

Supplemental Material

Table S1. Logistic regression analysis for variables predicting an improved renal function ($\Delta eGFR_{5yr} \geq 1$) after 5-years of follow-up (n=2,284).

	Univariate		Multivariate Model	
	OR (95% CI)	P-value	OR (95% CI)	P-value
Age	0.979 (0.972-0.987)	<0.001	0.980 (0.972-0.989)	<0.001
Male	0.899 (0.747-1.082)	0.261		
Body mass index	1.016 (0.988-1.044)	0.264		
CHA ₂ DS ₂ VASc score	0.952 (0.902-1.004)	0.070		
CHF	0.717 (0.484-1.063)	0.098		
Hypertension	0.846 (0.718-0.998)	0.047	1.008 (0.829-1.226)	0.938
Diabetes	0.897 (0.721-1.116)	0.329		
Stroke/TIA	0.955 (0.737-1.236)	0.725		
Vascular disease	1.041 (0.825-1.312)	0.737		
ACEi/ARB use	0.814 (0.686-0.965)	0.018	0.885 (0.727-1.078)	0.224
BB use	0.865 (0.722-1.037)	0.118		
Statin use	0.996 (0.830-1.195)	0.965		
AFCA	1.844 (1.522-2.233)	<0.001	1.845 (1.521-2.237)	<0.001

OR = odd ratio, CI = confidence interval, CHF = congestive heart failure, TIA = transient ischemic attack, ACEi = angiotensin-converting enzyme inhibitor, ARB = angiotensin type II receptor blocker, BB = beta blocker, AFCA = atrial fibrillation catheter ablation.

Table S2. Logistic regression analysis for variables predicting an improved renal

function ($\Delta\text{eGFR}_{5\text{yr}} > 5$) after 5-years of follow-up (n=2,284).

	Univariate		Multivariate Model	
	OR (95% CI)	P-value	OR (95% CI)	P-value
Age	0.979 (0.971-0.987)	<0.001	0.980 (0.927-0.989)	<0.001
Male	0.840 (0.697-1.012)	0.067		
Body mass index	1.011 (0.983-1.039)	0.464		
CHA ₂ DS ₂ VASc score	0.949 (0.898-1.002)	0.060		
CHF	0.750 (0.502-1.121)	0.161		
Hypertension	0.825 (0.698-0.974)	0.024	1.033 (0.846-1.261)	0.750
Diabetes	0.758 (0.605-0.949)	0.016	0.838 (0.663-1.060)	0.140
Stroke/TIA	1.040 (0.802-1.350)	0.767		
Vascular disease	0.976 (0.771-1.235)	0.839		
ACEi/ARB use	0.784 (0.659-0.932)	0.006	0.857 (0.702-1.046)	0.129
BB use	0.853 (0.710-1.026)	0.091		
Statin use	0.959 (0.797-1.154)	0.657		
AFCA	1.223 (1.010-1.481)	0.039	1.225 (1.010-1.486)	0.039

OR = odd ratio, CI = confidence interval, CHF = congestive heart failure, TIA = transient

ischemic attack, ACEi = angiotensin-converting enzyme inhibitor, ARB = angiotensin type II

receptor blocker, BB = beta blocker, AFCA = atrial fibrillation catheter ablation.

Table S3. Linear regression analysis for variables predicting a change in eGFR

($\Delta\text{eGFR}_{5\text{yr}}$) after 5-years of follow-up (n=2,284).

	Univariate		Multivariate Model	
	B (95% CI)	P-value	B (95% CI)	P-value
Age	-0.200 (-0.263 to -0.136)	<0.001	-0.173 (-0.240 to -0.105)	<0.001
Male	-1.398 (-2.886 to 0.090)	0.066		
Body mass index	0.239 (0.016 to 0.461)	0.035	0.256 (0.028 to 0.485)	0.028
CHA ₂ DS ₂ VASc score	-0.713 (-1.141 to -0.285)	0.001		
CHF	-0.402 (-3.490 to 2.687)	0.799		
Hypertension	-1.658 (-2.978 to -0.337)	0.014	0.568 (-1.017 to 2.153)	0.482
Diabetes	-2.394 (-4.141 to -0.647)	0.007	-1.576 (-3.368 to 0.216)	0.085
Stroke/TIA	-1.387 (-3.458 to 0.683)	0.189		
Vascular disease	-0.471 (-2.338 to 1.395)	0.621		
ACEi/ARB use	-2.214 (-3.576 to -0.852)	0.001	-1.614 (-3.172 to -0.056)	0.042
BB use	-2.060 (-3.506 to -0.613)	0.005	-1.723 (-3.199 to -0.246)	0.022
Statin use	-0.945 (-2.408 to 0.519)	0.206		
AFCA	2.553 (1.030 to 4.077)	0.001	2.439 (0.929 to 3.949)	0.002

