

1 **Prognostic impact of left atrial appendage patency after device closure**

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3 Short title: LAA patency and post-LAAC outcomes

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5 Mu Chen[†], MD, Peng-Cheng Yao[†], MD, Zhen-Tao Fei, MD, Qun-Shan Wang, MD, Yi-Chi
6 Yu, MD, Peng-Pai Zhang, MD, Wei Li, MD, Rui Zhang, MD, Bin-Feng Mo, MD, Ming-Zhe
7 Zhao, MD, Yi Yu, MD, Mei Yang, MD, Yan Zhao, MD, Chang-Qi Gong, MD, Jian Sun^{*}, MD,
8 Yi-Gang Li^{*}, MD

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10 [†] These authors contribute equally to this work.

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12 Department of Cardiology, Xinhua Hospital, School of Medicine, Shanghai Jiao Tong
13 University, Shanghai, China

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15 *Correspondence: Yi-Gang Li, MD and Jian Sun, MD.

16 Department of Cardiology, Xinhua Hospital, School of Medicine, Shanghai Jiao Tong
17 University

18 1665 Kongjiang Road, Shanghai 200092, China

19 Tel.: +86-21-25077265

20 E-mail: liyigang@xinquamed.com.cn; sunjian@xinquamed.com.cn

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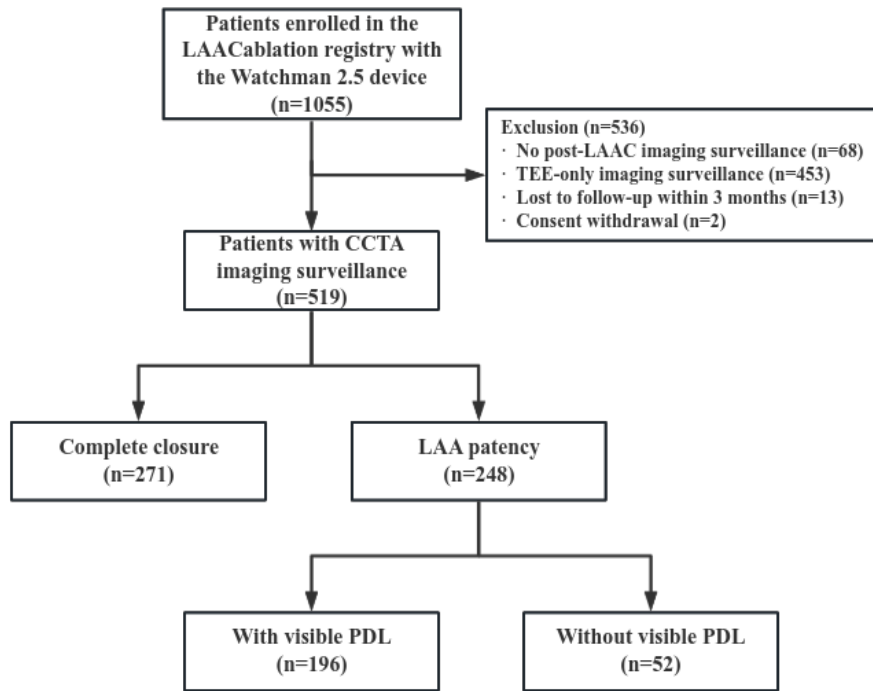
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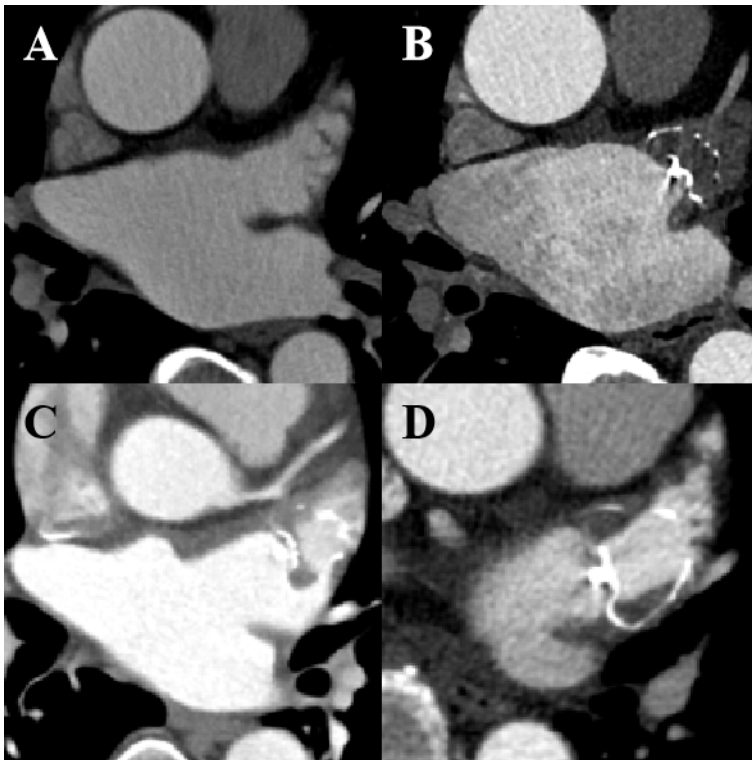
SUPPLEMENTAL MATERIAL

