

Aortic annular size	Overall	<23mm	23–26mm	≥26mm	P value
	n=244	n=128	n=81	n=35	
Baseline characteristics					
Age, mean±SD, years	77.56±8.80	78.82±7.04	76.51±10.08	75.37±10.75	0.050
Male, no. (%)	134 (54.92)	45 (35.16)	59 (72.84)	30 (85.71)	<0.001
Body mass index, kg/cm ²	24.18±4.90	23.99±4.83	24.71±5.21	23.60±4.40	0.445
Weight, mean±SD, kg	59.95±13.26	56.82±12.15	62.83±14.13	64.73±12.45	<0.001
Height, mean±SD, cm	157.52±9.26	154.02±8.24	159.77±8.39	165.26±8.66	<0.001
Body surface area, mean±SD, m ²	1.61±0.20	1.55±0.18	1.66±0.20	1.71±0.19	<0.001
Smoker, no. (%)	38 (15.57)	14 (10.94)	17 (20.99)	7 (20.00)	0.110
Diabetes mellitus, no. (%)	92 (37.70)	45 (35.16)	32 (39.51)	15 (42.86)	0.650
Hypertension, no. (%)	203 (83.20)	111 (86.72)	64 (79.01)	28 (80.00)	0.300
Dyslipidaemia, no. (%)	179 (73.36)	96 (75.00)	62 (76.54)	21 (60.00)	0.150
Cerebrovascular disease, no. (%)	34 (13.93)	24 (18.75)	6 (7.41)	4 (11.43)	0.063
Chronic liver disease, no. (%)	14 (5.74)	8 (6.25)	3 (3.70)	3 (8.57)	0.548
Peripheral vascular disease, no. (%)	20 (8.23)	12 (9.45)	5 (6.17)	3 (8.57)	0.702
Obstructive lung disease, no. (%)	27 (11.07)	15 (11.72)	8 (9.88)	4 (11.43)	0.916
Coronary artery disease, no. (%)	174 (71.31)	93 (72.66)	59 (72.84)	22 (62.86)	0.490
Previous percutaneous coronary intervention, no. (%)	113 (46.31)	65 (50.78)	38 (46.91)	10 (28.57)	0.065
Previous coronary artery bypass graft, no. (%)	37 (15.23)	15 (11.81)	15 (18.52)	7 (20.00)	0.294
Atrial fibrillation, no. (%)	47 (19.26)	24 (18.75)	15 (18.52)	8 (22.86)	0.843
Estimated glomerular filtration rate, mean±SD	47.63±26.70	49.69±26.30	42.93±25.81	51.04±29.45	0.151
NYHA class III–IV, no. (%)	99 (40.57)	47 (36.72)	40 (49.38)	12 (34.29)	0.137
STS score	6.22±6.08	5.96±4.35	6.16±4.90	7.33±11.63	0.493
EuroScore II	5.57±6.94	5.09±5.35	5.75±6.55	6.97±11.69	0.369
Computed tomography measurements					
Aortic calcium score, mean±SD	2542.87±1698.76	2179.78±1281.59	2786.05±2076.32	3221.67±1740.49	0.007
Maximum diameter, mean±SD, mm	25.58±2.80	23.58±1.47	26.77±1.54	30.12±1.62	<0.001
Minimum diameter, mean±SD, mm	20.52±2.23	19.07±1.31	21.41±1.55	23.76±1.69	<0.001
Mean diameter, mean±SD, mm	23.03±2.31	21.29±1.18	24.08±0.89	26.94±1.13	<0.001
Area, mean±SD, mm ²	411.31±86.80	347.60±46.23	447.64±30.92	560.25±48.52	<0.001
Perimeter, mean±SD, mm	72.78±8.47	67.45±3.64	75.66±8.11	85.62±3.54	<0.001
Sinus of Valsalva average, mean±SD, mm	30.29±3.58	28.33±2.88	31.32±2.42	35.09±2.43	<0.001
Sintotubular junction, mean±SD, mm	26.04±3.52	24.50±3.10	26.93±2.78	29.57±3.28	<0.001
Sintotubular junction height, mean±SD, mm	19.69±2.76	18.40±2.04	20.41±2.36	22.74±3.00	<0.001
Ascending aorta diameter, mean±SD, mm	32.74±4.75	31.70±4.28	33.37±4.15	35.05±6.46	<0.001
Left main height, mean±SD, mm	13.83±7.70	13.21±10.24	14.04±2.97	15.63±2.74	0.249

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Right coronary height, mean±SD, mm	16.39±2.53	15.26±2.17	17.03±2.04	19.03±2.31	<0.001
Porcelain aorta, no. (%)	36 (14.81)	18 (14.17)	16 (19.75)	2 (5.71)	0.142
Baseline echocardiographic parameters					
AvMPG, mean±SD, mmHg	48.31±16.30	47.64±16.14	49.71±17.32	47.52±14.58	0.648
AVA, mean±SD, cm ²	0.72±0.21	0.70±0.21	0.72±0.18	0.78±0.24	0.102
iAVA, mean±SD, cm ² /m ²	0.45±0.13	0.45±0.14	0.43±0.11	0.47±0.14	0.367
LVEF, mean±SD, %	53.43±13.87	57.16±11.24	49.80±14.49	48.31±17.26	<0.001
Aortic valve type					<0.001
Bicuspid, no. (%)	31 (13.36)	6 (5.08)	15 (18.75)	10 (29.41)	
Tricuspid, no. (%)	201 (86.64)	112 (94.92)	65 (81.25)	24 (70.59)	
Pre-procedure AR (≥moderate), no. (%)	73 (30.67)	42 (33.60)	22 (27.85)	9 (26.47)	0.582
Procedural details					
Contrast volume, mean±SD, mL	141.98±66.54	139.17±71.47	138.05±56.79	160.26±67.35	0.220
Procedural time, mean±SD, minutes	113.15±57.23	116.16±59.28	111.14±59.38	105.92±43.13	0.701
Valve type					0.017
BEV, no. (%)	81 (34.76)	33 (26.83)	31 (40.79)	17 (50.00)	
SEV, no. (%)	152 (65.24)	90 (73.17)	45 (59.21)	17 (50.00)	

AR: aortic regurgitation; AvMPG: aortic valve mean pressure gradient; AVA: aortic valve area; BEV: balloon-expandable valve; iAVA: indexed aortic valve area; LVEF: left ventricle ejection fraction; NYHA: New York Heart Association; STS: Society of Thoracic Surgeons; SD: standard deviation; SEV: self-expanding valve