

SUPPLEMENTAL MATERIAL

Appendix

LIST OF INVESTIGATORS

STEERING COMMITTEE:

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Table S1. Baseline Characteristics by Sex.

Factor	MALE	FEMALE	p-value
Number	231	115	
Age, mean (SD)	57.7273 (10.2469)	60.913 (9.05206)	0.005
Hypertension	78 (33.8%)	42 (36.5%)	0.61
Coronary Artery Disease	23 (10.0%)	6 (5.2%)	0.13
Heart Failure	2 (0.9%)	4 (3.5%)	0.080
Stroke or TIA	7 (3.0%)	9 (7.8%)	0.045
COPD	5 (2.2%)	2 (1.7%)	0.79
Sleep Apnea	33 (14.3%)	12 (10.4%)	0.32
Diabetes	19 (8.2%)	10 (8.7%)	0.88
Smoker	13 (5.6%)	4 (3.5%)	0.38
CHADSVASC*, median (IQR)	1 (0, 1)	2 (1, 3)	<0.001
Number of AAD failed, mean (SD)	1.85281 (.939463)	1.84348 (.942108)	0.93
Left Atrial Volume, mean (SD)	35.0141 (15.8881)	35.6463 (13.7734)	0.78
Left Ventricular Ejection Fraction, mean (SD)	59.32 (6.1589)	59.0022 (5.93829)	0.69
Body Mass Index, mean (SD)	29.1531 (5.29558)	29.0113 (5.18053)	0.81
Systolic BP, mean (SD)	129.67 (14.9463)	132.443 (21.2488)	0.16
Diastolic BP, mean (SD)	77.3478 (9.2906)	76.313 (12.2018)	0.38

Data are mean \pm SD, median (interquartile range), or number (percent).

*The CHA2DS2-VASc score is a clinical estimation of the risk of stroke in patients with atrial fibrillation, with scores ranging from 0 to 9, with higher scores indicating a greater risk.

Legend: AAD – antiarrhythmic drug, BP – blood pressure, COPD – chronic obstructive pulmonary disease, SD – standard deviation, TIA – transient ischemic attack

Table S2. Baseline Characteristics by Age Category.

Factor	<56 years	56-65 years	>65 years	p-value
Number	117	137	92	
Age, mean (SD)	47.547 (6.33068)	60.6423 (2.70549)	70.3152 (3.5485)	<0.001
Sex	25 (21.4%)	54 (39.4%)	36 (39.1%)	0.004
Hypertension	24 (20.5%)	54 (39.4%)	42 (45.7%)	<0.001
Coronary Artery Disease	4 (3.4%)	13 (9.5%)	12 (13.0%)	0.037
Heart Failure	2 (1.7%)	0 (0.0%)	4 (4.3%)	0.047
Stroke or TIA	3 (2.6%)	6 (4.4%)	7 (7.6%)	0.22
COPD	1 (0.9%)	2 (1.5%)	4 (4.4%)	0.17
Sleep Apnea	16 (13.7%)	21 (15.3%)	8 (8.7%)	0.33
Diabetes	4 (3.4%)	13 (9.5%)	12 (13.0%)	0.037
Smoker	9 (7.7%)	4 (2.9%)	4 (4.3%)	0.21
CHADSVASC*, median (IQR)	0 (0, 1)	1 (0, 2)	2 (1, 3)	<0.001
Number of AAD failed, mean (SD)	1.84615 (.906066)	1.89051 (.952387)	1.79348 (.966903)	0.75
Left Atrial Volume, mean (SD)	32.3516 (10.6444)	36.1156 (13.3478)	37.3812 (21.9024)	0.17
Left Ventricular Ejection Fraction, mean (SD)	59.6978 (5.99758)	59.0245 (5.95717)	58.8681 (6.41041)	0.63
Body Mass Index, mean (SD)	28.4145 (5.23256)	29.7277 (5.28585)	29.0562 (5.15864)	0.14
Systolic BP, mean (SD)	127.267 (14.3299)	129.708 (17.2768)	136.109 (19.5614)	<0.001
Diastolic BP, mean (SD)	77.7414 (10.1751)	76.6715 (10.9505)	76.5652 (9.67074)	0.64

Data are mean \pm SD, median (IQR), or n (%).

