

## **Conotruncal Anomalies in The Fetus: Echocardiographic and Clinical Evaluation and Prognosis of 72 Patients**

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**Objective:** Majority of the conotruncal anomalies (CTA) are accurately diagnosed by fetal echocardiography. In this study, we aimed to evaluate the results of prenatally diagnosed patients with CTA.

**Methods:** The medical and fetal echocardiographic records of pregnant women admitted to our pediatric cardiology department between January 2011 and January 2016 were reviewed.

**Results:** A total of 4690 fetal echocardiographic investigations revealed 72 (1.5%) fetuses with CTA. The gestation weeks at the time of diagnosis ranged between 14 to 36 weeks with a mean of  $25.1 \pm 6.8$  weeks. Twenty-eight (38%) of the fetuses with CTA had tetralogy of Fallot (TOF) which included absent pulmonary valve in 3 (4.5%), pulmonary atresia in 2 (3%) and complete atrioventricular septal defect in 3 (4.5%). Twenty-three (32%) of the patients had double outlet right ventricle, 10 (13.8%) had transposition of great arteries, 3 (4%) had truncus arteriosus and 8 (11%) had posterior malalignment type ventricular septal defect and aortic arch anomalies. Postnatally, transthoracic echocardiography was performed in 51 fetuses and results were consonant with prenatal diagnosis, except 2 cases. 62% of the newborn babies were male. Chromosome analysis and karyotyping revealed trisomy 18 in 1, and Di George syndrome in 2 of the babies. Extracardiac anomalies accompanied in 23 (32%) fetuses. Complete AV block was detected in a baby with TOF and complete atrioventricular septal defect. Seven fetuses died prenatally (3 termination of pregnancy, 4 intrauterine death) and 20 infants died postnatally. Total rate of mortality was 37.5%.

**Conclusion:** Prenatal diagnosis of cases with conotruncal anomalies is established accurately with increasing experience by fetal echocardiography. However, posterior malalignment type ventricular septal defects and aortic arch anomalies are not easy to detect correctly in fetal period. As cases with CTA have associated extracardiac and chromosomal anomalies, they generally do not have good prognosis.