

Table S1. Baseline demographic and clinical characteristics, combined surgery

	Full sternotomy	Minimally invasive surgery	p
n	76	40	
Age, median (IQR)	68 (57, 74)	65 (55, 72)	0.160
Female, n (%)	55 (72.4)	22 (55.0)	0.067
Body mass index, median (IQR)	25.6 (23.4, 28.7)	24.7 (22.6, 26.8)	0.063
Hypertension, n (%)	48 (63.2)	19 (47.5)	0.117
Diabetes, n (%)	15 (19.7)	4 (10.0)	0.201
Smoke, n (%)	26 (34.2)	16 (40.0)	0.549
AF, n (%)	6 (7.9)	3 (7.5)	1.000
NYHA $\geq$ 3, n (%)	15 (19.7)	7 (17.5)	1.000
LVEF, median (IQR)	60 (56, 65)	60 (55, 64)	0.126
Stroke, n (%)	2 (2.6)	0 (0.0)	0.544
TIA, n (%)	2 (2.6)	1 (2.5)	1.000
Creatinin, median (IQR)	0.86 (0.74, 0.96)	0.80 (0.74, 1.00)	0.716
COPD, n (%)	4 (5.3)	3 (7.5)	0.691
Previous cardiac surgery, n (%)	5 (6.6)	2 (5.0)	1.000
EuroSCORE log, median (IQR)	3.98 (2.49, 6.59)	3.62 (2.08, 4.69)	0.125
EuroSCORE 2, median (IQR)	1.41 (1.01, 2.45)	1.22 (0.91, 1.61)	0.072
Dim1, cm, median (IQR)	3.00 (2.35, 4.50)	3.30 (2.50, 4.45)	0.497
Dim2, cm, median (IQR)	2.60 (2.00, 3.50)	2.50 (1.90, 3.25)	0.674
Area, cm <sup>2</sup> , median (IQR)	6.68 (3.69, 11.78)	6.28 (3.66, 12.32)	0.950
Emergency, n (%)	32 (42.1)	19 (47.5)	0.694

AF, Atrial Fibrillation; COPD, Chronic Obstructive Pulmonary Disease; Dim, dimension; EuroSCORE, The European System for Cardiac Operative Risk Evaluation; IQR, interquartile range; LVEF, left ventricle ejection fraction; NYHA, New York Heart Association; TIA, transient ischemic attack.

Table S2. Intraoperative and post operative characteristics, combined surgery

	Full sternotomy	Minimally invasive surgery	p
n	76	40	
CABG, n (%)	4 (5.3)	1 (2.5)	0.658
MVR/MVr, n (%)	9 (11.8)	3 (7.5)	0.540
AVR/AVr, n (%)	2 (2.6)	0 (0.0)	0.544
CBP minutes, median (IQR)	53 (38, 78)	67 (52, 84)	<b>0.005</b>
Clamping minutes, median (IQR)	40 (27, 62)	43 (35, 60)	0.188
Blood transfusion, n (%)	36 (47.4)	14 (35.0)	0.239
Blood bags, mean (SD)	2.2 (7.9)	0.8 (1.4)	0.258
MI, n (%)	0 (0.0)	1 (2.5)	0.345
Cardiac tamponade, n (%)	1 (1.3)	0 (0.0)	1.000
Stroke, n (%)	0 (0.0)	2 (5.0)	0.117
TIA, n (%)	1 (1.3)	0 (0.0)	1.000
Bleeding requiring chest reopening, n (%)	3 (3.9)	0 (0.0)	0.550
Acute kidney injury, n (%)	4 (5.3)	1 (2.5)	0.658
Renal replacement therapy, n (%)	1 (1.3)	1 (2.5)	1.000
Permanent pmk implantation, n (%)	4 (5.3)	0 (0.0)	0.297
New onset atrial fibrillation, n (%)	24 (31.6)	4 (10.0)	<b>0.012</b>
Respiratory failure, n (%)	2 (2.6)	3 (7.5)	0.338

Wound complications, n (%)	1 (1.3)	0 (0.0)	1.000
Sepsis, n (%)	2 (2.6)	0 (0.0)	0.544
Death, n (%)	1 (1.3)	0 (0.0)	1.000
Ventilation hours, median (IQR)	6.0 (4.8, 10.0)	5.00 (3.0, 7.3)	0.063
Bleeding, median (IQR)	200 (150, 400)	225 (150, 350)	0.625
Days ICU, median (IQR)	2 (1, 2)	2 (1, 2)	0.679
Days post surgery, median (IQR)	7 (6, 10)	7 (6, 7)	0.163

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AVR/r, aortic valve replacement/repair; CABG coronary artery bypass graft; CPB, cardiopulmonary bypass; ICU, intensive Care Unit; IQR, interquartile range; MI, Myocardial infarction; MVR/r, mitral valve replacement/repair; TIA, transient ischemic attack.