*The CHA2DS2-VASc score is a clinical estimation of the risk of stroke in patients with atrial fibrillation, with scores ranging from 0 to 9, with higher scores indicating a greater risk.

Legend: AAD – antiarrhythmic drug, BP – blood pressure, COPD – chronic obstructive pulmonary disease, SD – standard deviation, TIA – transient ischemic attack

Table S3. Baseline Characteristics by Ablation Success.

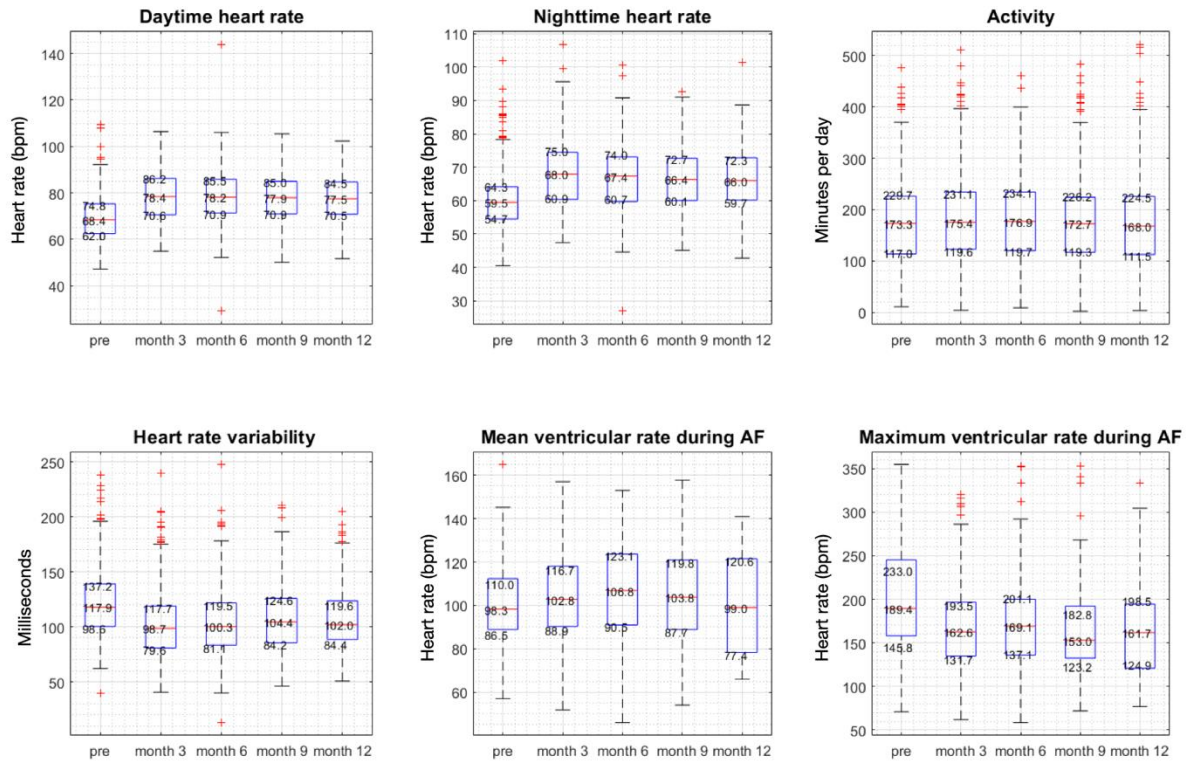
Factor	no AT/AF/AFL	AT/AF/AFL	p-value
Number	182	164	
Age, mean (SD)	57.3791 (10.0789)	60.3476 (9.63225)	0.006
Sex	54 (29.7%)	61 (37.2%)	0.14
Hypertension	57 (31.3%)	63 (38.4%)	0.17
Coronary Artery Disease	14 (7.7%)	15 (9.1%)	0.63
Heart Failure	2 (1.1%)	4 (2.4%)	0.34
Stroke or TIA	5 (2.7%)	11 (6.7%)	0.080
COPD	4 (2.2%)	3 (1.8%)	0.81
Sleep Apnea	20 (11.0%)	25 (15.2%)	0.24
Diabetes	14 (7.7%)	15 (9.1%)	0.63
Smoker	9 (4.9%)	8 (4.9%)	0.98
CHADSVASC*, median (IQR)	1 (0, 2)	1 (0, 2)	0.019
Number of AAD failed, mean (SD)	1.81868 (.943183)	1.88415 (.935984)	0.52
Left Atrial Volume, mean (SD)	33.0709 (14.0905)	37.7978 (16.1053)	0.027
Left Ventricular Ejection Fraction, mean (SD)	59.8788 (5.90968)	58.436 (6.19926)	0.051
Body Mass Index, mean (SD)	28.9778 (5.25211)	29.2466 (5.26051)	0.64
Systolic BP, mean (SD)	131.298 (18.35)	129.817 (16.1322)	0.43
Diastolic BP, mean (SD)	77.6409 (10.4572)	76.2988 (10.2072)	0.23

