

**P06.45**

# **Prenatal ultrasound features and postnatal outcome of vein of Galen aneurysmal malformation: a series of four cases**

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## **Introduction**

Vein of Galen aneurysmal malformation (VGAM) is a rare congenital intracranial vascular anomaly caused by abnormal arteriovenous shunting into the median prosencephalic vein. Prenatal ultrasound plays a key role in its detection and in assessing the risk of fetal and neonatal complications.

## **Case**

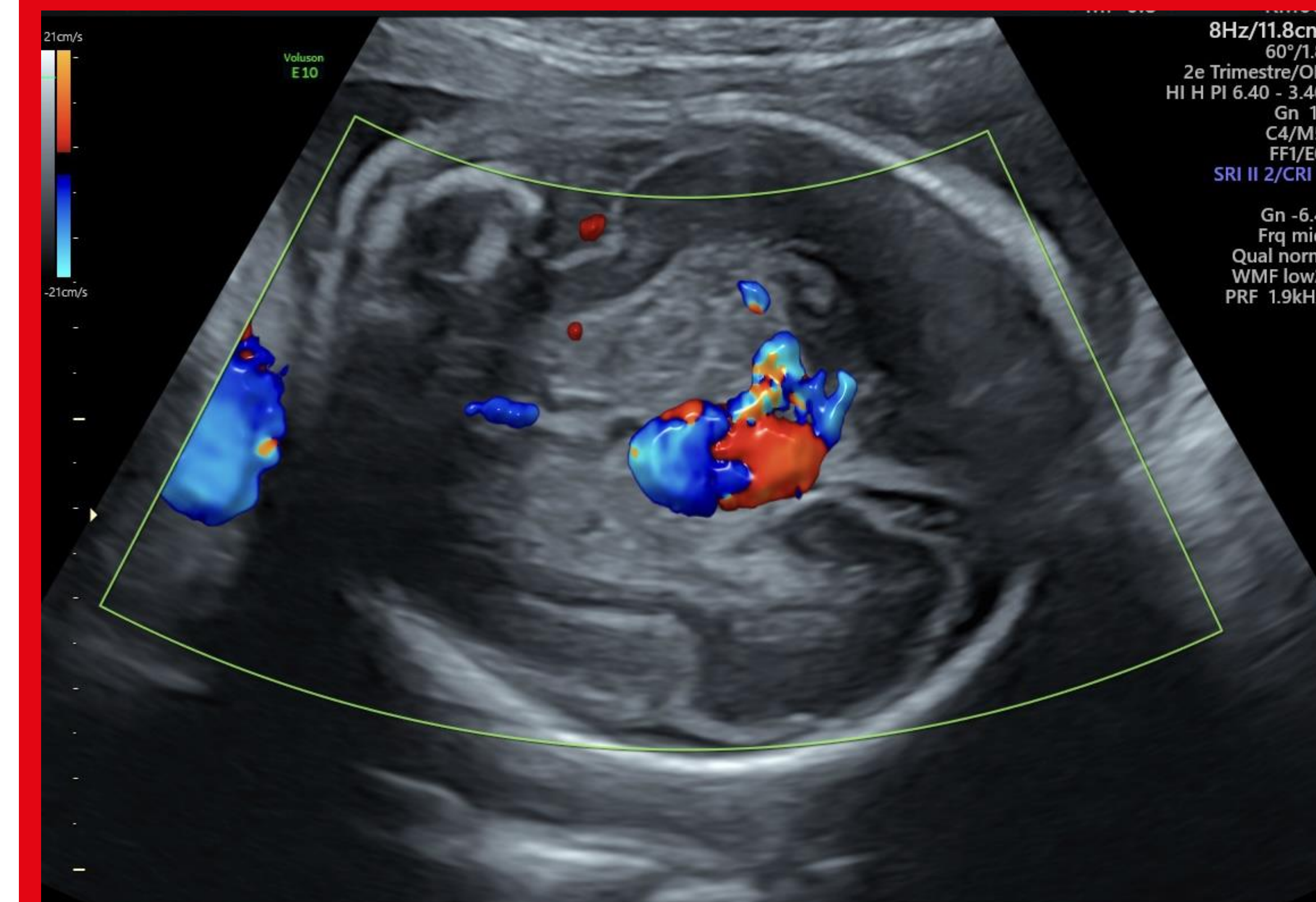
We report four fetuses diagnosed with VGAM during routine prenatal ultrasound examination in a tertiary referral center. In all cases, ultrasound demonstrated a median supratentorial cystic structure located posterior to the third ventricle. Color Doppler revealed intense turbulent flow within the lesion, while spectral Doppler showed arterialized venous flow with high velocities (*Figure 1*).