25 **Figure S1. Study flowchart.**



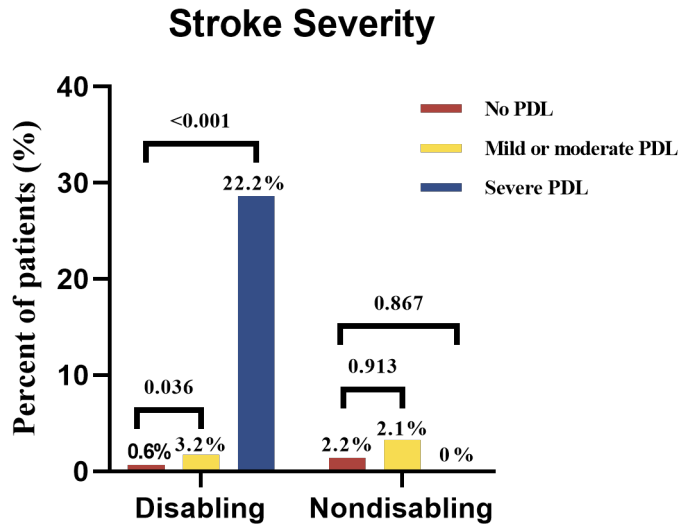
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27 CCTA=cardiac computed tomography angiography; LAA=left atrial appendage; LAAC=left
28 atrial appendage closure; PDL=peri-device leak; TEE=transesophageal echocardiogram.

29 **Figure S2. Imaging of left atrial appendage before and after Watchman device**
30 **implantation.**



31
32 The CCTA images show preoperative LAA (A), and postoperative LAA with complete closure
33 (B), LAA patency with visible PDL (C) and LAA patency without visible PDL (or termed as
34 IDE, D).
35 CCTA=cardiac computed tomography angiography; IDE=incomplete device
36 endothelialization; LAA=left atrial appendage.