Data are mean \pm SD, median (IQR), or n (%).

*The CHA2DS2-VASc score is a clinical estimation of the risk of stroke in patients with atrial fibrillation, with scores ranging from 0 to 9, with higher scores indicating a greater risk.

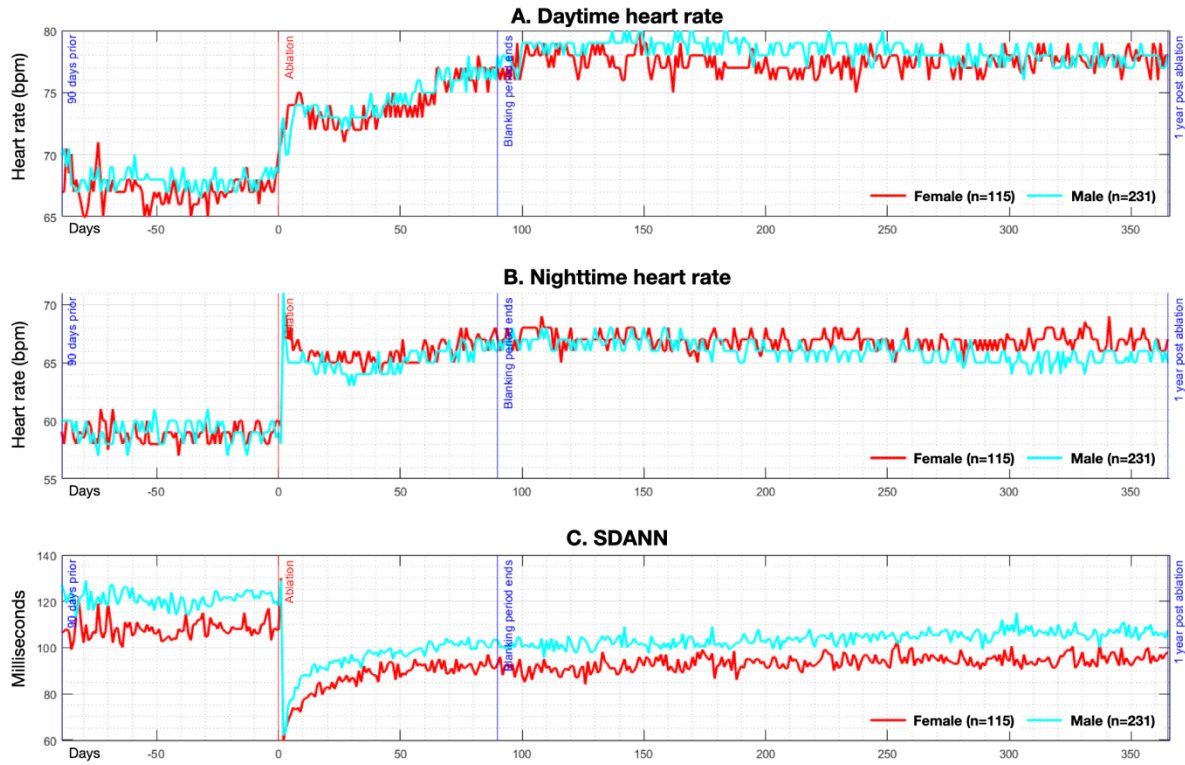
Legend: AAD – antiarrhythmic drug, BP – blood pressure, COPD – chronic obstructive pulmonary disease, SD – standard deviation, TIA – transient ischemic attack

Figure S1. Longitudinal changes over time; pre denotes the 30-day period before ablation; the rest were also 30-day periods measured starting at different months after ablation.



