

Supplementary Table 1: Baseline Characteristics of The Study Population

Variables	Overall (n=726)	BMI <25kg/m ² (n=485)	BMI ≥25kg/m ² (n=241)	p-value
Age (years), median [interquartile range]	66.0 [60.0, 72.0]	67.00 [61.0, 73.0]	64.0 [58.0, 70.0]	0.414
Female sex, n (%)	224 (30.9)	153 (31.5)	71 (29.5)	0.609
BSA (m ²), median [interquartile range]	1.7 [1.6, 1.8]	1.7 [1.5, 1.8]	1.8 [1.7, 1.9]	<0.001
CHA2DS2-VASc, median [interquartile range]	2.0 [1.0, 3.0]	2.0 [1.0, 3.0]	2.0 [1.0, 3.0]	0.709
Congestive heart failure, n (%)	110 (15.7)	76 (15.6)	34 (14.1)	<0.001
Hypertension, (%)	389 (53.6)	235 (48.4)	154 (63.9)	<0.001
Alcohol, n (%)	38 (5.2)	25 (5.1)	13 (5.4)	0.861
Diabetes, n (%)	109 (15.0)	54 (11.1)	55 (22.8)	<0.001

Vascular disease, n (%)	44 (6.1)	34 (7.0)	10 (4.1)	0.140
Stroke or TIA, n (%)	49 (6.8)	33 (6.8)	16 (6.6)	1.000
OSA, n (%)	12 (1.7)	4 (0.8)	8 (3.3)	0.025
BNP (pg/mL; n=698), median [interquartile range]	89.6 [40.2, 175.2]	84.0 [39.5, 181.2]	101.7 [43.7, 172.2]	0.896
Creatinine (mg/dL), median [interquartile range]	0.8 [0.7, 0.9]	0.8 [0.7, 0.9]	0.8 [0.7, 0.9]	0.036
ACEI/ARB, n (%)	290 (39.9)	177 (36.4)	113 (46.9)	0.008
Beta-blockers, n (%)	280 (38.6)	183 (37.7)	97 (40.2)	0.518
Loop diuretics, n (%)	97 (13.4)	69 (14.2)	28 (11.6)	0.356
Aldosterone blockers, n (%)	42 (5.8)	30 (6.2)	12 (5.0)	0.614

Anti-arrhythmic drugs, n (%)	276 (38.0)	193 (39.7)	83 (34.4)	0.194
Left atrial dimension, mm	39.9 ± 6.8	38.4 ± 6.7	43.1 ± 6.0	<0.001
LVEF (%), median [interquartile range]	62.8 [67.8, 57.0]	62.9 [57.0, 67.6]	62.7 [57.0, 68.0]	0.752
Radiofrequency ablation/Cryoablation, n	377 / 349	247 / 238	130 / 111	0.432

ACEI, angiotensin-converting enzyme inhibitors; AF, atrial fibrillation; ARB, angiotensin II receptor blockers; BNP, B-type natriuretic peptide; BP, blood pressure; BMI, body mass index; LVEF, left ventricular ejection fraction; OSA, obstructive sleep apnoea; TIA, transient ischaemic attack.

Supplementary Table 2: Univariate Cox Proportional Hazards Regression Analyses

Variables	Univariate analysis		
	HR	95% CI	p-value
Age	0.99	0.98–1.01	0.251
Sex (Female=1)	1.27	0.93–1.73	0.129
AF type (PAF=1)	0.70	0.52–0.94	0.017
lnBMI	2.85	1.04–7.84	0.042
Overweight/obese	1.50	1.11–2.01	0.007
lnBNP	1.26	1.10–1.44	0.001
Loop diuretics (use=1)	1.46	1.01–2.13	0.045
Beta-blocker (use=1)	1.37	1.02–1.84	0.034
Anti-arrhythmic drugs	1.23	0.91–1.65	0.172

(use=1)			
ablation procedure (Radiofrequency ablation=1)	1.34	0.99–1.82	0.061
LA dimension	1.04	1.02–1.06	<0.001

AF, atrial fibrillation; BNP, B-type natriuretic peptide; BMI, body mass index; CI, confidence interval; HR, hazard ratio; LA, left atrial.

Supplementary Table 3: Multivariate Cox Proportional Hazards Regression Analyses

Variables	Multivariate analysis (model 1)			Multivariate analysis (model 2)		
	HR	95%CI	p-value	HR	95%CI	p-value
AF type (paroxysmal AF=1)	0.86	0.61–1.21	0.372	0.93	0.66–1.32	0.684
Overweight/obese	1.40	1.00–1.94	0.049			
lnBMI				1.96	0.62–6.17	0.252
lnBNP	1.15	0.97–1.36	0.099	1.15	0.97–1.37	0.108
Loop diuretics (use=1)	1.15	0.76–1.76	0.510	1.11	0.73 -1.68	0.634
Beta blocker (use=1)	1.11	0.80–1.56	0.534	1.12	0.80–1.57	0.507
Ablation procedure (Radiofrequency ablation=1)	1.21	0.88–1.68	0.247	1.20	0.87–1.66	0.267
LA dimension	1.01	0.98–1.04	0.460	1.0140	0.99–1.04	0.324

AF, atrial fibrillation; BNP, B-type natriuretic peptide; BMI, body mass index; CI, confidence interval; HR, hazard ratio; LA, left atrial.

Supplementary Table 4: Postprocedural Adverse Events

	BMI <25kg/m ²		BMI ≥25kg/m ²		
	Cryoablation	Radiofreque ncy ablation	Cryoablati on	Radiofreque ncy ablation	p- value
	15/238	9/247	7/111	4/130	
Phrenic nerve injury (%)	8 (3.4)	3 (1.2)	3 (2.7)	1 (0.8)	0.245
Groin-site complication (%)	5 (2.1)	2 (0.8)	2 (1.8)	3 (2.3)	0.630
Gastrointestinal complication (%)	0 (0.0)	2 (0.8)	0 (0.0)	0 (0.0)	0.274
Cardiac tamponade or pericardial effusion (%)	2 (0.8)	2 (0.8)	1 (0.9)	0 (0.0)	0.775
Stroke or TIA (%)	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	0.136
Death (%)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	-

TIA, transient ischemic attack.

Supplementary Figure 1: Study Flowchart.

Supplemental Figure1

