

EP07.35. VEIN OF GALEN ANEURYSMAL MALFORMATION

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Introduction

Vein of Galen aneurysm is a rare choroidal arteriovenous malformation of the intracranial venous system. It arises between 6-11 weeks of gestation from one or more arteriovenous fistulas draining into the prosencephalic (Markowski's) vein, leading to hyperdynamic circulation, cardiomegaly, hydrops, and possible fetal demise (1,2). Prenatal diagnosis is usually established in the second or third trimester by ultrasound, which reveals a midline anechoic mass with turbulent flow on color Doppler (3). Clinical manifestations vary from incidental findings to progressive macrocephaly or acute heart failure, with echocardiography being essential for prognostic assessment (4).

Clinical case

We report the follow-up of a 32-year-old gravida 2, patient with a previous cesarean section and no other relevant medical history. At 29.2 weeks of gestation, fetal ultrasound identified a vein of Galen aneurysm, characterized by vascular dilation with turbulent flow, associated with heart failure and dilated cardiac chambers.

The patient underwent close serial ultrasound monitoring of cardiac function until 35.1 weeks of gestation, when the fetus developed intrauterine growth restriction. Delivery was performed by cesarean section, resulting in a male neonate weighing 1,900 g (<1st percentile) and presenting clinical signs of heart failure. The neonate had a poor clinical course, ultimately culminating in neonatal death.

Objective

To describe the prenatal course and outcome of a fetus with vein of Galen aneurysm diagnosed in the third trimester, highlighting the role of serial ultrasound monitoring, its impact on fetal prognosis, and the importance of multidisciplinary management and referral to specialized centers.

Disussion & Conclusion

Vein of Galen malformation is a rare condition associated with high mortality. The prenatal detection rate is approximately 29%, and diagnosis is typically established late in the second or third trimester (1). Prognosis largely depends on fetal cardiac and cerebral status, with markers such as cardiomegaly, tricuspid valve regurgitation, polyhydramnios, and fetal hydrops serving as poor prognostic indicators (5).

We report a case of a fetus diagnosed with vein of Galen malformation, monitored from 29.2 weeks of gestation until delivery, which resulted in neonatal death. This condition carries a high perinatal risk. Prenatal diagnosis allows for parental counseling and consideration of potential interventions. Careful monitoring and multidisciplinary management are essential, and the development of specialized centers is recommended to improve outcomes.