37 **Figure S3. Impact of the PDL on stroke severity.**

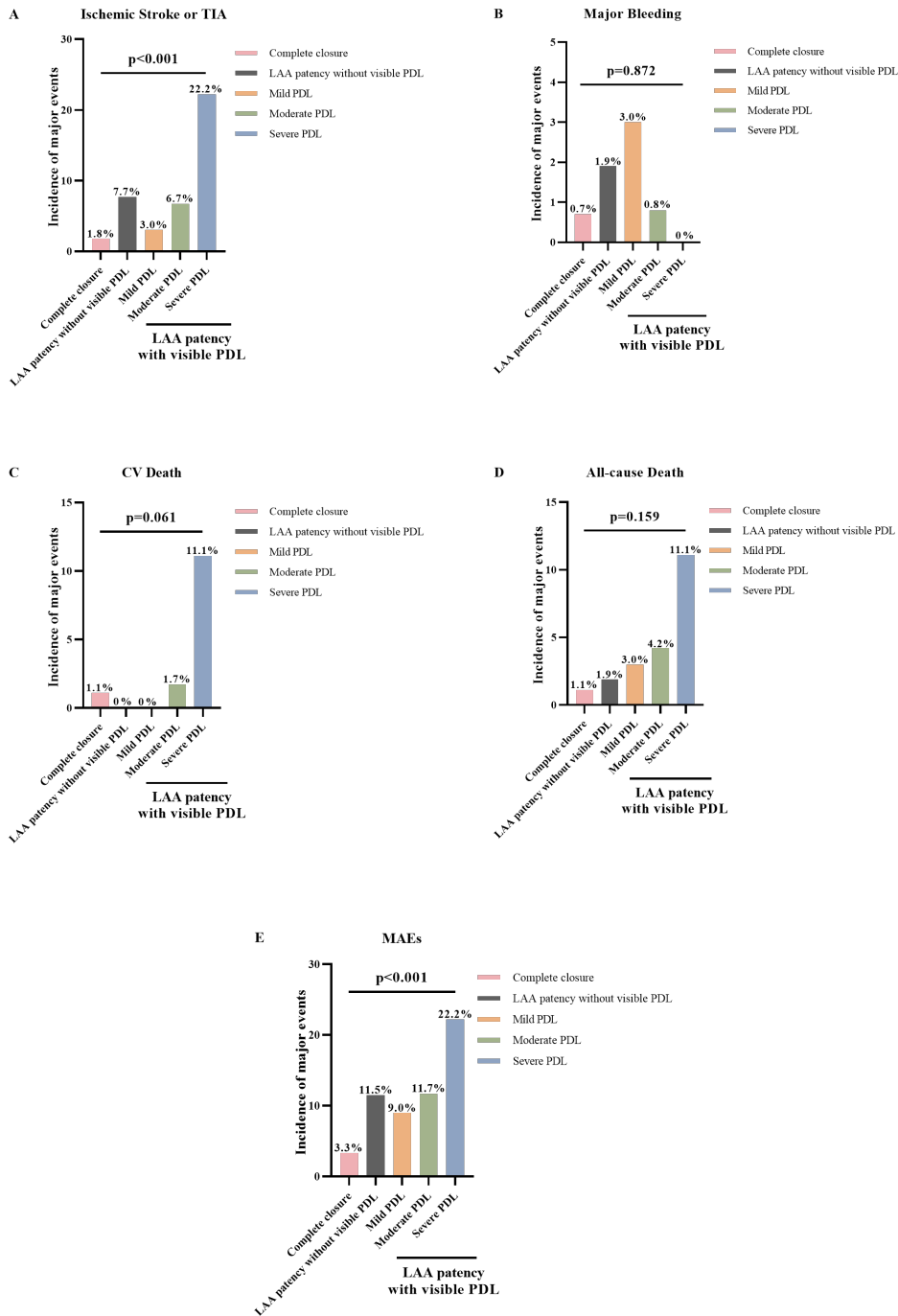


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39 Impact of PDL severity (no PDL, mild or moderate PDL [≤ 5 mm], or severe PDL [> 5 mm]) on
40 disabling or fatal (left panel) and nondisabling (right panel) strokes. Of note, no PDL includes
41 complete closure and LAA patency without visible PDL.

42 LAA=left atrial appendage; PDL=peri-device leak.

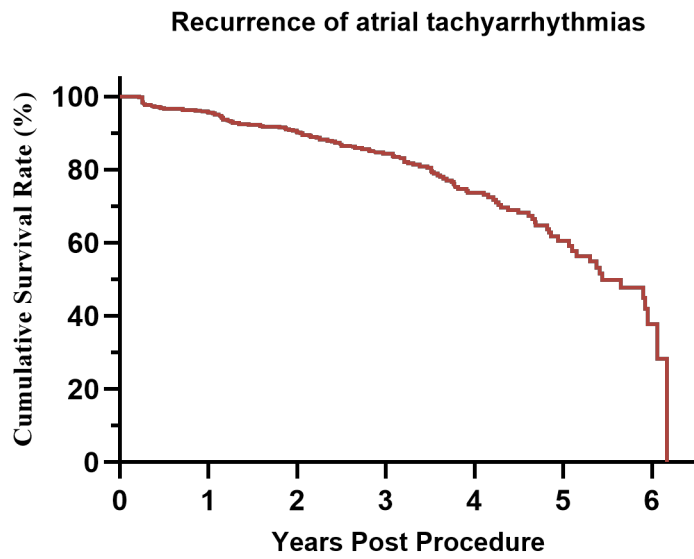
1 **Figure S4. Patency severity and incidences of adverse events.**



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 3 Patency severity (complete closure, LAA patency without visible PDL, mild PDL [$>0-$
 4 ≤ 3 mm], moderate PDL [$>3-\leq 5$ mm], or severe PDL [>5 mm]) and incidence of adverse events
 5 post-LAAC, including ischemic stroke or TIA (A), major bleeding (B), CV death (C), all-
 6 cause death (D) and MAEs (E).

7 CV=cardiovascular; LAA=left atrial appendage; LAAC=left atrial appendage closure;
 8 MAEs= major adverse events; PDL=peri-device leak; TIA=transient ischemic attack.

Figure S5. Kaplan-Meier curve of recurrent atrial tachyarrhythmias.



Note that patients underwent ablation prior to LAAC during the same procedure.

Table S1. The inclusion and exclusion criteria for the LAACablation registry.

Inclusion criteria
1) History of paroxysmal/persistent/longstanding persistent atrial fibrillation
2) With contraindication of long-term anticoagulation, or unwilling to receive long-term anticoagulation
3) CHA ₂ DS ₂ -VASc score ≥ 2 and/or HAS-BLED score ≥ 3
4) Undergo the combined procedure of catheter ablation and left atrial appendage closure
5) With informed consent to participate in the study
6) Age between 18 and 90 years
Exclusion Criteria
1) Myocardial infarction within 3 months
2) Stroke or systemic embolism within 3 months
3) With a plan to receive heart transplantation
4) Life expectancy less than 1 year
5) Severe bleeding diseases that cannot be treated with short-term anticoagulants
6) With left atrial or left atrial appendage thrombus
7) With uncontrolled malignant tumors
8) Obvious liver and kidney dysfunction (ALT, AST more than 2 times of the upper limit of normal, or CCr <50%)
9) Women who are pregnant or breastfeeding
10) Other conditions not suitable to receive the procedure evaluated by the operators

ALT=alanine transaminase; AST=aspartate aminotransferase; CCr=creatinine clearance normalized 1.73 m² body surface area.

Table S2. Baseline characteristics of complete closure, LAA patency with and without visible PDL groups.

