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# An unusual case of large isolated fetal pericardial effusion

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## Case Report

A 34-year-old G2P1 was referred for a fetal anomaly at 20+4 weeks gestation. Her ultrasound showed a normally grown fetus with large echogenic bilateral pericardial effusions (left 11.9mm, right 9.6mm) (Fig 1). A globular right ventricle with outpouching and a 1.8 mm communication between the right ventricle and the pericardial effusion was noted. The heart rhythm, umbilical, and MCA Dopplers were normal. The cervical skin was thickened at 6.6 mm. Maternal serology for intrauterine infections and red cell antibodies was negative. Chromosomal microarray showed a normal female complement.

The couple decided to continue the pregnancy with expectant surveillance without pericardiocentesis. At 24 weeks hyperechoic material ? thrombus was protruding into the ventricular outpouching, but the cardiac function remained stable. At 29 weeks gestation, the pericardial effusions started to reduce in size and completely resolved by 31 weeks (Fig 2).

The fetal growth remained normal, and the baby was delivered by elective Caesarean Section at 38 weeks with an APGAR score of 7,9 weighing 2.74 kg. Baby required CPAP for transient tachypnoea of the newborn for 6 hrs and was discharged well on Day 5.
The postnatal echo showed a ventricular septum aneurysm, prominent muscular trabeculation of the right ventricle, and a moderate PDA.

Fig 1 Fetal Ultrasound at 20 weeks gestation

Fig 2 Fetal Ultrasound at 31 weeks gestation

Legend: Sp = Spine

## Discussion

Fetal pericardial effusions are associated with a variety of aetiologies and abnormalities including structural cardiac malformations, chromosomal abnormalities, fetal infection, intrauterine growth restriction and nonimmune hydrops. If large, they generally indicate a poor prognosis for the fetus. Several case series have reported on isolated fetal pericardial effusion with generally good outcome; however, the effusions in these series were small. Large pericardial effusions can lead to fetal lung hypoplasia and cardiac failure resulting in poor neonatal outcome.

Pericardial effusions with hyperechoic content can be indicative of haemopericardium. This is usually associated with fetal interventions, generalized diathesis, pericardial teratomas or rupture of cardiac aneurysms or diverticula. These often lead to cardiac tamponade with subsequent bradycardia and cardiac decompensation.

There is no clear consensus on the optimal management of these cases. The presented case demonstrates that even large isolated pericardial effusions diagnosed in the mid-trimester can resolve without any evident ill effects. Expectant management may be a valid option besides fetal intervention or termination of pregnancy.