

2023 대한심장혈관흉부외과학회

제55차 추계학술대회 & APELSO 2023

2023. 11. 02 (Thu) - 11. 04 (Sat), 그랜드 인터컨티넨탈 파르나스 서울

The Fate of Untreated Well-Functioning Bicuspid Aortic Valve After Isolated Repair of Aortopathy

공지사항

- 소속기관이나 저자명이 드러나지 않도록 해주세요.
- 제목 슬라이드 포함 최대 6장, Font size 20 이상
- PPT 파일 작성 후 PDF로 전환해서 접수(필수)



- Consensus has not been reached on whether to replace or preserve a well-functioning bicuspid aortic valve (BAV) in patients undergoing replacement for the ascending phenotype of BAV aortopathy.
- The aim of this study is to assess the mid-term evolution of untreated well-functioning BAV after isolated aortic replacement.

- Retrospective Study

From January 2010 to May 2022

Aortic surgery in BAV patients (n=83)

- Exclusion
 - AVR (n=21)
 - Bentall (n=15)
 - No f/u TTE (n=3)
 - preOp severe AS (n=1)
 - Descending aortic surgery (n=1)

Untreated Well-functioning BAV (n=42)

- Serial TTE reviewed

Results

Variables	BAV patients (n=42)
Male sex (n)	35 (83.3%)
Age (year)	53.7 ± 11.0
BMI (Kg/m ²)	24.9 ± 2.9
Etiology (n)	37 (88.1%)
Aneurysm	5 (11.9%)
Aortic Dissection	
Proximal anastomosis (n)	
Aortic root reimplantation	12 (28.6%)
Supracoronary	30 (71.4%)
Distal anastomosis (n)	
Aortic arch replacement	40 (95.2%)
Hemiarch replacement	2 (4.8%)
Graft size (n)	
24mm	2 (4.8%)
26mm	11 (26.2%)
28mm	20 (47.6%)
30mm	6 (14.3%)
32mm	2 (4.8%)
34mm	1 (2.4%)
BAV type (n)	
0	21(50.0%)
1	21 (50.0%)
Follow up duration (month)	42.5 [20.0;75.0]

Variables	PreOp TTE (n=42)	FUP TTE (n=42)	p-value
AS (n)			0.82
0	29 (69.0%)	28 (66.7%)	
1	10 (23.8%)	11 (26.2%)	
2	3 (7.1%)	3 (7.1%)	
AR (n)			0.02
0	35 (83.3%)	29 (69.0%)	
1	7 (16.7%)	11 (26.2%)	
2	0 (0%)	1 (2.4%)	
3	0 (0%)	1 (2.4%)	
MSPG (mmHg)	10.0 [6.9;15.3]	8.1 [4.9;12.7]	0.12
PSPG (mmHg)	18.8 [13.3;27.5]	14.4 [9.9;20.8]	0.006
AVA (cm2)	2.1 ± 0.5	2.0 [1.7;2.4]	0.99
Mortality (n)	0 (0%)		-
AVR (n)	0 (0%)		-

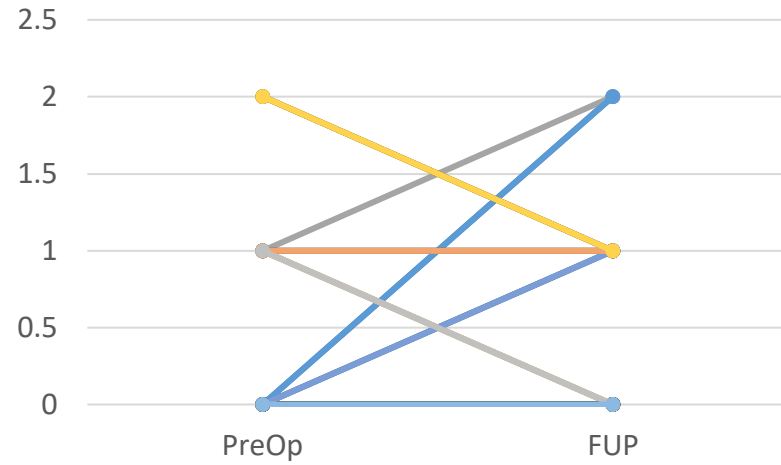
BAV: Bicuspid aortic valve; TTE: Transthoracic echocardiography; AS: Aortic stenosis;