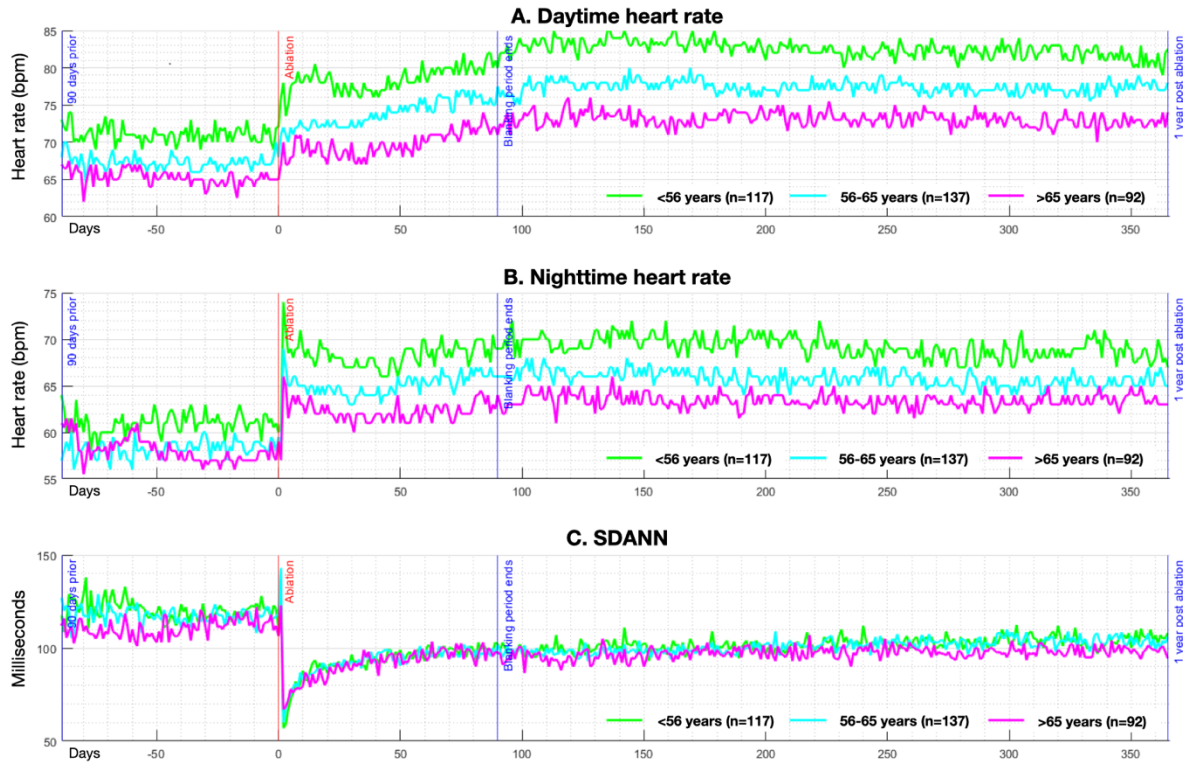
bpm – beats per minute

Figure S2. Autonomic Alterations Pre- and Post-Pulmonary Vein Isolation, Stratified by Sex.



Pictured are median values of the daytime heart rate (panel A), mean nighttime heart rate (Panel B), and mean heart rate variability (Panel C). Date of ablation is noted as time zero on the Y axis, with a range of -100 days prior to ablation, and +365 days post ablation. Blue line depicts male patients; magenta lines depict female patients. bpm – beats per minute, msec - milliseconds

Figure S3. Autonomic Alterations Pre- and Post-Pulmonary Vein Isolation, Stratified by Age.



Pictured are the median values of the daytime heart rate (panel A), mean nighttime heart rate (Panel B), and mean heart rate variability (Panel C). Date of ablation is noted as time zero on the Y axis, with a range of -100 days prior to ablation, and +365 days post ablation. Green line depicts patients <56 years of age, blue line depicts patients 56-65 years of age, and magenta line depicts those >66 years of age. bpm – beats per minute, msec – milliseconds.