

Background

- Calyceal diverticulum is a rare prenatal finding.
- It presents as a fluid-filled space, lined with transitional epithelium and communicating with the main collecting renal system with an infundibulum.
- Prenatal diagnosis is challenging as they differentiate from other cystic renal findings, as renal cysts, hydronephrosis or partial renal infarction.

Case Presentation

A female fetus was referred to our hospital at the 35+4 week of pregnancy due to a defect in the fetal right renal parenchyma and persistent oligohydramnios. A premature rupture of membranes (PROM) was excluded.

Prenatal: Ultrasound examination confirmed oligohydramnios and revealed a solitary hypoechoic, fluid-filled, triangular wedge-shaped defect in the right renal parenchyma approximately 1.2 x 2.3 cm (Fig. 1). This finding was not detected in the second trimester screening.

Antenatal: Ultrasound examination consistent with the prenatal findings. The renal function and blood supply were normal and no other urinary tract anomalies were detected (Fig. 2).

Differential diagnosis

Renal cyst: excluded due to the triangular shape of the defect.

Infarction: blood supply was physiological. If an infarction happened, it should have been partial and occurred in a segmental brunch of the renal artery.

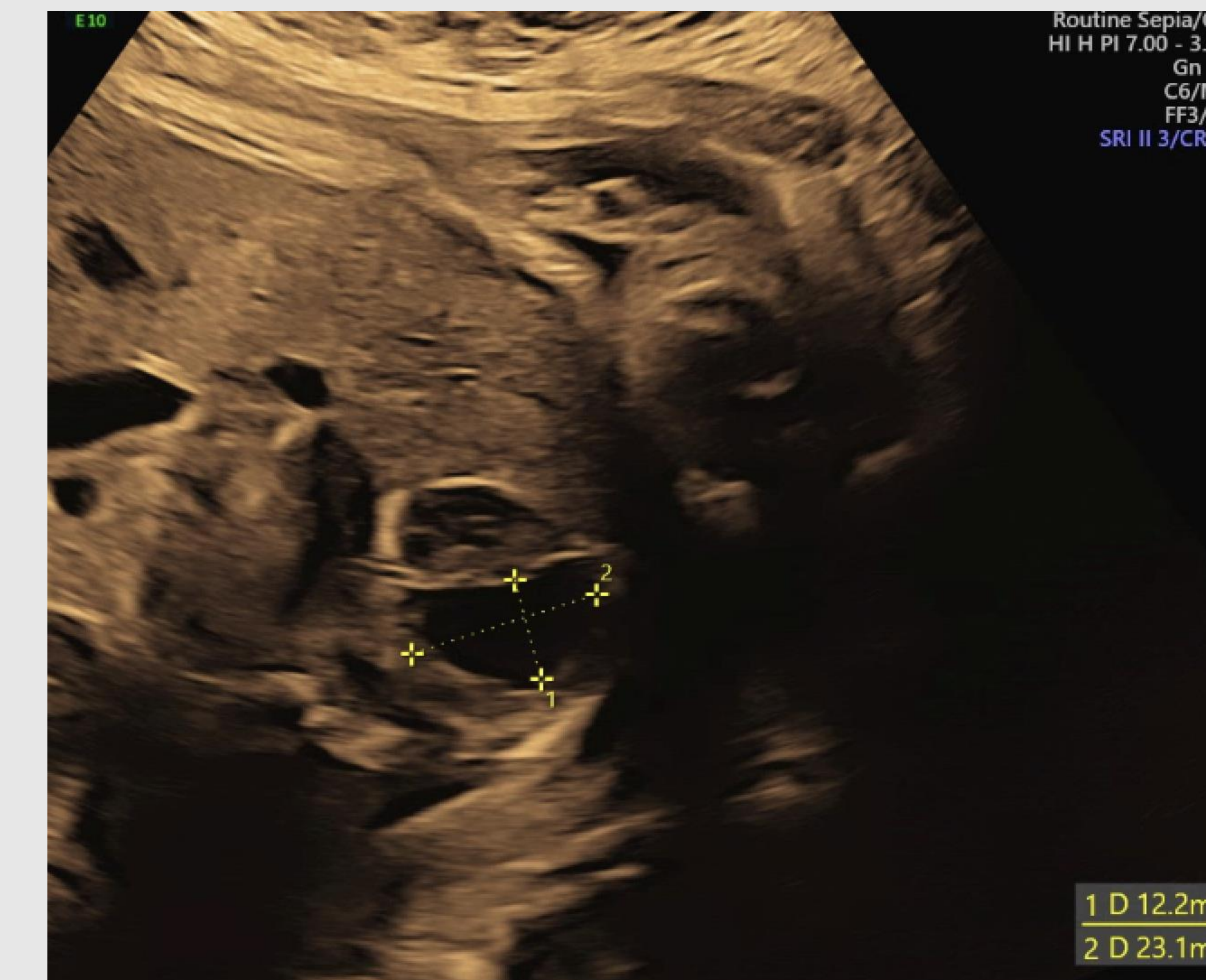


Fig.1 Prenatal Ultrasound shows an enlarged right kidney with a hypoechoic defect in the renal parenchyma