AR: Aortic regurgitation; MSPG: Mean systolic pressure gradient; PSPG: Peak

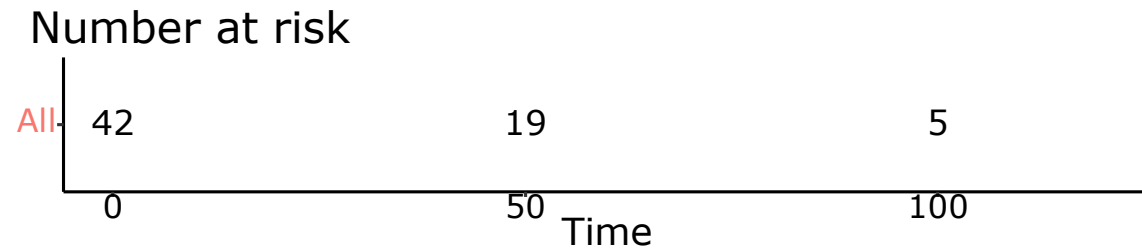
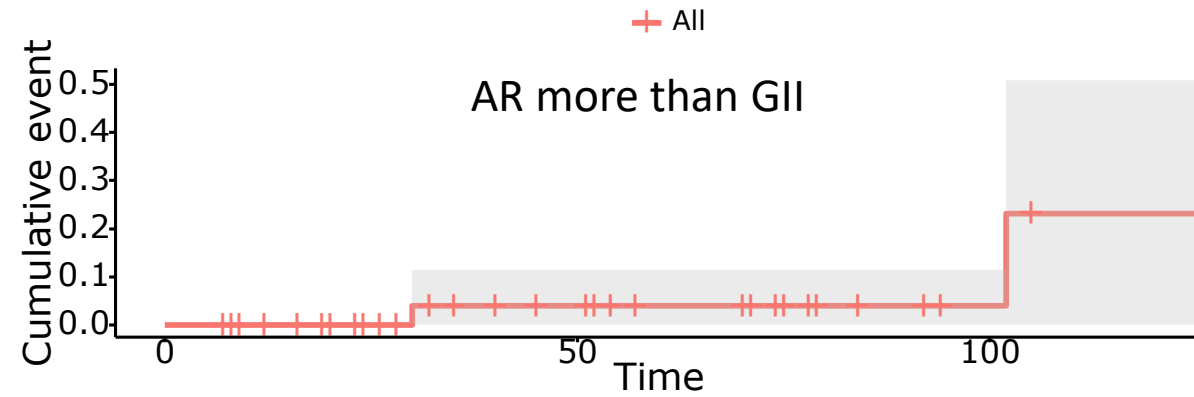
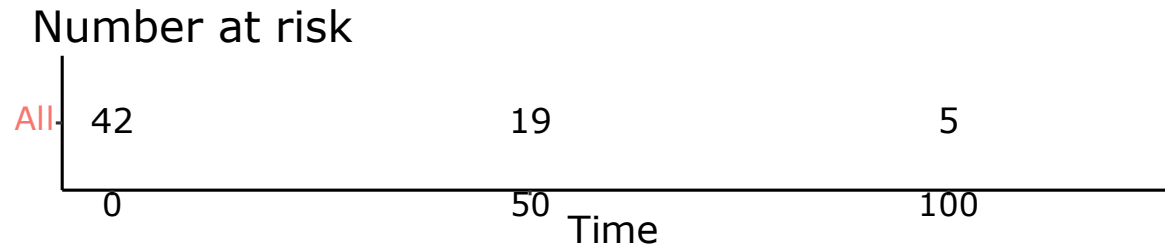
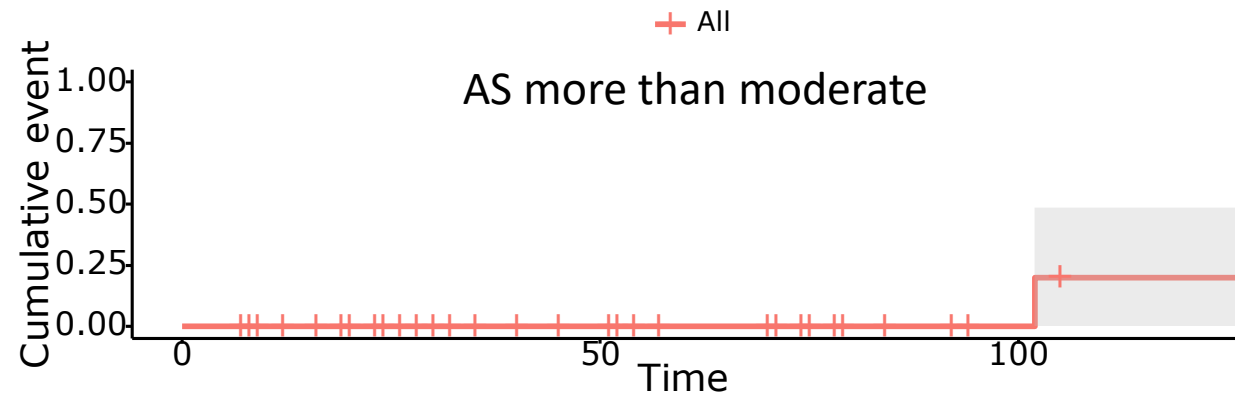
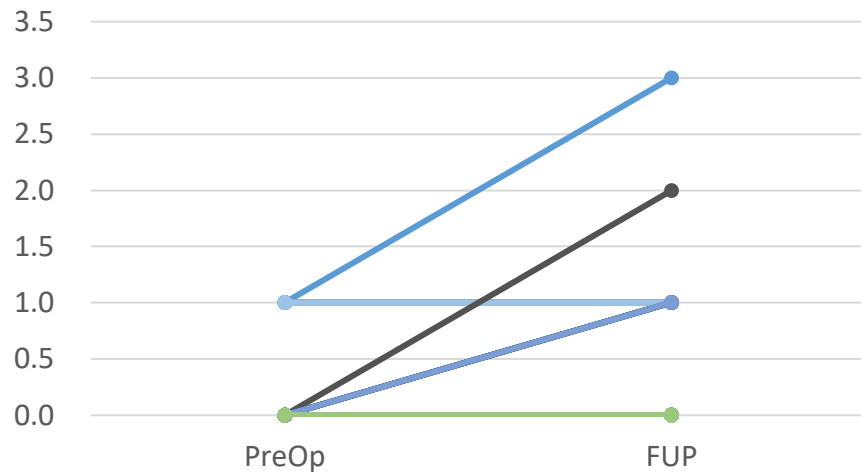
systolic pressure gradient; AVA: Aortic valve area; AVR: Aortic valve replacement.

Results

Aortic Stenosis



Aortic Regurgitation



- Mild to moderate stenosis of a BAV did not significantly deteriorate after isolated aorta replacement.
- When progression of the BAV disease occurs, the evolution seems to be more commonly towards a higher degree of regurgitation.
- Despite this, there's no need of reoperation due to severe BAV disease in this study.
- Controversial setting (Small sample size, heterogenous surgical extent and short follow up period), although larger series and longer follow ups are needed.