

**Supplementary Table 1.** Standardized differences of clinically relevant variables between the treatment groups before and after propensity-score matching

	Overall cohort		High-risk PFO cohort	
	ASD before matching	ASD after matching	ASD before matching	ASD after matching
Age (yr)	0.51	0.06	0.53	0.07
Male sex	0.03	0.07	0.02	0.06
Body mass index	0.07	0.03	0.02	0.01
Hypertension	0.19	0.03	0.21	0.05
Diabetes	0.16	0.00	0.11	0.00
Hyperlipidemia	0.11	0.05	0.19	0.04
Chronic kidney disease	0.14	0.13	0.17	0.13
Current smoker	0.12	0.04	0.04	0.02
Prior stroke	0.05	0.04	0.00	0.04
Prior TIA	0.11	0.04	0.08	0.00
Migraine	0.23	0.04	0.19	0.05
Prior DVT or PTE	0.19	0.13	0.21	0.13
History of cancer	0.07	0.12	0.06	0.11
Cortical infarction	0.22	0.02	0.07	0.02
High-risk PFO	0.86	0.00		

An ASD >0.2 was considered as a serious imbalance.

PFO, patent foramen ovale; ASD, absolute standardized difference; TIA, transient ischemic attack; DVT, deep vein thrombosis; PTE, pulmonary thromboembolism.

**Supplementary Table 2.** Patient numbers who underwent PFO device closure and antithrombotic medical treatment only at each participating center

Centers	Antithrombotic therapy only (n=276)	PFO closure (n=161)
D01	0	3
D02	16	19
D03	13	6
D04	0	23
D05	80	76
D06	104	8
D07	30	2
D08	33	16
D09	0	5
D10	0	3

PFO, patent foramen ovale.