**A PROSPECTIVE COHORT STUDY OF RIGHT VENTRICULAR NORMALIZATION AFTER PULMONARY VALVE REPLACEMENT IN ASYMPTOMATIC PATIENTS WITH MODERATE OR GREATER PULMONARY REGURGITATION AFTER REPAIRED TETRALOGY OF FALLOT**

**F. He**, S. Li, Z. Feng

Fuwai Hospital, Beijing, China

**Objective:**This study aimed to investigate whether PVR in asymptomatic rTOF patient could reduce the RV size to normal volume (defined as RV end-diastolic volume index(EDVI)≤114ml/m2) and improve the RV function (defined as RV ejection fraction (EF)≥48%).

**Method:**Between June 2014 and April 2018, 41 asymptomatic rTOF patients with moderate or severe pulmonary valve regurgitation underwent PVR and consented to be enrolled in this prospective study. Cardiac magnetic resonance, cardiopulmonary exercise testing, transthoracic echocardiography, electrocardiogram and chest X-ray were examined after recruitment and 6-month after PVR.

**Results:**RV EDVI (153.30 ± 34.19 ml/m2VS 104.05 ± 29.04 ml/m2), RV end-systolic volume index(RV ESVI)(100.10 ± 28.81 ml/m2VS 64.71 ± 25.24 ml/m2), corrected RVEF (20.71 ± 5.43 % VS 38.07 ± 9.62 %) and left ventricular ejection fraction (48.14 ± 7.90 % VS 54.22 ± 6.75 %) were significantly changed after PVR (p<0.05). Thirty-one of 41 patients had normal RV size, and 7 of whom had normal RV EF (≥48%). Logistic regression analysis identified preoperative RV ESVI was associated with normalization of RV size. Receiver operating characteristic analysis revealed a cutoff value of 155 mL/m2and 120 mL/m2of preoperative RV EDVI and RV ESVI for normalization of postoperative RV EDVI, respectively.

**Conclusion:**Pulmonary valve replacement in asymptomatic patients with repaired Tetralogy of Fallot was effective in reducing right ventricular size and preserving right ventricular function, which should be considered to be performed in these patients.