

Table S1 Baseline characteristics of different EAS index group among all patients and patients with LVEF \geq 50%

Variables	All participants (n=477)			Patients with LVEF \geq 50% (n=382)		
	EAS index < median, n=238	EAS index \geq median, n=239	P value	EAS index < median, n=217	EAS index \geq median, n=165	P value
Age, years, mean \pm SD	64 \pm 9	63 \pm 11	0.57	64 \pm 10	63 \pm 10	0.55
Male sex, N (%)	180 (75.6)	184 (77.0)	0.73	161 (74.2)	126 (76.4)	0.63
BMI, kg/m ² , median (IQR)	24.8 (23.0, 26.7)	23.7 (21.8, 25.6)	<0.001	24.4 (22.5, 26.3)	23.8 (21.7, 25.7)	<0.001
NT-proBNP, pg/mL, median (IQR)	118.3 (48.7, 307.7)	347.4 (108.5, 1200.0)	<0.001	128.6 (50.5, 371.9)	160.0 (62.8, 526.4)	0.003
Hs-TNT, pg/mL, median (IQR)	12.4 (8.5, 24.2)	21.0 (10.2, 113.1)	<0.001	12.2 (8.5, 27.8)	13.7 (9.0, 82.0)	0.049
CCR, mL/min, median (IQR)	91.5 (80.9, 103.8)	94.3 (81.9, 110.7)	0.08	91.1 (80.4, 103.6)	89.4 (80.3, 104.1)	0.83
LDL-C, mmol/L, median (IQR)	2.7 (2.3, 3.4)	2.8 (2.2, 3.3)	0.77	2.7 (2.3, 3.4)	2.8 (2.2, 3.3)	0.99
HDL-C, mmol/L, median (IQR)	1.0 (0.8, 1.1)	0.9 (0.8, 1.1)	0.16	1.0 (0.8, 1.1)	0.9 (0.8, 1.1)	0.21
Hypertension, N (%)	153 (64.3)	146 (61.1)	0.47	140 (64.5)	101 (61.5)	0.51
Diabetes, N (%)	85 (35.7)	83 (34.7)	0.82	75 (34.6)	50 (30.3)	0.38
History of revascularization, N (%)	83 (34.9)	78 (32.6)	0.61	75 (34.6)	53 (32.1)	0.62
Stenosis degree, N (%)			0.55			0.81
1	48 (20.3)	41 (17.2)		45 (20.7)	34 (20.6)	
2	51 (21.4)	47 (19.7)		45 (20.7)	30 (18.2)	
3	139 (58.4)	151 (63.2)		127 (58.5)	101 (61.2)	
History of medicine						
ACEI/ARB, N (%)	176 (73.9)	180 (75.3)	0.73	158 (72.8)	119 (72.1)	0.88
Mono or dual antiplatelet, N (%)	234 (98.3)	237 (99.2)	0.45	213 (98.3)	163 (98.8)	0.62
Statin, N (%)	232 (97.5)	234 (97.9)	0.76	211 (97.2)	162 (98.2)	0.55
β -blocker, N (%)	206 (86.6)	209 (87.4)	0.77	187 (86.2)	143 (86.7)	0.89
CCB, N (%)	69 (29.0)	48 (20.1)	0.02	63 (29.0)	39 (23.6)	0.24
Furosemide, N (%)	12 (5.0)	45 (18.8)	<0.001	2 (0.9)	3 (1.8)	0.72
LVEDD, mm, median (IQR)	46.0 (43.0, 50.0)	48.0 (44.0, 53.0)	<0.001	46.0 (43.0, 49.0)	47.0 (43.0, 49.3)	0.82
LVESD, mm, median (IQR)	29.0 (26.0, 32.0)	31.0 (27.5, 41.0)	<0.001	29.0 (26.0, 32.0)	29.0 (26.0, 32.0)	0.66
LVEF, %, median (IQR)	63.0 (60.0, 66.0)	60.0 (46.0, 64.0)	<0.001	63.0 (60.0, 66.0)	63.0 (60.0, 65.0)	0.15
Peak early diastolic velocity (e'), cm/s, median (IQR)	5.0 (4.2, 6.0)	5.6 (4.4, 7.0)	0.045	5.8 (5.0, 6.8)	6.0 (5.0, 7.0)	<0.001
Peak late diastolic velocity (a'), cm/s, median (IQR)	10.0 (8.9, 11.0)	7.7 (6.0, 9.0)	<0.001	9.0 (8.0, 10.0)	8.0 (7.0, 9.0)	<0.001
Peak systolic velocity (s'), cm/s, median (IQR)	8.0 (7.0, 9.0)	6.0 (5.0, 7.0)	<0.001	7.0 (6.0, 8.1)	6.0 (5.3, 7.0)	<0.001
E/e', median (IQR)	12.0 (10.0, 14.0)	13.0 (10.0, 16.0)	0.048	12.0 (10.0, 14.0)	6.0 (5.0, 7.0)	0.57
e'/a', median (IQR)	0.5 (0.4, 0.6)	0.7 (0.6, 0.9)	<0.001	0.63 (0.51, 0.75)	0.8 (0.6, 0.9)	<0.001
MACE, N (%)	39 (18.6)	62 (30.2)	0.006	33 (17.4)	37 (25.5)	0.07
All-cause mortality rate, N (%)	5 (2.4)	12 (5.9)	0.07	3 (1.6)	4 (2.8)	0.46
Composite outcome, N (%)	58 (27.6)	81 (39.5)	0.01	52 (27.4)	48 (33.1)	0.26

