

Supplementary Table 1 Gastrointestinal symptom scores in preoperative patients.

Gastrointestinal symptom	PB Group (n=53)	PC Group (n=52)	t/z/ χ^2	P-Value
Abdominal pain	0.00(0.00-0.00)	0.00(0.00-0.00)	-0.019	0.985
Bloating	0.00(0.00-0.00)	0.00(0.00-0.75)	-0.697	0.486
Diarrhea	0.00(0.00-0.00)	0.00(0.00-0.00)	-0.331	0.740
Constipation	0.00(0.00-1.00)	0.00(0.00-1.00)	-0.122	0.903
Nausea	0.00(0.00-0.00)	0.00(0.00-0.00)	-0.317	0.751
Vomiting	0.00(0.00-0.00)	0.00(0.00-0.00)	-0.028	0.978
Total	0.00(0.00-2.00)	1.00(0.00-2.00)	-0.444	0.657

Data are presented as median (interquartile range).

Supplementary Table 2 Preoperative and intraoperative variables of included patients.

Variables	PB Group (n=53)	PC Group (n=52)	t/Z/ χ^2	P-Value
NT-proBNP, ng/L	586.00(230.00-2262.50)	357.50(67.90-1486.75)	-1.727	0.084
WBC count, $\times 10^9/L$	5.76 \pm 2.28	6.02 \pm 1.58	-0.696	0.488
RBC count, $\times 10^{12}/L$	4.28 \pm 0.54	4.35 \pm 0.49	-0.657	0.513
Hemoglobin, g/L	128.30 \pm 17.75	131.46 \pm 13.16	-1.034	0.303
Platelet count, $\times 10^9/L$	171.00(146.00-205.50)	193.00(153.50-247.50)	-1.147	0.251
Neutrophil count, $\times 10^9/L$	3.23(2.58-4.74)	3.59(2.83-4.75)	-0.891	0.373
Lymphocyte counts, $\times 10^9/L$	1.46 \pm 0.50	1.53 \pm 0.52	-0.704	0.483
Monocyte count, $\times 10^9/L$	0.42(0.34-0.57)	0.42(0.31-0.57)	-0.019	0.985
AST, U/L	24.40(18.49-33.70)	23.65(18.40-31.85)	-0.077	0.939
ALT, U/L	22.20(12.95-31.65)	19.25(13.60-30.68)	-0.022	0.982
Cr, $\mu\text{mol}/L$	77.20(63.50-88.80)	74.15(60.75-94.65)	-0.067	0.946
LVEF, %	62.00(53.50-67.00)	62.00(58.25-67.00)	-0.167	0.867
Left atrial diameter, mm	46.00(41.00-51.50)	43.50(38.00-49.75)	-1.113	0.266
Right atrial diameter, mm	36.00(31.00-42.50)	36.50(33.25-41.00)	-0.424	0.672
Ascending aortic diameter, mm	31.00(29.00-34.50)	32.00(28.00-38.00)	-0.880	0.379
Aortic cross-clamp time, min	57.00(51.50-80.00)	71.00(57.25-88.50)	-1.481	0.139
Surgical methods, n (%)			5.764	0.330
MVR+TVP	28 (52.8%)	20 (38.5%)		
MVR+TVP+AVR	9 (17.0%)	10 (19.2%)		
AVR	10 (18.9%)	13 (25.0%)		
MVR	2 (3.8%)	7 (13.5%)		
MVP	3 (5.7%)	1 (1.9%)		
MVR+AVR	1 (1.9%)	1 (1.9)		
Intraoperative bleeding volume, ml	600.00 (500.00-800.00)	600.00 (500.00-800.00)	-0.483	0.629

Data are presented as n (%), mean \pm standard deviation or median (interquartile range). Abbreviations: NT-proBNP, N-terminal pro-B-type natriuretic peptide; WBC, white blood cell; RBC, red blood cell; AST, aspartate aminotransferase; ALT, alanine aminotransferase; Cr, creatinine; LVEF, left ventricular ejection fraction; MVR, mitral valve replacement; MVP, mitral valve repair; TVP, tricuspid valve plasty; AVR, aortic valve replacement.

Supplementary Table 3 Gastrointestinal symptom score and Time to recovery of bowel function after surgery.

