Absent Ductus Venosus (ADV)

Ductus venosus – connects the intra-abdominal umbilical vein to the IVC at its inlet to the heart. Allows oxygenated blood from placenta to bypass liver.

Incidence of ADV is unknown in the general population.

Case report with 22 fetuses (Thomas et al.)
- 8 had isolated ADV
- 14 had associated structural abnormalities, chromosomal abnormalities, effusions/hydrops
- 10 fetuses w/ intrahepatic drainage, 12 w/ extrahepatic drainage
- Isolated ADV survival is 100%, independent of umbilical vein drainage (UVD)
- If associated with effusion/hydrops, survival is 50%

Case report with 23 fetuses (Berg et al.)
- Focuses more on UVD and outcomes
- 19 fetuses with intrahepatic drainage, 4 with extrahepatic
- 12 fetuses with hydrops, equally distributed among different types of UVD
- There is a significant association with extrahepatic UVD, portal vein agenesis, and cardiomegaly
- ADV itself is significantly associated with fetal cardiac and extracardiac anomalies, aneuploidies and hydrops, independent of UVD. Fetuses with extrahepatic UVD have more risk of developing CHF.
- 11 survivors at most recent follow-up, none had sequelae attributable to ADV

References:

