

A case of common arterial trunk with right aortic arch

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Objective

We demonstrate this rare case report of in utero diagnosis of common arterial trunk with right aortic arch.

Methods

We present this case report in the light of current literature.

Results

Clinical Presentation: A 42-year-old woman, G1P0, was referred to the Fetal Medicine Department at 20 weeks, due to a suspected cardiac abnormality on the routine mid-trimester scan. This was an IVF pregnancy, with a low early pregnancy risk for aneuploidies and a nuchal translucency of 1.7 mm. A major form of congenital heart defect was confirmed, whilst no further anatomic abnormalities were identified. The patient was referred for fetal echocardiography at Evelina London, St Thomas' Hospital. The examination demonstrated a single outlet vessel arising astride a large ventricular septal defect, giving rise to the pulmonary arteries before continuing to form the ascending aorta and aortic arch (Common Arterial Trunk Type I). Furthermore, the aortic arch was found right sided with a mirror image branching pattern. The couple were counselled concerning the prognosis and the available surgical treatment options and opted for termination of the pregnancy at 21 weeks and 4 days. A fetal karyotyping was performed from the products of conception extracting DNA from uncultured umbilical cord. The MLPA analysis indicated a normal male with no evidence of any imbalance. **Background:** Common arterial trunk with right aortic arch is a very rare condition. Truncus arteriosus is defined as a congenital cyanotic heart defect often detected in the neonatal period. It represents the 0.7 % of the overall congenital heart abnormalities. TA is described as a single trunk supplying both the pulmonary and systematic circulation and is classified in 4 types according to Praagh and Edwards. In the literature some heart abnormalities are linked to TA such as double arch or interruption of the aortic arch. The association of this heart defect with the presence of a right aortic arch is observed as a very rare finding.

Conclusion

Anomalies of the aortic arch should be suspected in cases of patients diagnosed with common arterial trunk. Thus, right-sided aortic arch, double aortic arch and interruption of the aortic arch should be assessed carefully in fetuses with truncus arteriosus.