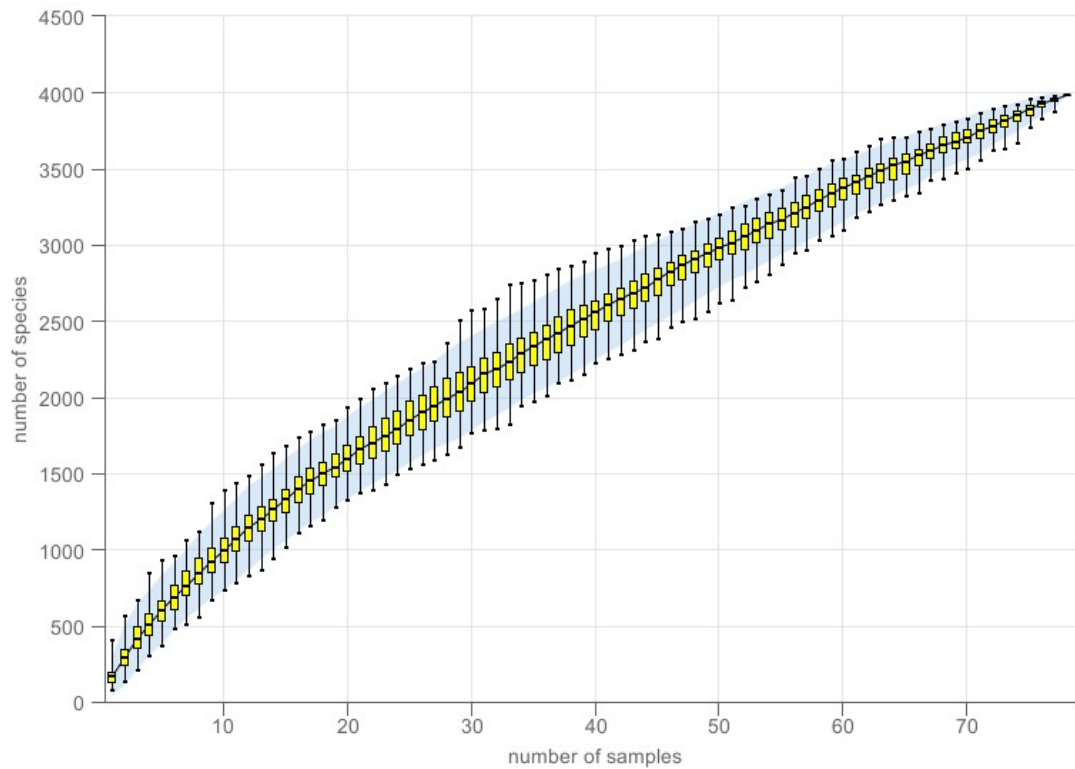
Gastrointestinal symptom	PB Group (n=53)	PC Group (n=52)	t/Z/χ²	P-Value
Abdominal pain	0.00 (0.00-0.00)	1.00 (0.00-1.00)	-3.445	0.001
Bloating	1.00 (0.00-1.00)	1.00 (0.00-2.00)	-2.358	0.018
Diarrhea	0.00 (0.00-0.00)	0.00 (0.00-0.00)	-1.043	0.297
Constipation	1.00 (0.00-1.50)	1.00 (0.00-2.00)	-2.285	0.022
Nausea	0.00 (0.00-1.00)	0.00 (0.00-1.75)	-0.892	0.372
Vomiting	0.00 (0.00-1.00)	0.00 (0.00-1.00)	-0.690	0.490
Total	2.00 (0.50-4.00)	4.50 (1.25-7.00)	-2.859	0.004
Time to recovery of bowel function, d	4.00 (3.00-5.00)	4.50 (4.00-5.00)	-2.382	0.017
Antiemetics use, n (%)	21(39.6)	21(40.4)	0.006	0.936
Antidiarrheal use, n (%)	4(7.5)	5(9.6)	0.001	0.976
cathartics use, n (%)	14(26.4)	11(21.6)	0.334	0.563

Data are presented as n (%), median (interquartile range).

Supplementary Table 4 Postoperative adverse events in included patients.

Variables	PB Group (n=53)	PC Group (n=52)	t/z/ χ^2	P-Value
Hemorrhage, n (%)	1(1.9)	1(1.9)	0.000	1.000
Repeated thoracotomy, n (%)	1(1.9)	1(1.9)	0.000	1.000
Renal insufficiency, n (%)	10(18.9)	8(15.4)	0.224	0.636
Hepatic insufficiency, n (%)	6(11.3)	3(5.8)	0.445	0.505
Fever, n (%)	17(32.1)	22(42.3)	1.177	0.278

Data are presented as n (%)



Supplementary Fig. 1 The species accumulation curves.