**OP10.09 Tricuspid valve size in fetuses with pulmonary atresia with intact ventricular septum/severe pulmonary stenosis is a strong predictor of the postnatal outcome**

**Objective**
The purpose of this study was to determine the morphologic and physiological predictors of the postnatal surgical pathway, the presence or absence ventriculocoronary connections (VCC), in fetuses with pulmonary atresia with intact ventricular septum (PAIVS) and severe pulmonary stenosis (SPS).

**Materials**
We identified 16 fetuses, with a fetal diagnosis of PAIVS and SPS from 2002 to 2015.

**Methods**
Using the z-scores of fetal cardiac measurements, we calculated the size of tricuspid valve (TV), tricuspid valve/mitral valve (TV/MV) ratio, pulmonary valve/aortic valve (PV/AV) ratio and the size of pulmonary valve (PV) to facilitate the prediction of univentricular (UV) or not-UV circulation. We also assessed the presence or absence of VCC.

**Results**
The UV group included 13 fetuses, and the not-UV group included 3 fetuses. In the UV vs. not-UV group, the TV Z-score was -3.1SD to -10.8SD (median -7.7SD) vs. -3.4SD to -2.9SD (median -3.2SD) (p=0.01), the TV/MV ratio was 0.26 to 0.63 (median 0.34) vs. 0.55 to 0.67 (median 0.57) (p=0.03), the PV/AV ratio was 0.28 to 0.90 (median 0.43) vs. 0.82 to 0.98 (median 0.91) (p=0.01), and the PV Z-score was -11.0SD to 0.27SD (median -8.7SD) vs. -2.3SD to -1.2SD (median -1.6SD) (p=0.06). A cut-off value of -5SD for TV was highly predictive of UV circulation, with a sensitivity of 92% and a specificity of 100%. A cut-off value of -5.5SD for TV was highly predictive of VCC during fetal life, with a sensitivity of 100% and a specificity of 58%.

**Discussion**
We consider that PV atresia and high pressure RV because of hypo RV/TV affected coronary circulation and were caused VCC.

**Conclusion**
Tricuspid valve size in fetuses affected by PAIVS and SPS was a strong prenatal predictor of UV circulation and VCC.