## Supplementary

### Table S1 Changes in echocardiographic data at preoperative period, early postoperative period and last follow-up (57.8±53.3 months)

| Variables             | BMVR group (n=241) | PMVR group (n=68) |
|-----------------------|--------------------|-------------------|
|                       | Preoperative       | Early postoperative | Last follow-up       | Preoperative       | Early postoperative | Last follow-up       |
| LVESD (mm)            | 34.6±7.7           | 33.0±7.4           | 31.6±7.5             | 36.5±9.7           | 33.9±7.6           | 32.7±7.9             |
| LVEDD (mm)            | 53.5±8.5           | 48.3±6.7           | 47.9±7.3             | 54.2±9.3           | 48.3±7.8           | 49.0±8.7             |
| LVEF (%)              | 58.1±9.2           | 52.6±10.9          | 55.0±11.1            | 53.8±11.1          | 48.1±11.9          | 52.9±12.3            |
| LA dimension (mm)     | 59.2±13.3          | 50.3±10.0          | 52.4±11.7            | 56.9±11.5          | 52.6±11.7          | 54.7±12.6            |
| PASP (mmHg)           | 51.0±16.4          | 39.8±10.8          | 44.1±15.9            | 50.8±18.8          | 37.5±11.8          | 46.2±17.4            |
| MVMPG (mmHg)          | –                  | 4.1±1.7            | 5.3±3.4              | –                  | 4.7±1.6            | 5.9±2.9              |

EDD, end-diastolic dimension; EF, ejection fraction; ESD, end-systolic dimension; LA, left atrium; LV, left ventricle; MVMPG, mitral valve mean pressure gradient; PASP, pulmonary artery systolic pressure.

### Table S2 Early clinical outcomes

| Variables                      | BMVR group (n=241) | PMVR group (n=68) | P-Value |
|--------------------------------|--------------------|-------------------|---------|
| Early mortality, n (%)         | 14 (5.8)           | 6 (8.8)           | 0.40    |
| Complications, n (%)           |                    |                   |         |
| Low cardiac output syndrome    | 30 (12.4)          | 13 (19.1)         | 0.16    |
| Respiratory complication       | 35 (14.5)          | 9 (13.2)          | 0.79    |
| Acute kidney injury            | 28 (11.6)          | 6 (8.8)           | 0.52    |
| Reoperation due to bleeding    | 14 (5.8)           | 9 (13.2)          | 0.040   |
| Stroke                         | 16 (6.6)           | 3 (4.4)           | 0.78    |
| Mediastinitis                  | 3 (1.2)            | 2 (2.9)           | 0.30    |