

## Supplemental materials

Table S1: Univariate analysis by Cox proportional hazard model for stroke within 6 months after

LVAD implantation

Variables	HR	95% CI	<i>P</i> value
Age	1.132	1.002 – 1.278	0.05
Duct-sep distance/LVDd ratio $\geq 0.217$ at one month after LVAD implantation	8.865	0.9803-80.17	0.05
SBP at one month after LVAD implantation	1.000	0.9112-1.098	>0.99

CI: confidence interval, HR: hazard ratio, LVAD: left ventricular assist device, LVDd: left

ventricular end-diastolic diameter, SBP: systolic blood pressure

Table S2: Evaluation of modified rank scale and mean duct-sep distance to LVDd ratio

Modified Rank Scale	n=5	Mean duct-sep distance/LVDd ratio	<i>P</i> value
1	4	0.22	0.40
2	0	0	
3	0	0	
4	1	0.24	
5	0	0	
6	0	0	

LVDd: left ventricular end-diastolic diameter

Table S3: Rotational speed and pump power of LVAD

	Stroke within 6 months (n=5)	Stroke-Free (n=10)	P value
Rotation-speed, rpm at just post operation	1795 ± 37	1873 ± 125	0.10
Pump power, watt at just post operation	3.6 ± 0.30	4.2 ± 0.67	0.12
Rotation-speed, rpm at 1 month	1800 ± 141	1806 ± 98	0.76
Pump power, watt at 1 month	5.0 ± 1.6	5.5 ± 1.5	0.50
Rotation-speed, rpm at 3 months	1775 ± 162	1777 ± 127	0.71
Pump power, watt at 3 months	4.5 ± 1.7	5.0 ± 2.6	>0.99
Rotation-speed, rpm at 6 months	1763 ± 165	1785 ± 120	0.90
Pump power, watt at 6 months	4.2 ± 1.2	4.5 ± 1.4	>0.99

LVAD: left ventricular assist device, rpm: rotations per minute

Figure S1: Trend of PT-INR value during 6 months after LVAD implantation

Note: *p* values by repeated-measures ANOVA for INR level were as follows;

Time: *p*=0.72, Group: *p*=0.45, and Time × Group: *p*=0.08

LVAD: left ventricular assist devices, PT/INR: prothrombin time-international normalized ratio

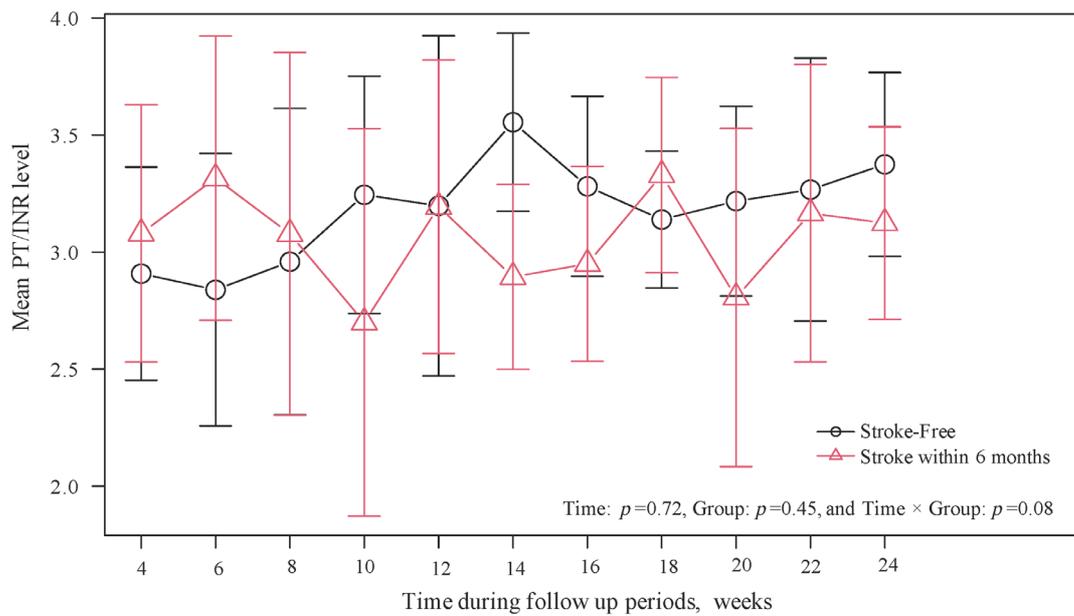


Figure S2: Our speculation

Note: Ratio of distance between inflow duct and left ventricular (LV) septum to LV diastolic diameter was related to stroke. The position of the inflow cannula could influence stroke incidence; surgical and post-operative management should consider this factor.

