

## 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 period | Early postoperative | Last follow-up | Preoperative period | 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    |