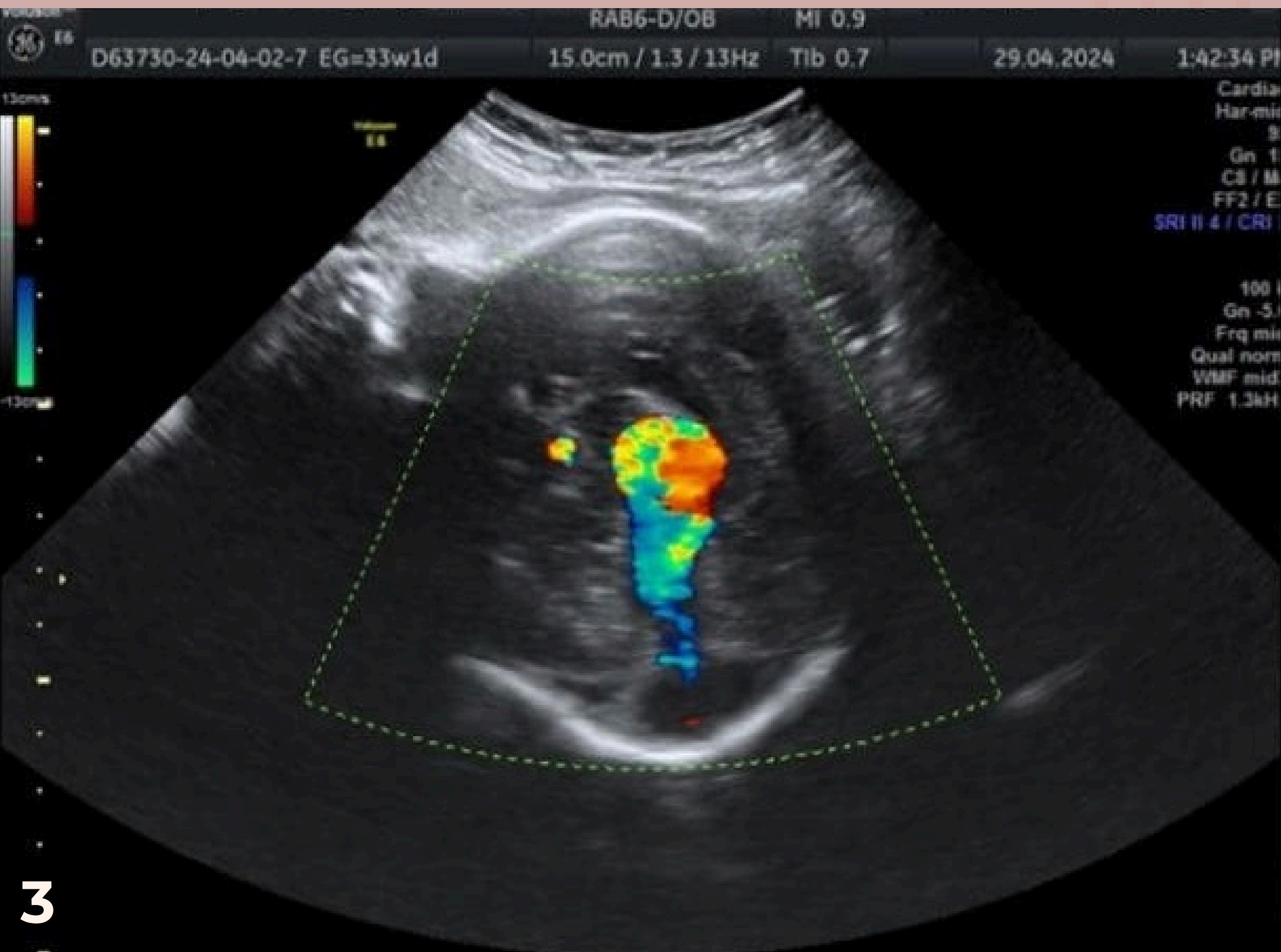
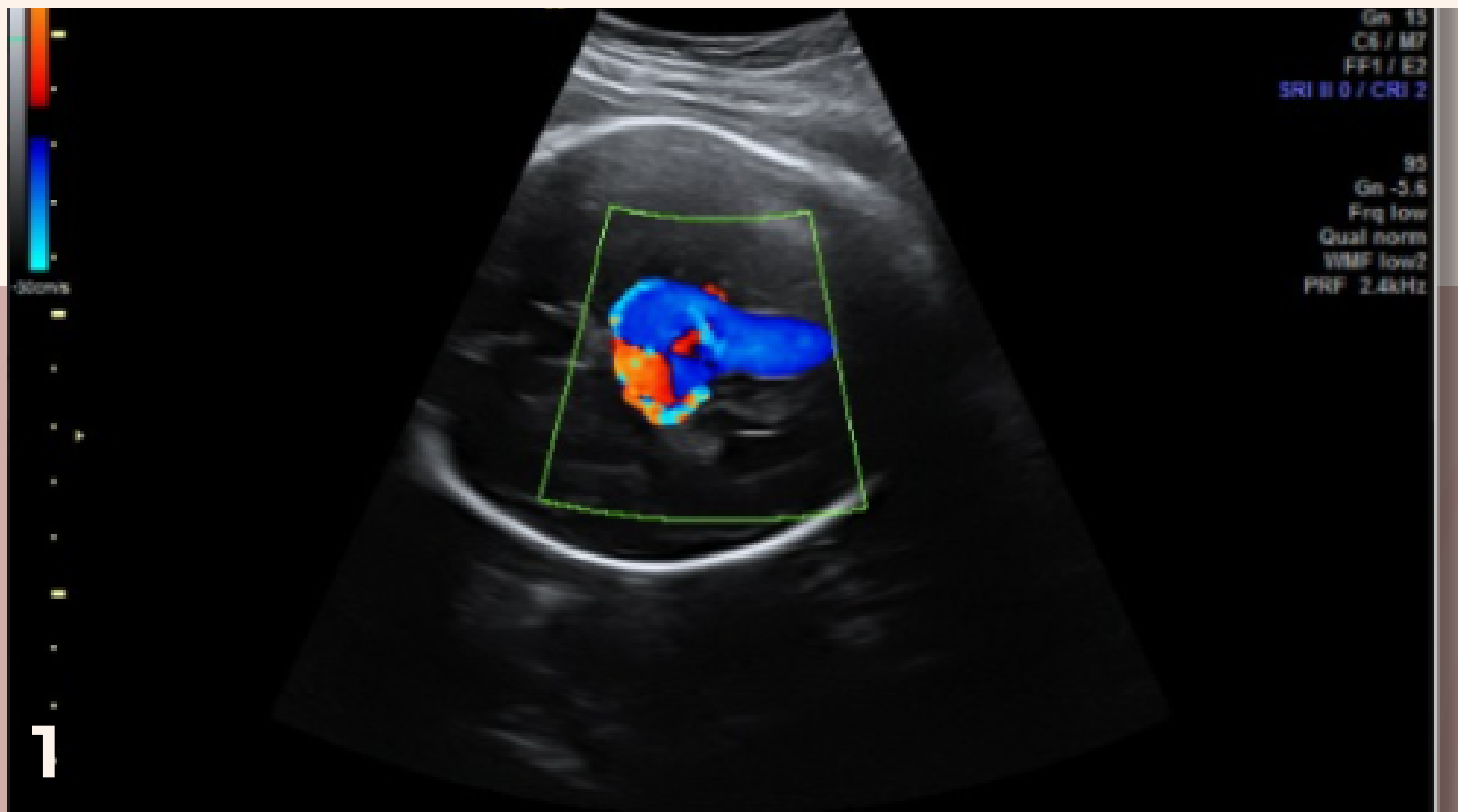


Figure 1, 2. Axial slices showing aliasing caused by the vein of Galen aneurysm. **Figure 3.** Sagittal view of the vein of Galen aneurysm. **Figure 4.** Four-chamber view demonstrating cardiomegaly and signs of significant heart failure.



Audiovisual content



References