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A case of univentricular heart

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Objective

Univentricular heart or single ventricle heart is a rare and complex congenital heart disease (CHD), with the best outcome reported for newborns with dominant left ventricle. We report a case of a fetal diagnosed at 23 weeks 3 days gestation at the second trimester morphology scan and the successful management of a parturient. Univentricular heart is discussed in detail and the maternal and fetal outcome in pregnant women with CHD is reviewed.

Methods

The incidence of CHD has been estimated at 6 to 12 per 1000 live births Advances in medical and surgical treatments over the past decades have led to more than 85% of these newborn surviving to adulthood. Half of these patients are women; the majority of them of childbearing age. We report a case of a successful pregnancy in a 35-yr-old woman caring a fetal with univentricular heart with dominant left ventricle.

Results

A 35-year-old primigravida with 23 weeks and 3 days of gestation was diagnosed at the second anatomy scan with the fetal having DIV with dominant left ventricle. She was referred to the center in fetal medicine and cardiology surgery nearby in order to have better care during the third trimester of gestation and to plan the delivery to happen in a center with better resources that included cardiac neonatal surgery.

Conclusion

In conclusion, the outcome of fetuses with DIV is generally good in the absence of assotiated rhythm abnormalities. A recent study reported the outcome of 115 newborns with prenatal diagnosis of univentricular heart and found a total survival rate of 90.4 %, with the best outcome reported for newborns with dominant. When fetal CHD is found, intrapartum care should be coordinated between obstetric, neonatal, and cardiology services, with specialty teams, including cardiac intensive care, interventional cardiology, electrophysiology, and cardiac surgery, as appropriate. There is evidence that overall neonatal condition and surgical outcomes are improved by delivery in close proximity to a cardiac center with the resources needed to provide medical and surgical interventions for infants with specific major cardiac defects. Appropriate planning of delivery location should therefore be made for patients in whom there is a prenatal diagnosis of CHD at risk for postnatal compromise.