Characteristics	Complete closure (n=271)	LAA patency with visible PDL (n=196)	LAA patency without visible PDL (n=52)	P value
Age (years)	69.7 ± 7.7	70.9 ± 7.8	71.9 ± 8.2	0.099
Male	145 (53.5)	102 (52.0)	28 (53.8)	0.944
Paroxysmal AF	126 (46.5)	87 (44.4)	25 (48.1)	0.853
Hypertension	200 (73.8)	152 (77.6)	42 (80.8)	0.445
Diabetes	62 (22.9)	55 (28.1)	14 (26.9)	0.426
Coronary artery disease	117 (43.2)	87 (44.4)	30 (57.7)	0.151
History of stroke/TIA	63 (23.2)	47 (24.0)	17 (32.7)	0.342
Heart Failure	138 (50.9)	104 (53.1)	22 (42.3)	0.386
CHA ₂ DS ₂ -VASc score	3.6 ± 1.4	3.9 ± 1.7	3.8 ± 1.6	0.194
HAS-BLED score	2.1 ± 0.9	2.0 ± 1.0	2.1 ± 0.8	0.268
NT-proBNP (pg/mL)	523.4 [163.1, 1057.7]	655.4 [201.6, 1299.5]	653.7 [297.4, 1286.0]	0.688
LAD (mm)	42.5 ± 6.4	42.5 ± 5.8	43.6 ± 4.9	0.484
LVEF (%)	62.5 ± 7.3	62.3 ± 6.7	61.2 ± 11.0	0.520
Device sizes (mm)				
21	27 (10.0)	15 (7.7)	3 (5.8)	
24	56 (20.7)	44 (22.4)	7 (13.5)	
27	73 (26.9)	51 (26.0)	17 (32.7)	0.271
30	66 (24.4)	46 (23.5)	11 (21.2)	
33	49 (18.1)	40 (20.4)	14 (26.9)	
Lesion sets of catheter ablation				
Pulmonary vein isolation only	83 (30.7)	62 (31.6)	17 (32.7)	0.945
Left atrial roof line	100 (37.0)	75 (38.3)	23 (44.2)	0.639
Left atrial posterior and/or inferior lines	56 (20.7)	34 (17.3)	10 (19.2)	0.669
Posterior wall isolation	19 (7.0)	12 (6.1)	2 (3.8)	0.683
Anterior septal line	93 (34.4)	63 (32.1)	17 (32.7)	0.840
Mitral isthmus line	78 (28.9)	46 (23.5)	11 (21.2)	0.305

CS and great vein musculature ablation	37 (13.7)	16 (8.2)	7 (13.5)	0.169
Vein of Marshall ethanol infusion	23 (8.5)	17 (7.7)	0 (0.0)	0.096
Left atrial appendage electrical isolation	10 (3.7)	3 (1.5)	1 (1.9)	0.341
Cavo-tricuspid line	109 (40.4)	63 (32.1)	20 (38.5)	0.198
Superior vena cava isolation	33 (12.2)	18 (9.2)	8 (15.4)	0.380
CFAE ablation	23 (8.5)	14 (7.1)	5 (9.6)	0.796
Intracardiac cardioversion	73 (27.0)	55 (28.1)	12 (23.1)	0.772
Discontinued antiplatelet therapy at 6 months	64 (23.6)	50 (25.5)	10 (19.2)	0.633

Values are mean \pm SD, median [25th, 75th quartiles] or n (%).

AF=atrial fibrillation; CFAE=Complex fractionated atrial electrograms; CS=coronary sinus; LAA=left atrial appendage; LAD=left atrial diameter; LVEF=left ventricular ejection fraction; PDL=peri-device leak; TIA=transient ischemic attack.

Table S3. Antithrombotic therapy at each time point.

Number of patients/groups		Complete closure	LAA patency with visible PDL	LAA patency without visible PDL
6-month post-LAAC	Patient number	271	196	52
	No therapy	42 (15.5)	39 (19.9)	3 (5.8)
	Single antiplatelet	198 (73.1)	96 (49.0)	41 (78.8)
	Dual antiplatelet	26 (9.6)	51 (26.0)	6 (11.5)
	Oral anticoagulant	5 (1.8)	10 (5.1)	2 (3.8)
12-month post-LAAC	Patient number	265	171	49
	No therapy	45 (17.0)	49 (28.7)	2 (4.1)
	Single antiplatelet	211 (79.6)	100 (58.5)	42 (85.7)
	Dual antiplatelet	7 (2.6)	20 (11.7)	5 (10.2)
	Oral anticoagulant	2 (0.8)	2 (1.2)	0 (0.0)
24-month post-LAAC	Patient number	225	155	41
	No therapy	50 (22.2)	49 (31.6)	5 (12.2)
	Single antiplatelet	169 (75.1)	91 (58.7)	36 (87.8)
	Dual antiplatelet	4 (1.8)	15 (9.7)	0 (0.0)
	Oral anticoagulant	2 (0.9)	0 (0.0)	0 (0.0)
36-month post-LAAC	Patient number	158	103	32
	No therapy	50 (31.6)	36 (35.0)	5 (15.6)
	Single antiplatelet	104 (65.8)	61 (59.2)	27 (84.4)
	Dual antiplatelet	3 (1.9)	6 (5.8)	0 (0.0)
	Oral anticoagulant	1 (0.6)	0 (0.0)	0 (0.0)
48-month post-LAAC	Patient number	84	58	18
	No therapy	36 (42.9)	25 (43.1)	3 (16.7)
	Single antiplatelet	48 (47.1)	29 (50.0)	5 (83.3)
	Dual antiplatelet	0 (0.0)	4(6.9)	0 (0.0)
	Oral anticoagulant	0 (0.0)	0 (0.0)	0 (0.0)
60-month post-LAAC	Patient number	39	19	7
	No therapy	27 (69.2)	9 (47.4)	2 (28.6)