LVEF, left ventricular ejection fraction; BMI, body mass index; IQR, inter quartile range; NT-proBNP, N-terminal pro brain natriuretic peptide; Hs-TNT, high sensitivity troponin T; CCR, creatinine clearance rate; LDL-C, low density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; ACEI, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; CCB, calcium channel blockers; LVEDD, left ventricular end-diastolic diameter; LVESD, left ventricular end-systolic diameter; MACE, major adverse cardiovascular event.

Table S2 TDI predictors of composite outcomes by cox regression models[†]

Variables	Unadjusted		Model 1		Model 2		Model 3	
	HR (95% CI)	P value	HR (95% CI)	P value	HR (95% CI)	P value	HR (95% CI)	P value
e' ≥5.0 vs. <5.0	0.92 (0.64, 1.32)	0.64	0.98 (0.67, 1.42)	0.91	1.07 (0.69, 1.66)	0.77	1.10 (0.63, 1.93)	0.64
a' <9.0 vs. ≥9.0	1.74 (1.23, 2.44)	0.002	1.74 (1.23, 2.44)	0.002	1.81 (1.25, 2.63)	0.002	1.85 (1.27, 2.30)	0.001
s' <7.0 vs. ≥7.0	1.41 (1.01, 1.97)	0.04	1.41 (1.01, 1.97)	0.04	1.31 (0.89, 1.93)	0.17	0.92 (0.54, 1.57)	0.71
e'/a' ≥0.6 vs. <0.6	1.35 (0.95, 1.92)	0.09	1.35 (0.95, 1.92)	0.09	1.35 (0.97, 2.12)	0.07	1.22 (0.71, 2.12)	0.31
E/e' ≥12.0 vs. <12.0	1.44 (1.02, 2.05)	0.04	1.44 (1.02, 2.05)	0.04	1.26 (0.83, 1.89)	0.28	1.24 (0.80, 1.94)	0.36
EAS ≥9.15 vs. <9.15	1.54 (1.10, 2.16)	0.01	1.54 (1.10, 2.16)	0.01	1.57 (1.08, 2.29)	0.02	1.26 (0.71, 2.24)	0.29

[†], Model 1: adjusted for age, sex; Model 2: adjusted for age, sex, BMI, NT-proBNP, hs-TNT, HDL-C, stenosis degree; Model 3: adjusted for age, sex, BMI, NT-proBNP, hs-TNT, HDL-C, stenosis degree, e', a', s', E/e', e'/a', EAS index. Note: e', a', s', E/e', e'/a', EAS index, sex and stenosis degree were included in the model as categorical variables. BMI, body mass index; TDI, tissue Doppler imaging, MACE, major adverse cardiovascular event; NT-proBNP, N-terminal pro brain natriuretic peptide; hs-TNT, high sensitivity troponin T; HDL-C, high-density lipoprotein cholesterol; HR, hazard ratio; CI, confidence interval.