Additional ultrasound findings included dilation of the straight sinus and torcular region.

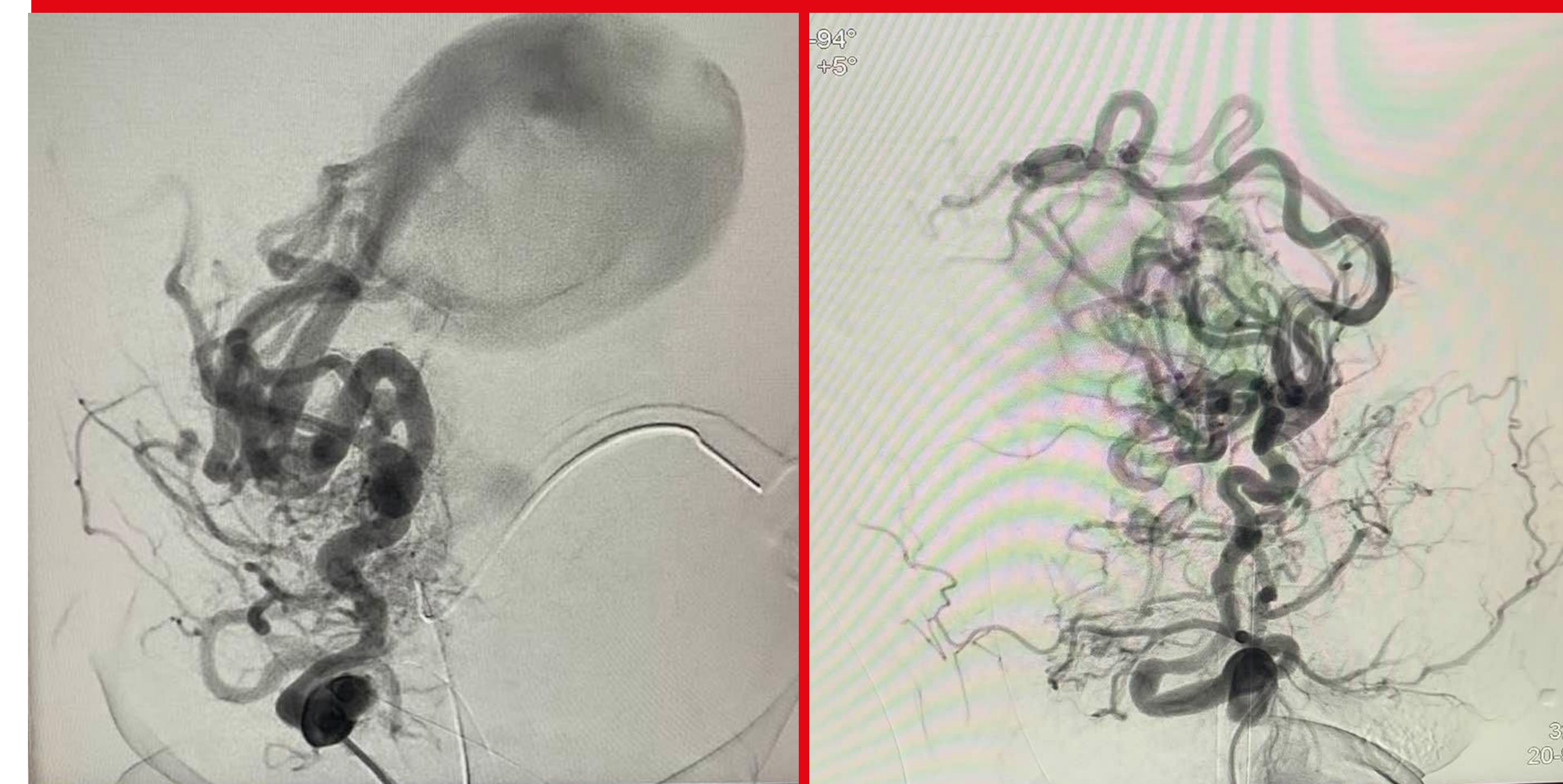
Evaluation of the fetal cardiovascular status was systematically performed to identify signs of high-output cardiac failure, including cardiomegaly and tricuspid regurgitation. Postnatal evolution differed between cases. One neonate developed severe congestive heart failure shortly after birth and died in the early neonatal period despite intensive care. The remaining three neonates underwent immediate postnatal endovascular embolization performed by interventional neuroradiology (*Figure 2*), resulting in hemodynamic stabilization and favorable early clinical evolution.

## **Conclusion**

Early diagnosis allows delivery planning in specialized centers with access to neonatal intensive care and interventional neuroradiology, enabling prompt postnatal embolization and improving neonatal prognosis.



*Figure 1 Color Doppler*



*Figure 2 endovascular embolization*