Table S1. Linear regression analyses for homoarginine in relation to electrocardiographic, and echocardiographic variables in the total cohort, adjusted for age and sex.

| Clinical Variables | Beta (95\% CI) | Beta per SD <br> $\mathbf{( 9 5 \% ~ C I )}$ | $P$-Value |
| :---: | :---: | :---: | :---: |
| PQ interval | $0.49(-0.40-1.38)$ | $0.41(-0.34-1.16)$ | 0.28 |
| P wave duration | $0.18(-0.30-0.66)$ | $0.15(-0.25-0.56)$ | 0.46 |
| Ventricular rate | $0.55(0.15-0.95)$ | $0.47(0.13-0.81)$ | 0.0069 |
| QRS duration | $0.06(-0.44-0.55)$ | $0.05(-0.37-0.47)$ | 0.82 |
| QTc interval | $1.02(0.12-1.92)$ | $0.86(0.10-1.62)$ | 0.026 |
| Left atrial area | $0.09(-0.05-0.23)$ | $0.08(-0.04-0.19)$ | 0.19 |
| E/A | $-0.03(-0.04-(-0.01))$ | $-0.02(-0.03-(-0.01))$ | $<0.001$ |
| E/E' | $0.11(0.01-0.21)$ | $0.10(0.01-0.18)$ | 0.025 |
| Deceleration time | $0.65(-1.32-2.61)$ | $0.55(-1.11-2.21)$ | 0.52 |
| Left ventricular ejection fraction | $0.29(0.02-0.55)$ | $0.24(0.02-0.46)$ | 0.032 |
| Left ventricular mass | $1.31(-0.25-2.88)$ | $1.11(-0.21-2.43)$ | 0.099 |

Table S2. Multivariable-adjusted linear regression analyses of homoarginine in relation to electrocardiographic, and echocardiographic variables in the total cohort, adjusted for cardiovascular risk factors and creatinine.

| Clinical Variables | Beta (95\% CI) | Beta per SD <br> $\mathbf{( 9 5 \% ~ C I )}$ | $\boldsymbol{P}$-Value |
| :---: | :---: | :---: | :---: |
| PQ interval | $-0.24(-1.14-0.66)$ | $-0.20(-0.96-0.56)$ | 0.60 |
| P wave duration | $-0.37(-0.85-0.11)$ | $-0.31(-0.72-0.09)$ | 0.13 |
| Ventricular rate | $0.29(-0.10-0.68)$ | $0.24(-0.09-0.57)$ | 0.15 |
| QRS duration | $-0.10(-0.60-0.40)$ | $-0.08(-0.50-0.34)$ | 0.70 |
| QTc interval | $0.35(-0.54-1.24)$ | $0.29(-0.46-1.04)$ | 0.45 |
| Left atrial area | $-0.15(-0.28-(-0.02))$ | $-0.13(-0.23-(-0.02))$ | 0.021 |
| E/A | $-0.01(-0.03-(-0.003))$ | $-0.01(-0.02-(-0.002))$ | 0.014 |
| E/E' | $0.05(-0.05-0.15)$ | $0.04(-0.04-0.12)$ | 0.31 |
| Deceleration time | $0.76(-1.23-2.76)$ | $0.64(-1.04-2.33)$ | 0.45 |
| Left ventricular ejection fraction | $0.18(-0.06-0.43)$ | $0.16(-0.05-0.36)$ | 0.14 |
| Left ventricular mass | $-1.44(-2.88-0.00)$ | $-1.22(-2.44-0.00)$ | 0.05 |

Table S3. Multivariable-adjusted linear regression analyses of homoarginine in relation to electrocardiographic and echocardiographic variables including the interaction of homoarginine with AF status.

Category $\quad$ Beta (95\% CI) | Beta per SD |
| :---: |
| $(95 \% \mathrm{CI})$ |$\quad P$ Value

