

Table S1 Peri-operative characteristics of patients combined with moderate aortic valve disease

Characteristic	NT(N=121)	AVP or AVR (N=222)	P value
In-hospital mortality	0	3(1.4)	0.50
In-hospital reoperation	3 (2.5)	7 (3.2)	0.99
New-onset stroke	3 (2.5)	4 (1.8)	0.98
ICU stay (h)	20 (17-22)	21 (17-26)	0.06
Hospital stay (d)	12 (10-15)	13 (11-15)	0.06
Mechanical ventilation (h)	20 (16-22)	19 (16-22)	0.94
Post mitral stenosis			0.16
None or Trace	116 (95.9)	215 (96.8)	
Mild	4 (3.3)	2 (0.9)	
Moderate	0	2 (0.9)	
Missing	1 (0.8)	3 (1.4)	
Post mitral regurgitation			0.44
None or Trace	85 (70.2)	170 (76.6)	
Mild	26 (21.5)	38 (17.1)	
Moderate	6 (5.0)	9 (4.1)	
Severe	3 (2.5)	2 (0.9)	
Missing	1 (0.8)	3 (1.4)	
Post aortic stenosis			0.43
None or Mild	113 (93.4)	213 (95.9)	
Moderate	6 (5.0)	6 (2.7)	
Missing	2 (1.7)	3 (1.4)	
Post aortic regurgitation			<0.001
None or Mild	64 (52.9)	203 (91.4)	
Moderate	55 (45.5)	15 (6.8)	
Severe	1 (0.8)	0	
Missing	1 (0.8)	4 (1.8)	

Values are median (P₂₅ -P₇₅) or n (%).NT, no treatment; AVP, aortic valvuloplasty; AVR, aortic valve replacement; ICU, intensive care unit.

Table S2 Perioperative factors to predict the aortic valve surgery.

Risk for events	Univariable			Multivariable		
	OR	95% CI	P value	OR	95% CI	P value
NYHA grade III-IV	1.99	(1.22-3.22)	0.006	1.63	(0.94-2.85)	0.08
Aortic stenosis	2.57	(1.89-3.57)	0.039	1.96	(1.38-2.83)	<0.001
Aortic valve calcification	3.53	(2.22-5.66)	<0.001	2.02	(1.17-3.50)	0.01
LVEF	1.04	(1.01-1.08)	0.02	1.03	(1.00-1.07)	0.08
Mitral valve repair	0.30	(0.18-0.48)	<0.001	0.38	(0.22-0.64)	<0.001

OR, odds ratio; CI, confidential interval; NYHA, New York heart association classification of cardiac function; LVEF, left ventricular ejection fraction.

Table S3 Follow-up characteristics of patients combined with moderate aortic valve disease

Characteristic	NT(N=121)	AVP or AVR (N=222)	P value
Follow-up mortality	2 (1.8)	8 (4.0)	0.49
Follow-up cardiac reoperation	2 (1.8)	6 (3.0)	0.81
Follow-up stroke	3 (3.4)	4 (3.0)	>0.99
Follow-up duration (months)	46.07 (24.13-67.00)	36.50 (12.25-64.12)	0.03
More-than-mild mitral valve dysfunction	11 (10.7)	18 (9.6)	0.92
Mitral stenosis			0.37
None or Trace	95 (78.5)	173 (77.9)	
Mild	4 (3.3)	6 (2.7)	
Moderate	3 (2.5)	2 (0.9)	
Severe	1 (0.8)	0	
Missing	18 (14.9)	41 (18.5)	
Mitral regurgitation			0.057
None or Trace	67 (55.4)	133 (59.9)	
Mild	28 (23.1)	31 (14.0)	
Moderate	5 (4.1)	15 (6.8)	
Severe	3 (2.5)	1 (0.5)	
Missing	18 (14.9)	42 (18.9)	
More-than-mild aortic valve dysfunction	29 (27.9)	15 (8.0)	<0.001
Aortic stenosis			0.11
None or Mild	99 (81.8)	178 (80.2)	
Moderate	3 (2.5)	1 (0.5)	
Severe	1 (0.8)	0	
Missing	18 (14.9)	43 (19.4)	
Aortic regurgitation			<0.001
None or Mild	74 (61.2)	166 (74.8)	
Moderate	26 (21.5)	12 (5.4)	
Severe	3 (2.5)	1 (0.5)	
Missing	18 (14.9)	43 (19.4)	
More-than-mild tricuspid valve dysfunction	6 (5.8)	5 (2.7)	0.31
Tricuspid regurgitation			0.37
None or Trace	70 (57.9)	113 (50.9)	
Mild	28 (23.1)	61 (27.5)	
Moderate	5 (4.1)	5 (2.3)	
Missing	18 (14.9)	43 (19.4)	