	Single antiplatelet	12 (30.8)	7 (36.8)	5 (71.4)
	Dual antiplatelet	0 (0.0)	3 (15.8)	0 (0.0)
	Oral anticoagulant	0 (0.0)	0 (0.0)	0 (0.0)
	Patient number	6	1	0
72-month post-LAAC	No therapy	4 (66.7)	0 (0.0)	-
	Single antiplatelet	2 (33.3)	1 (100.0)	-
	Dual antiplatelet	0 (0.0)	0 (0.0)	-
	Oral anticoagulant	0 (0.0)	0 (0.0)	-

Values are presented as n (%).

LAA=left atrial appendage; LAAC=left atrial appendage closure; PDL=peri-device leak.

Table S4. Baseline characteristics among groups with different PDL severity.

Characteristics	No PDL (n=323)*	Mild PDL (n=67)	Moderate PDL (n=120)	P value
Age (years)	70.1 ± 7.8	70.6 ± 7.3	70.9 ± 7.9	0.580
Male	173 (53.6)	31 (46.3)	67 (55.8)	0.440
Paroxysmal AF	151 (46.7)	28 (41.8)	55 (45.8)	0.760
Hypertension	242 (74.9)	54 (80.6)	91 (75.8)	0.614
Diabetes	76 (23.5)	22 (32.8)	30 (25.0)	0.278
Coronary artery disease	147 (45.5)	30 (44.8)	54 (45.0)	0.991
History of stroke/TIA	80 (24.8)	12 (17.9)	30 (25.0)	0.464
Heart Failure	160 (49.5)	34 (50.7)	66 (55.0)	0.592
CHA ₂ DS ₂ -VASc score	3.7 ± 1.4	3.9 ± 1.5	3.9 ± 1.7	0.334
HAS-BLED score	2.1 ± 0.9	2.0 ± 0.9	1.9 ± 0.9	0.095
NT-proBNP (pg/mL)	523.4 [163.1, 1057.7]	649.1 [195.7, 1241.3]	653.7 [297.4, 1286.0]	0.748
LAD (mm)	42.7 ± 6.2	43.2 ± 6.2	42.1 ± 5.5	0.453
LVEF (%)	62.2 ± 8.0	61.3 ± 8.1	62.8 ± 5.9	0.456
Device size (mm)				
21	30 (9.0)	3 (4.5)	12 (10.0)	
24	63 (19.5)	10 (14.9)	33 (27.5)	
27	90 (27.9)	20 (29.9)	30 (25.0)	0.136
30	77 (23.8)	14 (20.9)	29 (24.2)	
33	63 (19.5)	20 (29.9)	16 (13.3)	

Values are mean ± SD, median [25th, 75th quartile] or n (%).

*No PDL group includes complete closure and LAA patency without visible PDL.

AF=atrial fibrillation; LAD=left atrial diameter; LVEF=left ventricular ejection fraction; PDL=peri-device leak; TIA=transient ischemic attack.

Table S5. Relative risks of clinical endpoints for LAA patency without visible PDL.

Outcomes	Complete closure (n=271)	LAA patency without visible PDL (n=52)	HR (95% CI)	P value
Ischemic stroke/TIA	5 (1.8)	3 (5.8)	4.38 (1.17-16.34)	0.028
Major bleeding	2 (0.7)	1 (1.9)	2.70 (0.25-29.83)	0.417
CV death	3 (1.1)	0 (0.0)	-	-
All-cause death	3 (1.1)	1 (1.9)	1.73 (0.18-16.60)	0.637
MAEs	9 (3.3)	5 (9.6)	3.59 (1.28-10.09)	0.015

Values are presented as n (%).

CI=confidence intervals; CV=cardiovascular; HR=hazard ratio; LAA=left atrial appendage; LAAC=left atrial appendage closure; MAEs=major adverse events; PDL=peri-device leak; TIA=transient ischemic attack.

Of note, the Bonferroni corrected critical p value was $0.05/3 \approx 0.017$.

Table S6. Relative risks of clinical endpoints for LAA patency with visible PDL.

Outcomes	Complete closure (n=271)	LAA patency with visible PDL (n=196)	HR (95% CI)	P value
Ischemic stroke/TIA	5 (1.8)	12 (6.1)	3.66 (1.29-10.42)	0.015
Major bleeding	2 (0.7)	3 (1.5)	2.38 (0.40-14.26)	0.344
CV death	3 (1.1)	2 (1.0)	1.53 (0.31-7.57)	0.604
All-cause death	3 (1.1)	8 (4.1)	3.96 (1.05-14.94)	0.042
MAEs	9 (3.3)	22 (11.2)	3.71 (1.71-8.07)	0.001

Values are presented as n (%).

