

# **SUPPLEMENTAL MATERIAL**

**Table S1. Subgroup analysis according to sleep status: Sleep status according to the HFC tertile.**

	H1 N = 76	H2 N = 75	H3 N = 74
Age, years	57.38±10.32	56.87±11.73	58.62±10.87
Height, cm	164.02±8.45	167.96±8.62	165.54±8.39
Weight, kg	66.46±8.88	69.38±9.83	67.53±9.73
BMI, kg/m <sup>2</sup>	24.66±2.32	24.57±2.88	24.61±2.85
AF duration, day	384.73±75.59	431.25±75.26	537.51±96.31
CHA2DS2VASc	1.78±1.22	1.39±1.36	1.55±1.26
CHF, n (%)	6 (8.1)	5 (6.7)	10 (13.2)
HTN, n (%)	38 (51.4)	38 (50.7)	28 (36.8)
Age (>75), n (%)	2 (2.7)	2 (2.7)	2 (2.6)
DM, n (%)	15 (20.3)	11 (14.7)	16 (21.1)
Stroke, n (%)	5 (6.8)	3 (4)	6 (7.9)
TIA, n (%)	2 (2.7)	3 (4)	0
Vascular disease, n (%)	0	0	1 (1.3)
Age (65-75), n (%)	15 (20.3)	19 (25.3)	22 (28.9)
Male, %	34 (45.9)	60 (80.0)	51 (67.1)
CT			
LA volume, mL	116.27±23.59	118.70±26.76	122.49±30.01
Echocardiography			
LV Ejection Fraction, %	67.48±6.96	66.44±8.53	65.95±6.78
LA volume index, mL/m <sup>2</sup>	32.36±14.15	30.19±14.5	34.42±15.54
Sleep parameter			
HFC, %	49.37±8.36	28.55±4.22	11.60±5.97
LFC, %	29.22±9.44	43.04±10.55	51.30±12.02
VFLC, %	20.24±6.35	26.19±8.85	32.52±9.31
NB, %	1.11±2.72	2.78±4.23	2.24±4.70
BB, %	15.12±8.23	23.54±8.88	31.22±12.63
Recurrence	15 (20.3)	13 (17.3)	8 (10.5)

Values are presented as mean ± SD or number (%).

RFCA, radio-frequency catheter ablation; LFC, low frequency coupling; BMI, body mass index; CHF, congestive heart failure; TIA, transient ischemic attack; LA, left atrium; LAA, left atrial appendage; RA, right atrium; LV, left ventricle; HFC, high-frequency coupling; VLFC, very low frequency coupling; NB, narrow band; BB, broadband.

**Table S2. Subgroup analysis according to sleep status: Sleep status according to the LFC tertile.**

	L1 N = 75	L2 N = 76	L3 N = 74
Age, years	57.93±11.27	56.28±11.52	58.70±10.04
Height, cm	164.32±8.66	166.06±9.63	167.17±7.18
Weight, kg	66.44±8.87	68.68±9.75	68.27±9.90
BMI, kg/m <sup>2</sup>	24.56±2.24	24.93±3.18	24.34±2.55
AF duration, day	314.23±62.65	466.72±75.85	576.04±104.45
CHA2DS2VASc	1.75±1.23	1.51±1.38	1.46±1.24
CHF, n (%)	9 (12.0)	5 (6.6)	7 (9.5)
HTN, n (%)	37 (49.3)	40 (52.6)	27 (36.5)
Age (>75), n (%)	2 (2.7)	2 (2.6)	2 (2.7)
DM, n (%)	14 (18.7)	14 (18.4)	14 (18.9)
Stroke, n (%)	4 (5.3)	4 (5.3)	6 (8.1)
TIA, n (%)	1 (1.3)	1 (1.3)	3 (4.1)
Vascular disease, n (%)			1 (1.4)
Age (65-75), n (%)	19 (25.3)	18 (23.7)	19 (25.7)
Male, %	37 (49.3)	52 (68.4)	56 (75.7)
<b>CT</b>			
LA volume, mL	119.18±27.26	120.66±24.00	117.61±29.63
<b>Echocardiography</b>			
LV Ejection Fraction, %	65.95±9.06	67.66±6.85	66.28±5.97
LA volume index, mL/m <sup>2</sup>	31.83±15.44	33.42±13.11	31.88±15.75
<b>Sleep parameter</b>			
HFC, %	44.16±14.66	28.54±11.36	16.15±10.33
LFC, %	25.70±6.64	41.41±4.37	56.95±6.55
VLFC, %	27.00±10.29	27.65±10.01	24.43±8.37
NB, %	0.66±2.24	1.72±2.75	3.79±5.63
BB, %	11.93±5.75	24.11±6.58	34.19±10.64
Recurrence	11 (14.7)	18 (23.7)	7 (9.5)

Values are presented as mean ± SD or number (%).

RFCA, radio-frequency catheter ablation; LFC, low frequency coupling; BMI, body mass index; CHF, congestive heart failure; TIA, transient ischemic attack; LA, left atrium; LAA, left atrial appendage; RA, right atrium; LV, left ventricle; HFC, high-frequency coupling; VLFC, very low frequency coupling; NB, narrow band; BB, broadband.