Values are median (P₂₅-P₇₅) or n (%). PS, propensity matching; NT, no treatment; AVP, aortic valvuloplasty; AVR, aortic valve replacement.

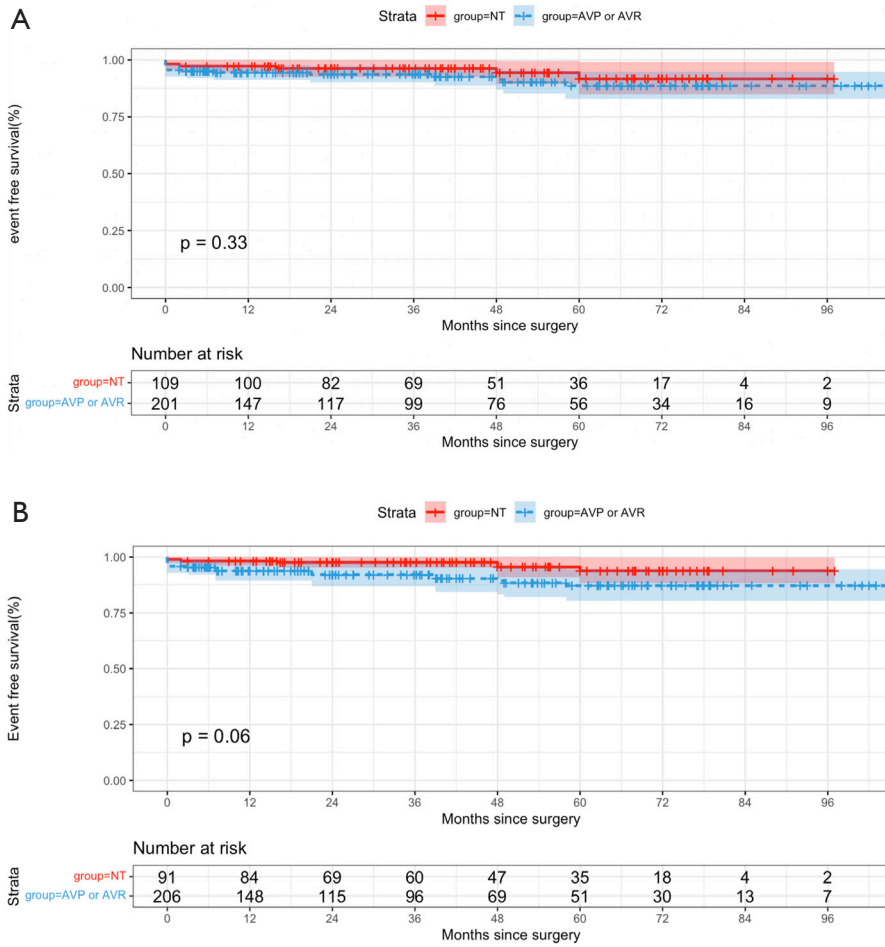


Figure S1 Kaplan-Meier curves for event-free survival of patients with moderate aortic valve dysfunction categorized by different surgical groups before (A) and after weighted (B). NT, no treatment; AVP, aortic valvuloplasty; AVR, aortic valve replacement.