CI=confidence intervals; CV=cardiovascular; HR=hazard ratio; LAA=left atrial appendage; MAEs=major adverse events; PDL=peri-device leak; TIA=transient ischemic attack.

Of note, the Bonferroni corrected critical p value was $0.05/3 \approx 0.017$.

Table S7. Comparison of event risks between LAA patency with and without visible PDL.

Outcomes	LAA patency with visible PDL (n=196)	LAA patency without visible PDL (n=52)	HR (95% CI)	P value
Ischemic stroke/TIA	12 (6.1)	3 (5.8)	1.21 (0.39-3.74)	0.747
Major bleeding	3 (1.5)	1 (1.9)	1.20 (0.12-11.51)	0.876
CV death	2 (1.0)	0 (0.0)	-	-
All-cause death	8 (4.1)	1 (1.9)	0.46 (0.06-3.66)	0.461
MAEs	22 (11.2)	5 (9.6)	0.99 (0.40-2.44)	0.982

Values are presented as n (%).

CI=confidence intervals; CV=cardiovascular; HR=hazard ratio; LAA=left atrial appendage; MAEs=major adverse events; PDL=peri-device leak; TIA=transient ischemic attack.

Of note, the Bonferroni corrected critical p value was $0.05/3 \approx 0.017$.

Table S8. Clinical outcomes of patients with different PDL severity.

No vs. Mild PDL	No PDL (n=323)	Mild PDL (n=67)	HR (95% CI)	P value
Ischemic stroke/TIA	9 (2.8)	2 (3.0)	1.33 (0.29-6.19)	0.714
Major bleeding	3 (0.9)	2 (3.0)	3.93 (0.65-23.54)	0.135
CV death	3 (0.9)	0 (0.0)	-	-
All-cause death	4 (1.2)	2 (3.0)	2.88 (0.53-15.73)	0.223
MAEs	15 (4.6)	6 (9.0)	2.37 (0.92-6.13)	0.074

No vs. Moderate PDL	No PDL (n=323)	Moderate PDL (n=120)	HR (95% CI)	P value
Ischemic stroke/TIA	9 (2.8)	8 (6.7)	2.41 (0.93-6.26)	0.071
Major bleeding	3 (0.9)	1 (0.8)	0.93 (0.10-8.97)	0.951
CV death	3 (0.9)	2 (1.7)	1.86 (0.31-11.17)	0.496
All-cause death	4 (1.2)	5 (4.2)	3.39 (0.91-12.65)	0.069
MAEs	15 (4.6)	14 (11.7)	2.53 (1.22-5.25)	0.013

No vs. Severe PDL	No PDL (n=323)	Severe PDL (n=9)	HR (95% CI)	P value
Ischemic stroke/TIA	9 (2.8)	2 (22.2)	10.97 (2.32-51.94)	0.003
Major bleeding	3 (0.9)	0 (0.0)	-	-
CV death	3 (0.9)	1 (11.1)	14.78 (1.53-142.49)	0.020
All-cause death	4 (1.2)	1 (11.1)	10.69 (1.19-95.88)	0.034
MAEs	15 (4.6)	2 (22.2)	6.23 (1.41-27.48)	0.016

Mild vs. Moderate PDL	Mild PDL (n=67)	Moderate PDL (n=120)	HR (95% CI)	P value
Ischemic stroke/TIA	2 (3.0)	8 (6.7)	1.73 (0.37-8.19)	0.490
Major bleeding	2 (3.0)	1 (0.8)	0.23 (0.02-2.52)	0.228
CV death	0 (0.0)	2 (1.7)	-	-
All-cause death	2 (3.0)	5 (4.2)	1.18 (0.23-6.11)	0.842
MAEs	6 (9.0)	14 (11.7)	1.05 (0.40-2.74)	0.924

Mild vs. Severe PDL	Mild PDL (n=67)	Severe PDL (n=9)	HR (95% CI)	P value
Ischemic stroke/TIA	2 (3.0)	2 (22.2)	6.54 (0.90-47.38)	0.063
Major bleeding	2 (3.0)	0 (0.0)	-	-
CV death	0 (0.0)	1 (11.1)	-	-
All-cause death	2 (3.0)	1 (11.1)	3.82 (0.35-42.16)	0.274
MAEs	6 (9.0)	2 (22.2)	2.84 (0.55-14.81)	0.215

Moderate vs. Severe PDL	Moderate PDL (n=120)	Severe PDL (n=9)	HR (95% CI)	P value
Ischemic stroke/TIA	8 (6.7)	2 (22.2)	4.51 (0.93-21.81)	0.061
Major bleeding	1 (0.8)	0 (0.0)	-	-
CV death	2 (1.7)	1 (11.1)	8.03 (0.73-88.93)	0.090
All-cause death	5 (4.2)	1 (11.1)	3.05 (0.36-26.17)	0.309
MAEs	14 (11.7)	2 (22.2)	2.43 (0.55-10.77)	0.244

No-to-Mild vs. Moderate PDL	No-to-Mild PDL (n=390)	Moderate PDL (n=120)	HR (95% CI)	P value
Ischemic stroke/TIA	11 (2.8)	8 (6.7)	2.30 (0.92-5.71)	0.074
Major bleeding	5 (1.3)	1 (0.8)	0.67 (0.08-5.72)	0.713
CV death	3 (0.8)	2 (1.7)	2.18 (0.36-13.09)	0.393
All-cause death	6 (1.5)	5 (4.2)	2.60 (0.79-8.53)	0.116
MAEs	21 (5.4)	14 (11.7)	2.11 (1.07-4.15)	0.031

No-to-Mild vs. Severe PDL	No-to-Mild PDL (n=390)	Severe PDL (n=9)	HR (95% CI)	P value
Ischemic stroke/TIA	11 (2.8)	2 (22.2)	9.78 (2.13-44.95)	0.003
Major bleeding	5 (1.3)	0 (0.0)	-	-
CV death	3 (0.8)	1 (11.1)	17.30 (1.79-166.80)	0.014
All-cause death	6 (1.5)	1 (11.1)	8.43 (1.01-70.13)	0.049
MAEs	21 (5.4)	2 (22.2)	5.26 (1.22-22.63)	0.026

Values are presented as n (%).

Of note, No PDL includes complete closure and LAA patency without visible PDL. Mild PDL indicates PDL >0-≤3mm; moderate PDL

indicates PDL $>3\text{--}\leq 5\text{mm}$; severe PDL indicates PDL $>5\text{mm}$; no-to-mild PDL indicates no PDL or PDL $>0\text{--}\leq 3\text{mm}$.

CI=confidence intervals; CV=cardiovascular; HR=hazard ratio; MAEs=major adverse events; PDL=peri-device leak; TIA=transient ischemic attack.

Table S9. Recurrent risks of atrial tachyarrhythmias among patients with complete closure, LAA patency with and without visible PDL groups.

Recurrence of atrial tachyarrhythmias	HR (95% CI)	P value
Complete closure vs. LAA patency with visible PDL	1.30 (0.89-1.90)	0.175
Complete closure vs. LAA patency without visible PDL	0.88 (0.45-1.71)	0.701
LAA patency with visible PDL vs. LAA patency without visible PDL	0.66 (0.33-1.30)	0.224

CI=confidence intervals; HR=hazard ratio; LAA=left atrial appendage; PDL=peri-device leak.

Table S10. Predictors of ischemic stroke or TIA in LAA patency with visible PDL.

Variables	Univariate		Multivariable	
	HR (95% CI)	P value	HR (95% CI)	P value
Age (years)	1.13 (1.04-1.24)	0.006	1.10 (1.01-1.21)	0.032
Male	1.69 (0.51-5.68)	0.393	1.22 (0.33-4.49)	0.769
Paroxysmal AF	0.39 (0.11-1.46)	0.162		
Hypertension	0.61 (0.18-2.04)	0.424		
Diabetes	1.00 (0.27-3.70)	0.994		
Coronary artery disease	0.58 (0.18-1.94)	0.378		
History of stroke/TIA	2.15 (0.68-6.49)	0.190		
Heart failure	1.29 (0.41-4.07)	0.662		
NT-proBNP (pg/mL)	1.00 (1.00-1.00)	0.129		
LAD (mm)	1.06 (0.95-1.17)	0.287		
LVEF (%)	1.01 (0.92-1.11)	0.866		
Device size (mm)	1.17 (0.99-1.40)	0.073	1.10 (0.09-1.25)	0.339
Post-LAAC antiplatelet therapy	0.32 (0.10-0.99)	0.049	0.27 (0.08-0.91)	0.034
Recurrence of atrial tachyarrhythmias	2.40 (0.76-7.56)	0.136		
Width of PDL (mm)	2.29 (1.56-3.38)	<0.001	1.94 (1.30-2.90)	0.001

AF=atrial fibrillation; CI=confidence intervals; HR=hazard ratio; LAA=left atrial appendage; LAAC=left atrial appendage closure; LAD=left atrial diameter; LVEF=left ventricular ejection fraction; PDL=peri-device leak; TIA=transient ischemic attack.

Table S11. Predictors of MAEs in LAA patency with visible PDL.

Variables	Univariate		Multivariable	
	HR (95% CI)	P value	HR (95% CI)	P value
Age (years)	1.14 (1.07-1.22)	<0.001	1.12 (1.05-1.20)	0.001
Male	1.02 (0.44-2.37)	0.973	0.73 (0.30-1.80)	0.497
Paroxysmal AF	0.55 (0.22-1.35)	0.190		
Hypertension	0.67 (0.27-1.63)	0.374		
Diabetes	0.87 (0.32-2.35)	0.776		
Coronary artery disease	0.79 (0.34-1.86)	0.591		
History of stroke/TIA	1.74 (0.73-4.14)	0.214		
Heart failure	3.15 (1.16-8.54)	0.024	2.53 (0.78-8.20)	0.122
NT-proBNP (pg/mL)	1.00 (1.00-1.00)	0.024	1.00 (1.00-1.00)	0.716
LAD (mm)	1.02 (0.94-1.10)	0.691		
LVEF (%)	1.02 (0.95-1.11)	0.540		
Device size (mm)	1.04 (0.93-1.17)	0.479		
Post-LAAC antiplatelet therapy	0.26 (0.11-0.61)	0.002	0.22 (0.08-0.55)	0.001
Recurrence of atrial tachyarrhythmias	1.37 (0.57-3.31)	0.486		
Width of PDL (mm)	1.87 (1.38-2.53)	<0.001	1.80 (1.34-2.41)	<0.001

