

Fetal intraabdominal umbilical vein varix complicated with intrauterine fetal death

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Objective

Fetal intraabdominal umbilical vein varix (UVV) is a focal dilatation of the intra-abdominal umbilical vein. Prevalence is 1 case per 2300 births. It appears as a round or fusiform cystic structure in the fetal abdomen, which shows continuity with the umbilical vein on gray scale and color doppler imaging. The diagnostic criteria include the UVV diameter to be wider by at least 50% compared to the diameter of the intrahepatic umbilical vein and an intra-abdominal umbilical vein diameter exceeding 9 mm or being greater than two standard deviations above the mean for gestational age. It is associated with chromosomal abnormalities, fetal hydrops and other adverse pregnancy outcomes. We present a case of UVV complicated with intrauterine fetal death.

Methods

Case Report.

Results

A 28 years old patient, G1P0, was admitted to our clinic at 8 weeks of gestation. At 20 weeks of gestational age, in the routine anomaly scan, a 7x10 mm anechoic oval-shaped and well- limited cyst was detected in the fetal abdomen immediately cephalad to the umbilical vein insertion. Venous flow was observed on color doppler. Varix diameter was > 2 standard deviations above the mean for gestational age. There were no other anomalies. Gestational diabetes was detected at 24 weeks of gestation and blood glucose was regulated by insulin therapy. Fetus continued to be plotted at the 10th centile with normal Doppler studies. At 30 weeks of gestational age varix's size became 19 mm. Despite the close follow-up, fetus died at 35 weeks and patient delivered a phenotypically normal girl weighing 2040 g. Chromosome analysis was 46, XX.

Conclusion

Detection of fetal intra-abdominal umbilical vein varix is easy with careful ultrasound screening. Fetal karyotyping needs to be offered if there are other abnormalities. Close monitoring and early delivery can be considered.