

주최·주관 대한심장혈관흉부외과학회

2024 대한심장혈관흉부외과학회 제56차 추계학술대회

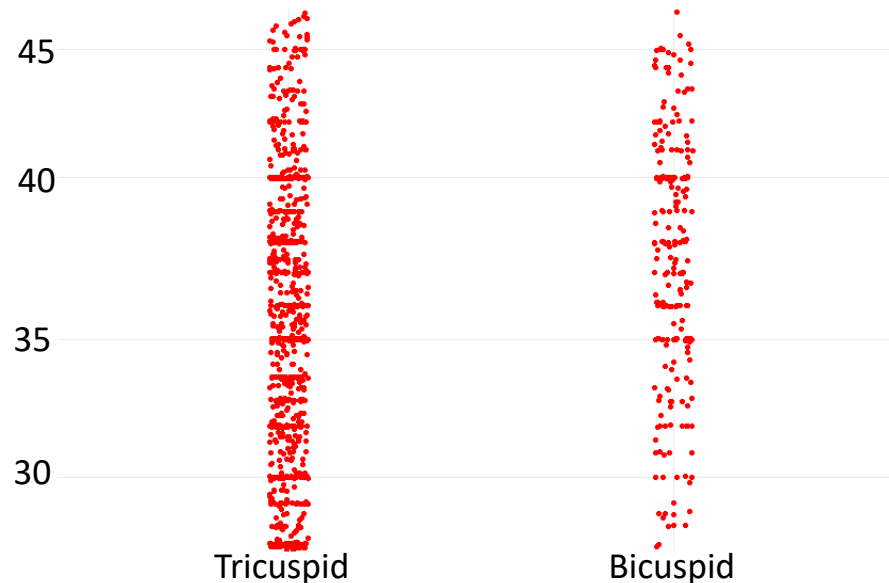
2024. 10. 31 (Thu) - 11. 01 (Fri) 여수 엑스포 컨벤션센터



The fate of remaining ascending aorta after aortic valve replacement: A 7-year follow-up

- The natural progression of ascending aorta dilatation following aortic valve replacement (AVR) are still topics of ongoing debate.
- We evaluated the fate of remaining aorta after AVR and identified the risk factors of future dilatation of the remaining aorta.

- 1027 patients who underwent surgical AVR (2000.01~2018.05)
- Single center, retrospective study
 - Median f/u duration: 88.4 ± 56.7 months
- Cox proportional hazards regression
- Primary outcomes
 - Late aortic event after AVR (aortic re-intervention)



Variables	Total (n = 1027)
Age (years)	61.0 \pm 14.0
Female, n (%)	473 (46.1)
Bicuspid	238 (23.2)
Smoking	173 (20.3)
HTN	321 (37.1)
DM	153 (17.7)
Dyslipidemia	76 (8.8)
BMI $\geq 25\text{kg/m}^2$	235 (27.0)
CKD	331 (38.6)
Coronary artery disease	182 (20.9)
CPB time (mins)	200.2 \pm 104.5
ACC time (mins)	130.8 \pm 52.8
Isolated AVR	464 (45.2)
Concomitant operation	
Mitral valve	470 (38.4)
Tricuspid valve	295 (16.3)
CABG	115 (13.1)
ASD	43 (4.9)

