

Intrapartum Acute Kidney Injury in setting of Severe Hydronephrosis in Congenital Unilateral Renal Agenesis.

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Introduction: Solitary kidney can be either congenital or acquired as a result of nephrectomy. Congenital unilateral renal agenesis in pregnancy is associated with increased risk of proteinuria, pre-eclampsia and risk of prolonged hospitalization. Here we discuss a case report of the diagnosis of congenital unilateral renal agenesis in late pregnancy complicated by acute kidney injury.

Case: 18yo G1P0 with first prenatal visit at 35wk with no past medical history was evaluated with MRI for findings of large renal cyst on routine obstetric ultrasound. MRI showed non-visualized right kidney and severe hydroureteronephrosis of the left kidney. Late entry to prenatal care, prevented early renal assessment in this case. The patient developed pre-eclampsia with severe features at 39wk and underwent Cesarean delivery which went uncomplicated. Post-operatively she developed acute kidney injury with progressively declining urine output. Nephrology recommended emergent percutaneous nephrostomy which drained 1600 ml of urine. Repeat ultrasound showed marked improvement with only mild left-sided hydronephrosis. Her creatinine levels normalized, and she was discharged with close urology follow-up.

Conclusion: Preconception counselling plays a crucial role in establishing the baseline renal function and educating about potential complications in unilateral renal agenesis. Multidisciplinary team approach involving MFM, Nephrology, urology is crucial for optimizing the maternal and fetal outcomes. During pregnancy, pre-eclampsia prophylaxis with low-dose aspirin is recommended, and close monitoring should be done for early identification of potential complications.

