Abstract: **P3651**  
**Outcomes of right ventricular outflow tract reconstruction in children: comparison between bovine jugular vein graft and expanded polytetrafluoroethylene graft**  

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**Background:** Various types of conduits are available for right ventricular outflow tract reconstruction (RVOTR). The bovine jugular vein graft (BJVG) and expanded polytetrafluoroethylene graft (ePTFEG) have been described as an alternative to the homograft for RVOTR. Purpose- This study summarized the results to evaluate the single-center operation of RVOTR using BJVG and ePTFEG.  

**Methods:** The valve functions of 27 patients under 20 years old who underwent primary RVOTR with BJVG and 26 patients with ePTFEG at our university hospital between 2013 and 2018 were retrospectively investigated. The valve conditions were assessed using echocardiography and cardiac catheterization.  

**Results:** The median age at the time of operation was 1.8 years old (range, 6 days to 7.8 years old) with BJVG and 2.2 years old (range, 8 months to 9.1 years old) with ePTFEG. The median follow-up time was 3.4 years (range, 2 months to 5.2 years) with BJVG and 2.1 years (range, 1 month to 5.1 years) with ePTFEG. The peak RVOT gradient of BJVG was lower than ePTFEG (10.6±7.7 mmHg versus 18.1±16.2 mmHg, P=0.035). There were no differences in branch pulmonary stenosis defined as peak gradient up to 36mmHg (40.7% versus 50.0%, P=0.50) and pulmonary regurgitation graded worse than moderate (18.5% versus 11.5%, P=0.48) with BJVG and ePTFEG, respectively. Aneurysmal dilatation of the conduit was seen 22.2% with BJVG but none of patients with ePTFEG (P=0.01). All of patients with aneurysmal dilated BJVG had branch pulmonary stenosis. There were no differences in catheter intervention for branch pulmonary stenosis (22.2% versus 30.8%, P=0.48) and conduit replacement (11.1% versus 7.7%, log rank P=0.67) with BJVG and ePTFEG, respectively. There were no deaths during the follow-up period in both groups.  

**Conclusions:** The outcomes of RVOTR with BJVG and ePTFEG were clinically satisfactory. Aneurysmal dilatation was seen with BJVG and branch pulmonary stenosis was the risk factor for aneurysmal dilatation.