

## MP4-11

### Outcomes of antenatal and postnatal diagnosis of TAPVC with unbalanced ventricles: 13 years' experience at a single cardiac surgical centre.

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**Aim:** To review the diagnosis, management and outcomes of patients with antenatal and postnatal diagnosis of total anomalous pulmonary venous connection (TAPVC) associated with unbalanced ventricles.

**Methods:** Retrospective review over 13 years from cardiac and fetal cardiac database at a single tertiary cardiac centre.

**Results:** We reviewed 30 cases of TAPVC with associated complex congenital cardiac lesion between 2003 and October 2016. Of these, 19/30 cases were associated with unbalanced ventricles. 16 were diagnosed antenatally with a complex congenital cardiac lesion (9 with antenatal suspicion of anomalous pulmonary veins) and 3 were diagnosed postnatally. See Table 1 for outcomes.

Table 1: Outcome of Antenatal and Postnatal diagnoses

<b>Outcome</b>	<b>Antenatal (16)</b>	<b>Postnatal ( 3)</b>
<i>TOP</i>	3	-
<i>Born Alive</i>	13	3
<i>Compassionate Care</i>	5 (1 alive; 4 dead)	3 (1 alive; 2 dead)
<i>Active Management</i>	8 (2 alive; 6 dead)	0

Amongst the live born antenatal patients who elected to proceed with surgery (8/13), only 2/8 are alive (currently aged 18 months and 7 years). The remaining patients who had undergone surgery (6/8) – had only survived between 6 days to 44 weeks (median days of survival 22 days). In the group who elected for compassionate care, 1 of 5 from the antenatal group is still alive at 6 months, and 1 of 3 from the postnatal groups is still alive at 7 years. We also reviewed the isomeric status and types of TAPVC, the breakdown are shown in tables 2 & 3.

Table 2: Isomeric status of live born

<b>Isomerism</b>	<b>Antenatal (13)</b>	<b>Postnatal(3)</b>
<i>Non-isomeric</i>	2	1
<i>Right</i>	9	2
<i>Unknown</i>	2	0

Table 3: Types of TAPVC of live born

<b>Types</b>	<b>Antenatal (13)</b>	<b>Postnatal (3)</b>
<i>Supracardiac</i>	2	1
<i>Cardiac</i>	1	0
<i>Infracardiac</i>	7	1
<i>Mixed</i>	3	1

**Conclusions:** With our data we have found that the outcome of TAPVC with unbalanced ventricles is poor, even with patients who are non-isomeric. The antenatal diagnosis of TAPVC with complex anatomy remains challenging, however should be suspected and evaluated further in the context of complex cardiac diagnosis.