (ng/mL)	1.003 (1.000 - 1.006)	0.076	1.001 (0.998 - 1.005)	0.39	1.005 (1.000 - 1.010)	0.044

\*Due to the low number of events (N = 10), models were adjusted for one variable at a time.

**Abbreviations:** BNP, type-B natriuretic peptide; CI, confidence interval; LVESVi, left ventricular end-systolic volume index; MI, myocardial

infarction; OR, odds ratio; STEMI, ST-segment elevated myocardial infarction.

**Supplemental Table 7** Crude and adjusted correlations between echocardiographic changes in LVEDVi (from baseline to 6-month follow-up) and baseline aldosterone concentration in patients with left ventricular ejection fraction >40% (N=88)

Outcome	Model	Covariates	Beta ± SE	P-value	
Absolute change in LVEDVi, mL/m <sup>2</sup>	M0	Aldosterone (pg/mL)	0.105 ± 0.035	0.004	
		LVEDVi (mL/m <sup>2</sup> )	-0.360 ± 0.116	0.003	
	M1	Aldosterone (pg/mL)	0.099 ± 0.036	0.007	
		LVEDVi (mL/m <sup>2</sup> )	-0.394 ± 0.120	0.002	
		Anterior STEMI	1.525 ± 1.457	0.299	
	M2	Aldosterone (pg/mL)	0.095 ± 0.038	0.016	
		LVEDVi (mL/m <sup>2</sup> )	-0.392 ± 0.123	0.002	
		Anterior STEMI	1.526 ± 1.542	0.325	
		BNP (ng/mL)	-0.937 ± 2.012	0.642	
				<b>OR (95% CI)</b>	<b>P-value</b>
	Change in LVEDVi ≥ 15%	M0	Aldosterone (per 10 pg/mL increment)	1.064 (0.951 - 1.189)	0.276
M1		Aldosterone (per 10 pg/mL increment)	1.073 (0.959 - 1.201)	0.217	
		Anterior STEMI	0.542 (0.198 – 1.484)	0.233	
M2		Aldosterone (per 10 pg/mL increment)	1.114 (0.984 - 1.262)	0.088	
		Anterior STEMI	0.377 (0.124 – 1.145)	0.085	
		BNP (ng/mL)	1.700 (0.824 - 3.506)	0.150	

\*Due to the low number of events, models were adjusted for one variable at a time.

**Abbreviations:** BNP, type-B natriuretic peptide; CI, confidence interval; LVEDVi, left ventricular end-diastolic volume index; MI, myocardial infarction; OR, odds ratio; STEMI, ST-segment elevated myocardial infarction.

**Supplemental Table 8** Crude and adjusted correlations between echocardiographic changes in LVEDVi (from visit 1 to 6-month follow-up) and baseline aldosterone concentration in patients with left ventricular ejection fraction >40% (N=88)

Outcome	Model	Covariates	Beta ± SE	P-value	
Absolute change in LVESVi, mL/m <sup>2</sup>	M0	Aldosterone (pg/mL)	0.078 ± 0.023	0.001	
		LVESVi (mL/m <sup>2</sup> )	-0.338 ± 0.119	0.006	
	M1	Aldosterone (pg/mL)	0.073 ± 0.023	0.003	
		LVESVi (mL/m <sup>2</sup> )	-0.389 ± 0.125	0.003	
		Anterior STEMI	-1.312 ± 0.961	0.176	
	M2	Aldosterone (pg/mL)	0.078 ± 0.025	<0.001	
		LVESVi (mL/m <sup>2</sup> )	-0.373 ± 0.128	0.029	
		Anterior STEMI	1.102 ± 1.018	0.283	
		BNP (ng/mL)	0.609 ± 1.311	0.643	
				<b>OR (95% CI)*</b>	<b>P-value</b>
	Change in LVESVi ≥ 15%	M0	Aldosterone (per 10 pg/mL increment)	1.158 (1.017 - 1.320)	0.017
M1		Aldosterone (per 10 pg/mL increment)	1.154 (1.008 - 1.321)	0.023	
		Anterior STEMI	1.775 (0.566 - 5.563)	0.324	
M2		Aldosterone (per 10 pg/mL increment)	1.230 (1.050 - 1.440)	0.003	
		Anterior STEMI	-	-	
		BNP (ng/mL)	2.229 (0.965 – 5.150)	0.051	

\*Due to the low number of events, models were adjusted for one variable at a time.

**Abbreviations:** BNP, type-B natriuretic peptide; CI, confidence interval; LVESVi, left ventricular end-systolic volume index; MI, myocardial infarction; OR, odds ratio; STEMI, ST-segment elevated myocardial infarction.