

and 62.07 ± 3.45 mm in Group B ($p = 0.147$). After 1 month, LA diameter decreased to 55.60 ± 1.24 mm in Group A and 49.00 ± 2.73 mm in Group B ($p < 0.001$). At 3 months, the mean LA diameter further decreased to 52.33 ± 1.11 mm in Group A and 43.20 ± 1.52 mm in Group B ($p < 0.001$). Ejection fraction (EF) increased over time, with preoperative EF of $53.80 \pm 2.31\%$ in Group A and $52.67 \pm 1.59\%$ in Group B. At 1 month, EF was $54.53 \pm 1.39\%$ in Group A and $58.40 \pm 1.96\%$ in Group B, and at 3 months, EF was $55.80 \pm 1.52\%$ and $63.87 \pm 2.56\%$, respectively ($p < 0.001$ for Group B) (Table 3). The mean aortic cross-clamp time was 28.4 ± 4.9 min in Group A and 32.1 ± 5.6 min in Group B ($p = 0.084$). Cardiopulmonary bypass time was 51.7 ± 8.8 min and 57.1 ± 6.9 min for Groups A and B, respectively ($p = 0.072$). Postoperative bleeding was

slightly higher in Group B (411.3 ± 42.4 ml) compared to Group A (385.3 ± 39.9 ml), but the difference was not statistically significant ($p = 0.095$) (Table 4). The mean ICU stay was 5.25 ± 0.46 days in Group A and 5.02 ± 0.49 days in Group B ($p = 0.195$). The mean hospital stay was 8.93 ± 1.22 days in Group A and 8.52 ± 1.51 days in Group B ($p = 0.420$), indicating no significant differences in immediate postoperative recovery between groups (Table 5). Atrial fibrillation was the most common postoperative complication, occurring in 73.3% of Group A and 33.3% of Group B ($p = 0.028$). Other complications, including bleeding, superficial wound infection, renal or respiratory complications, and transient ischemic attack, were rare and comparable between groups. There were no in-hospital deaths in either group (Table 6).

Table 1. Baseline Characteristics of the Study Participants (n = 30)

Variable		Group A (n=15) n (%) / Mean ± SD	Group B (n=15) n (%) / Mean ± SD	p value
Age (years)	Mean ± SD	36.3 ± 9.96	37.8 ± 11.89	0.705
Sex	Male	6 (40.0%)	4 (26.7%)	0.439
	Female	9 (60.0%)	11 (73.3%)	
BMI (kg/m ²)	Mean ± SD	19.96 ± 1.37	20.01 ± 1.49	0.924
NYHA Class	I	2 (13.3%)	2 (13.3%)	0.924
	II	6 (40.0%)	5 (33.3%)	
	III	7 (46.7%)	8 (53.3%)	
	IV	0 (0.0%)	0 (0.0%)	
Etiology	Rheumatic	13 (86.7%)	12 (80.0%)	0.624
	Non-rheumatic	2 (13.3%)	3 (20.0%)	
Comorbidities	Atrial fibrillation	12 (80.0%)	11 (73.3%)	0.666
	Diabetes mellitus	2 (13.3%)	1 (6.7%)	0.309
	Hypertension	1 (6.7%)	2 (13.3%)	0.309
	COPD/Asthma	2 (13.3%)	1 (6.7%)	0.543
	TIA/thromboembolism	0 (0.0%)	1 (6.7%)	0.309
Indication of Surgery	MS	4 (26.7%)	4 (26.7%)	0.550
	MR	3 (20.0%)	1 (6.7%)	
	MS + MR	5 (33.3%)	4 (26.7%)	
	Re-stenosis	3 (20.0%)	6 (40.0%)	