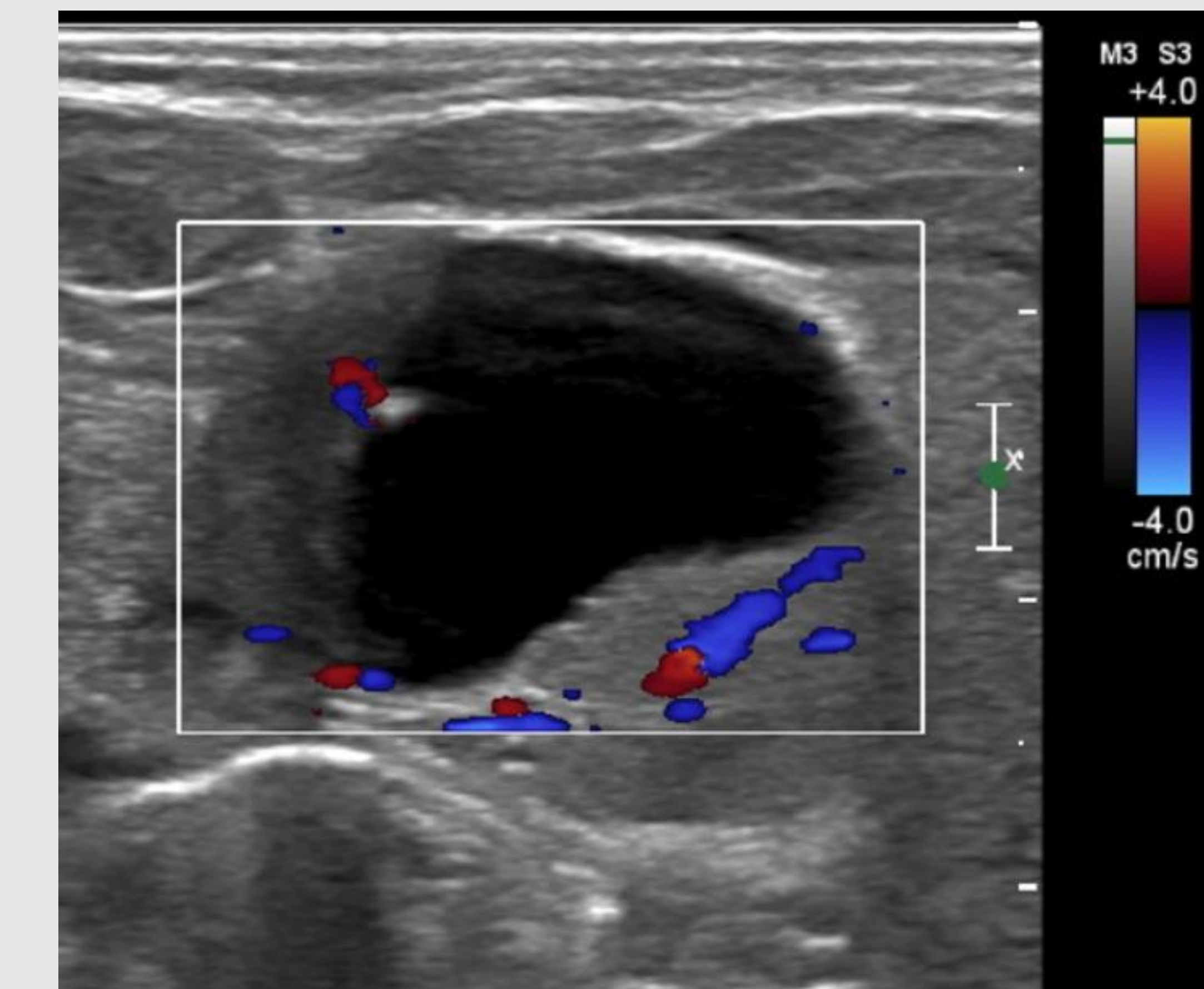


Fig. 2 Antenatal Kidney Ultrasound shows sufficient blood supply in the right kidney

Conclusion

Fetal calyceal diverticulum is a **rare prenatal finding** that may mimic other cystic renal lesions. **Accurate prenatal ultrasound** and **postnatal imaging** are crucial for correct diagnosis. Most cases are **benign and asymptomatic**, but long-term follow-up is advised to detect possible complications.