Late aortic event after AVR

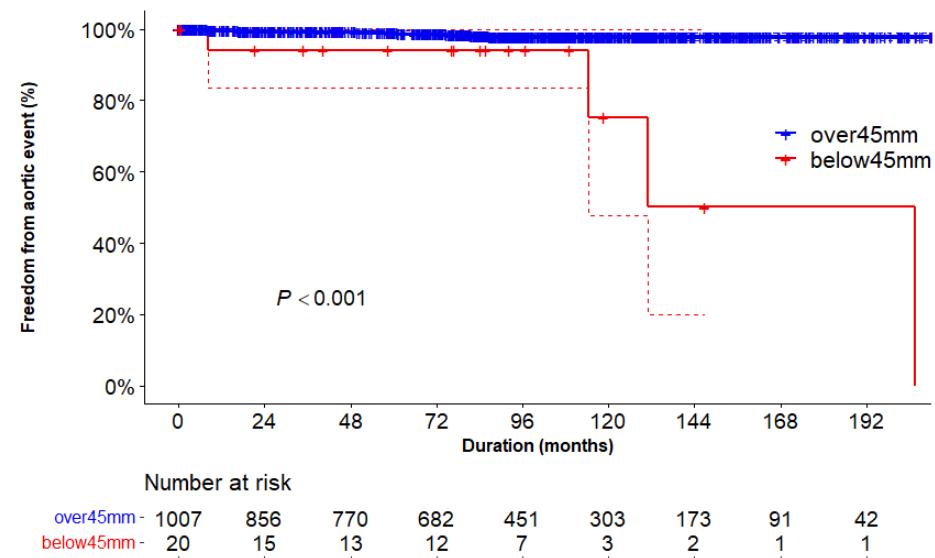
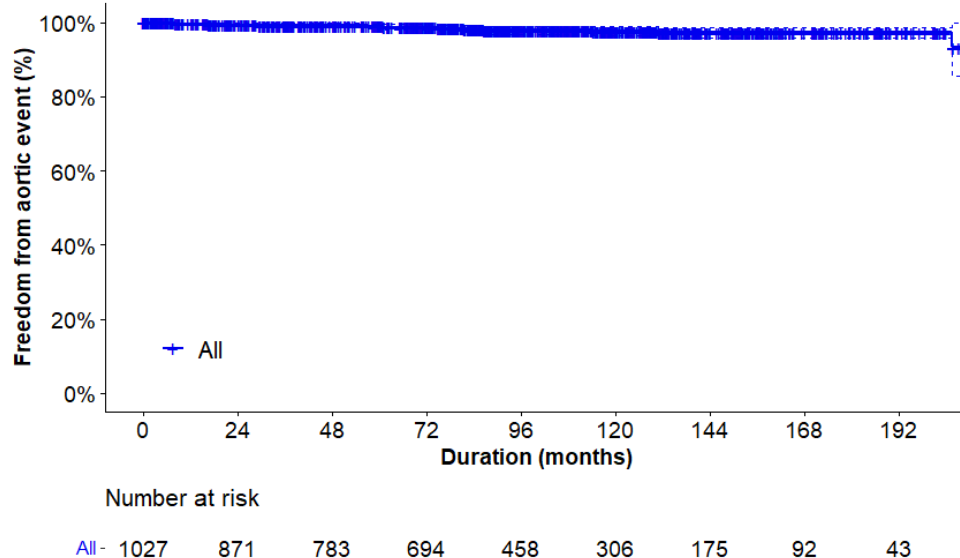
	Initial aorta size \leq 45mm N=1007	Initial aorta size $>$ 45mm N=20	P
Aortic event (-)	992 (98.5%)	16 (80.0%)	<0.001
Aortic event (+)	15 (1.5%)	4 (20.0%)	
	Tricuspid N=789	Bicuspid N=238	P
Aortic event (-)	774 (98.1%)	234 (98.3%)	>0.999
Aortic event (+)	15 (1.9%)	4 (1.7%)	

**Late Aortic event =
1.9% (19/1027 patients)**

- Mean months to aortic surgery: 62.6 ± 50.4
- Aortic procedure: ascending aorta replacement

Risk factors associated with late aortic event

Variable	Multivariable analysis	
	Odds Ratio (95% CI)	p Value
Initial aortic diameter >45mm	27.344 (7.435, 100.571)	<0.001
Bicuspid AV	2.062 (0.586, 7.255)	0.260
Coronary artery disease	2.139 (0.529, 8.655)	0.286
Age	0.984 (0.940, 1.031)	0.510



- Initial aortic diameter >45mm was a risk factor for late aortic event after AVR regardless of AV cusps.
- In patients with bicuspid and tricuspid AV, concomitant aortic replacement should be considered if the **initial aortic diameter exceeds 45mm.**