CI = confidence interval, CHF = congestive heart failure, TIA = transient ischemic attack, ACEi = angiotensin-converting enzyme inhibitor, ARB = angiotensin type II receptor blocker, BB = beta blocker, AFCA = atrial fibrillation catheter ablation

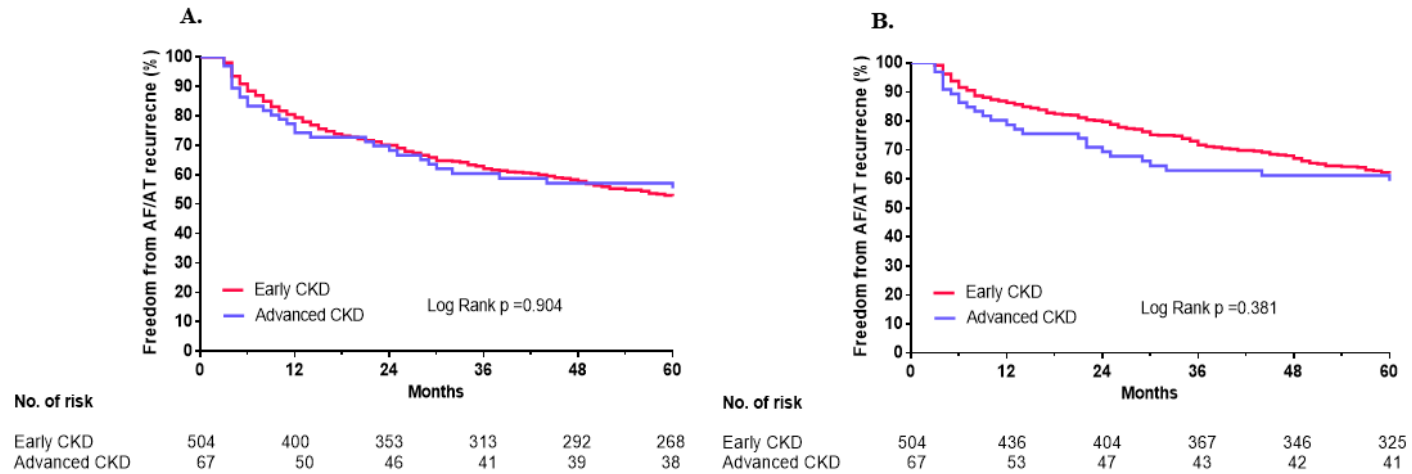
Table S4. Logistic regression analysis of the baseline risk factors predicting advanced CKD among the overall patients with AFCA (n=571).

	Univariate	Multivariate
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	OR (95% CI)	p-value	OR (95% CI)	p-value
Age	1.111 (1.074-1.149)	<0.001	1.105 (1.066-1.145)	<0.001
Male	1.142 (0.637-2.048)	0.655		
PAF at procedure	0.579 (0.345-0.970)	0.038	0.784 (0.427-1.440)	0.433
Body mass index	1.046 (0.958-1.142)	0.318		
Body surface area	1.222 (0.279-5.355)	0.790		
CHA ₂ DS ₂ VASc score	1.535 (1.308-1.800)	<0.001		
Congestive heart failure	2.440 (1.004-5.927)	0.049	2.057 (0.756-5.593)	0.158
Hypertension	3.235 (1.816-5.763)	<0.001	1.858 (0.987-3.497)	0.055
Diabetes	2.711 (1.541-4.769)	0.001	1.542 (0.817-2.910)	0.181
Stroke/TIA	1.376 (0.665-2.844)	0.389		
Vascular disease	1.945 (1.065-3.552)	0.030	0.952 (0.489-1.852)	0.885
LA dimension	1.070 (1.026-1.115)	0.002	1.054 (1.001-1.110)	0.046
LVEF	0.983 (0.954-1.013)	0.268		
E/Em	1.036 (0.992-1.081)	0.110		

CKD = chronic kidney disease, AFCA = atrial fibrillation catheter ablation, PAF = paroxysmal atrial fibrillation, TIA = transient ischemic attack, LA = left atrium, LVEF = left ventricular ejection fraction, E/Em = the ratio of the early diastolic mitral inflow velocity (E) to the early diastolic mitral annular velocity (Em)

Figure S1. Kaplan-Meier analysis of an AF/AT recurrence after a single AF ablation (A) and the last AF ablation (B) according to baseline advanced CKD.



AF = atrial fibrillation, AT = atrial tachycardia, CKD = chronic kidney disease.