(a) Electrocardiographic variables

|  | Category | Beta (95\% CI) | Beta per SD <br> (95\% CI) | $P$ Value |
| :---: | :---: | :---: | :---: | :---: |
|  |  | PQ interval |  |  |
| $P$ interaction 0.58 |  |  |  |  |
|  | No AF | -0.2 (-1.11-0.7) | -0.17 (-0.93-0.59) | 0.66 |
|  | AF | -2.03 (-8.42-4.36) | -1.71 (-7.11-3.68) | 0.53 |
|  |  | $P$ wave duration |  |  |
| Pinteraction 0.095 |  |  |  |  |
|  | No AF | -0.43 (-0.92-0.05) | -0.37 (-0.77-0.04) | 0.076 |
|  | AF | 2.48 (-0.91-5.87) | 2.09 (-0.77-4.95) | 0.15 |
|  |  | Ventricular heart rate |  |  |
| Pinteraction 0.71 |  |  |  |  |
|  | No AF | 0.34 (-0.05-0.74) | 0.29 (-0.05-0.62) | 0.091 |
|  | AF | -0.05 (-2.06-1.96) | -0.04 (-1.74-1.66) | 0.96 |
|  |  | QRS duration |  |  |
| Pinteraction 0.080 |  |  |  |  |
|  | No AF | 0.01 (-0.49-0.52) | 0.01 (-0.42-0.44) | 0.96 |
|  | AF | -2.33 (-4.9-0.25) | -1.97 (-4.14-0.21) | 0.076 |
|  |  | QTc interval |  |  |
| Pinteraction 0.23 |  |  |  |  |
|  | No AF | 0.49 (-0.41-1.39) | 0.41 (-0.35-1.17) | 0.29 |
|  | AF | -2.35 (-6.94-2.24) | -1.99 (-5.86-1.89) | 0.32 |
|  | (b) | Echocardiographic variables |  |  |
|  |  | Left atrial area |  |  |
| Pinteraction 0.22 |  |  |  |  |
|  | No AF | -0.13 (-0.26-0) | -0.11 (-0.22-0) | 0.047 |
|  | AF | -0.55 (-1.2-0.11) | -0.46-1.01-0.09) | 0.10 |
|  |  | E/A |  |  |
| Pinteraction 0.50 |  |  |  |  |
|  | No AF | -0.01 (-0.03-0) | -0.01 (-0.02-0) | 0.019 |
|  | AF | -0.04 (-0.12-0.04) | -0.03 (-0.1-0.03) | 0.29 |
|  |  | E/E' |  |  |
| Pinteraction 0.92 |  |  |  |  |
|  | No AF | 0.04 (-0.05-0.14) | 0.04 (-0.05-0.12) | 0.38 |
|  | AF | 0.07 (-0.43-0.57) | 0.06 (-0.36-0.48) | 0.78 |

## Deceleration time

Pinteraction 0.20

|  | Category | Beta (95\% CI) | Beta per SD <br> ( $95 \% \mathrm{CI}$ ) | $P$ Value |
| :---: | :---: | :---: | :---: | :---: |
|  | No AF | 0.4 (-1.62-2.43) | 0.34 (-1.37-2.06) | 0.70 |
|  | AF | 7.21 (-3.08-17.5) | 6.1 (-2.6-14.8) | 0.17 |
| Left ventricular ejection fraction |  |  |  |  |
| Pinteraction 0.096 |  |  |  |  |
|  | No AF | 0.15 (-0.1-0.4) | 0.13 (-0.08-0.34) | 0.23 |
|  | AF | 1.24 (-0.02-2.51) | 1.05 (-0.02-2.12) | 0.054 |
| Left ventricular mass |  |  |  |  |
| Pinteraction 0.21 |  |  |  |  |
|  | No AF | -1.22 (-2.67-0.24) | -1.03 (-2.25-0.2) | 0.10 |
|  | AF | -5.97 (-13.35-1.4) | -5.05 (-11.28-1.18) | 0.11 |


#### Abstract

SD: standard deviation, CI: Confidence interval. The regressors comprised homoarginine, atrial fibrillation, their interaction and cardiovascular risk factors including age, sex, body mass index, systolic blood pressure, antihypertensive medication, diabetes, active smoking, family history of myocardial infarction, dyslipidemia and congestive heart failure. $\mathrm{E} / \mathrm{A}$ and $\mathrm{E} / \mathrm{E}^{\prime}$ were available in $N=78$ individuals with paroxysmal AF who were not in AF during the study ECG. For these analyses confidence intervals (and p-values) for the HOMO coefficient on each category (no AF or AF) are computed using the methods described in Figueiras, Domenech-Massons, and Cadarso (1998) [53].


## References

53.Figueiras, A.; Domenech-Massons, J.M.; Cadarso, C. Regression models: calculating the confidence interval of effects in the presence of interactions. Stat. Med. 1998, 17, 2099-2105.
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