AF=atrial fibrillation; CI=confidence intervals; HR=hazard ratio; LAA=left atrial appendage; LAAC=left atrial appendage closure; LAD=left atrial diameter; LVEF=left ventricular ejection fraction; MAEs=major adverse events; PDL=peri-device leak; TIA=transient ischemic attack.

Table S12. Predictors of MAEs in LAA patency without visible PDL.

Variables	Univariate		Multivariable	
	HR (95% CI)	P value	HR (95% CI)	P value
Age (years)	1.09 (0.98-1.21)	0.135	1.08 (0.97-1.20)	0.165
Male	0.49 (0.09-2.70)	0.411	0.30 (0.04-2.24)	0.240
Paroxysmal AF	0.63 (0.12-3.45)	0.593		
Hypertension	1.14 (0.13-9.84)	0.903		
Diabetes	0.44 (0.05-3.84)	0.458		
Coronary artery disease	3.44 (0.40-29.66)	0.261		
History of stroke/TIA	2.79 (0.53-14.60)	0.225		
Heart failure	0.99 (0.19-5.08)	0.989		
NT-proBNP (pg/mL)	1.00 (1.00-1.00)	0.455		
LAD (mm)	0.99 (0.85-1.15)	0.875		
LVEF (%)	1.23 (0.99-1.54)	0.062	1.17 (0.96-1.44)	0.128
Device size (mm)	0.90 (0.72-1.13)	0.347		
Post-LAAC antiplatelet therapy	0.12 (0.02-0.72)	0.021	0.15 (0.02-1.30)	0.085
Recurrence of atrial tachyarrhythmias	1.41 (0.25-8.08)	0.697		

AF=atrial fibrillation; CI=confidence intervals; HR=hazard ratio; LAA=left atrial appendage; LAAC=left atrial appendage closure; LAD=left atrial diameter; LVEF=left ventricular ejection fraction; MAEs=major adverse events; PDL=peri-device leak; TIA=transient ischemic attack.

Table S13. Predictors of the presence of LAA patency with visible PDL.

Variables	Univariate		Multivariable	
	OR (95% CI)	P value	OR (95% CI)	P value
Age (years)	1.02 (1.00-1.04)	0.115	1.02 (1.00-1.04)	0.119
Male	0.94 (0.65-1.36)	0.754	0.96 (0.67-1.39)	0.841
Paroxysmal AF	0.92 (0.64-1.33)	0.652		
Hypertension	1.23 (0.80-1.89)	0.354		
Diabetes	1.32 (0.86-2.00)	0.203		
Coronary artery disease	1.05 (0.73-1.52)	0.794		
History of stroke/TIA	1.04 (0.68-1.61)	0.854		
Heart failure	1.09 (0.75-1.57)	0.648		
NT-proBNP (pg/mL)	1.00 (1.00-1.00)	0.464		
LAD (mm)	1.00 (0.97-1.03)	0.924		
LVEF (%)	1.00 (0.97-1.02)	0.831		
Device size (mm)	1.02 (0.97-1.07)	0.568		

AF=atrial fibrillation; CI=confidence intervals; LAA=left atrial appendage; LAD=left atrial diameter; LVEF=left ventricular ejection fraction; OR=odds ratio; PDL=peri-device leak; TIA=transient ischemic attack.

Table S14. Predictors of the presence of LAA patency without visible PDL.

Variables	Univariate		Multivariable	
	OR (95% CI)	P value	OR (95% CI)	P value
Age	1.04 (1.00-1.08)	0.070	1.03 (0.99-1.07)	0.127
Male	1.01 (0.56-1.84)	0.964	1.02 (0.55-1.87)	0.954
Paroxysmal AF	1.07 (0.59-1.93)	0.834		
Hypertension	1.49 (0.71-3.13)	0.291		
Diabetes	1.24 (0.63-2.44)	0.529		
Coronary artery disease	1.80 (0.99-3.27)	0.056	1.66 (0.90-3.07)	0.106
History of stroke/TIA	1.60 (0.84-3.05)	0.151		
Heart failure	0.71 (0.39-1.29)	0.257		
NT-proBNP (pg/mL)	1.00 (1.00-1.00)	0.837		
LAD (mm)	1.03 (0.98-1.08)	0.249		
LVEF (%)	0.98 (0.95-1.02)	0.289		
Device size (mm)	1.07 (0.99-1.16)	0.109		

AF=atrial fibrillation; CI=confidence intervals; LAA=left atrial appendage; LAD=left atrial diameter; LVEF=left ventricular ejection fraction; OR=odds ratio; PDL=peri-device leak; TIA=transient ischemic attack.