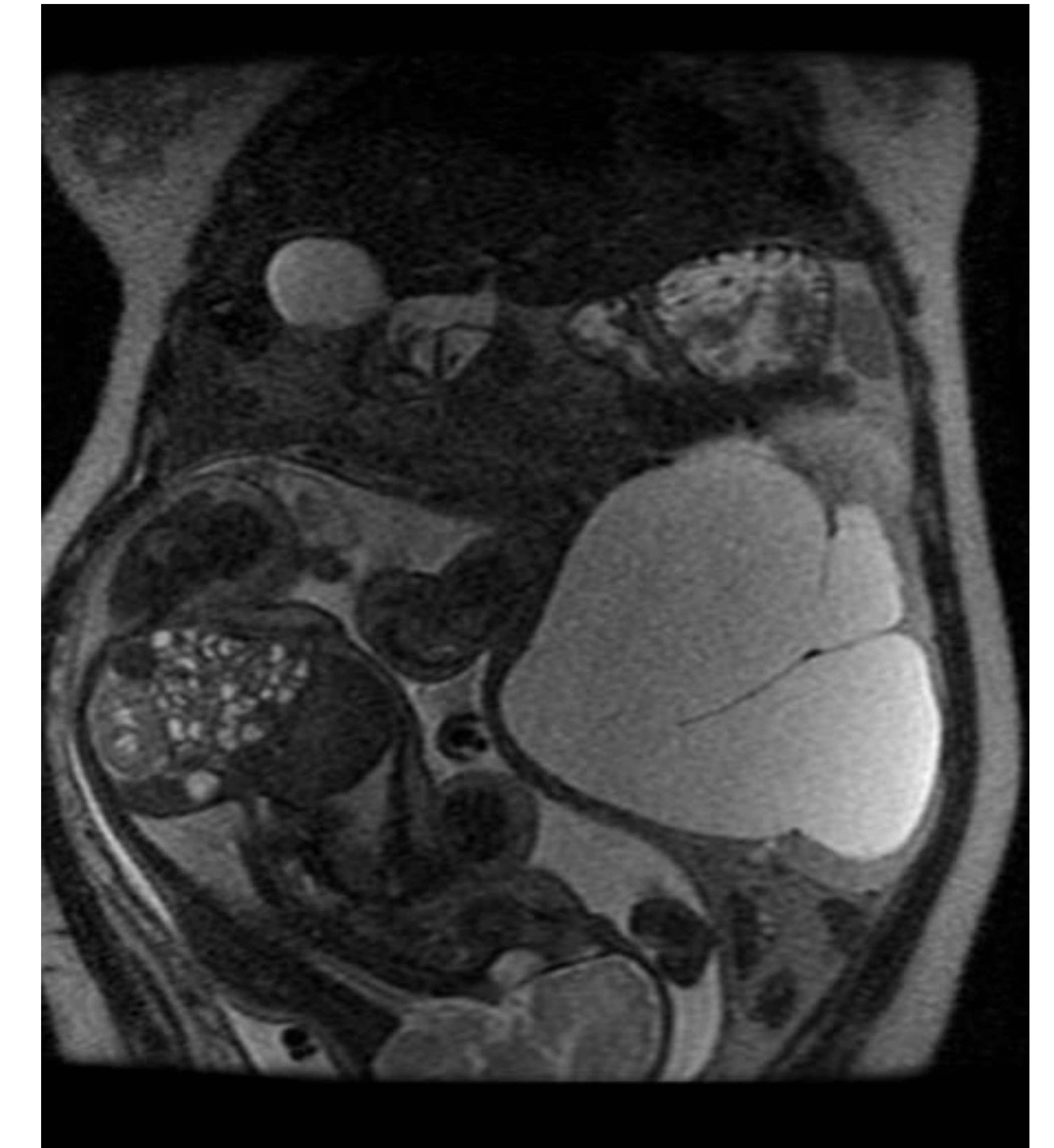
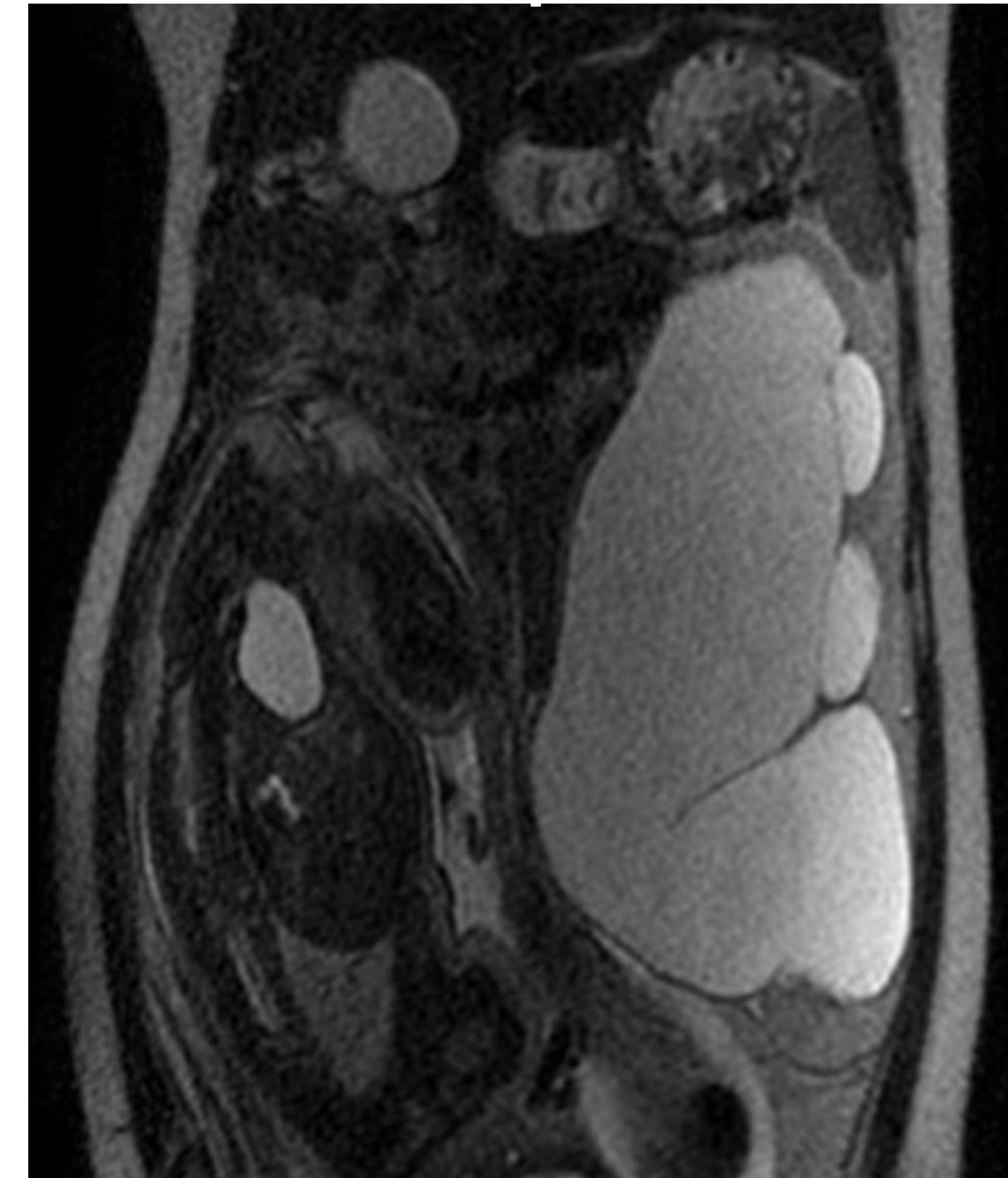


Image 1&2- MRI showing severe left hydronephrosis

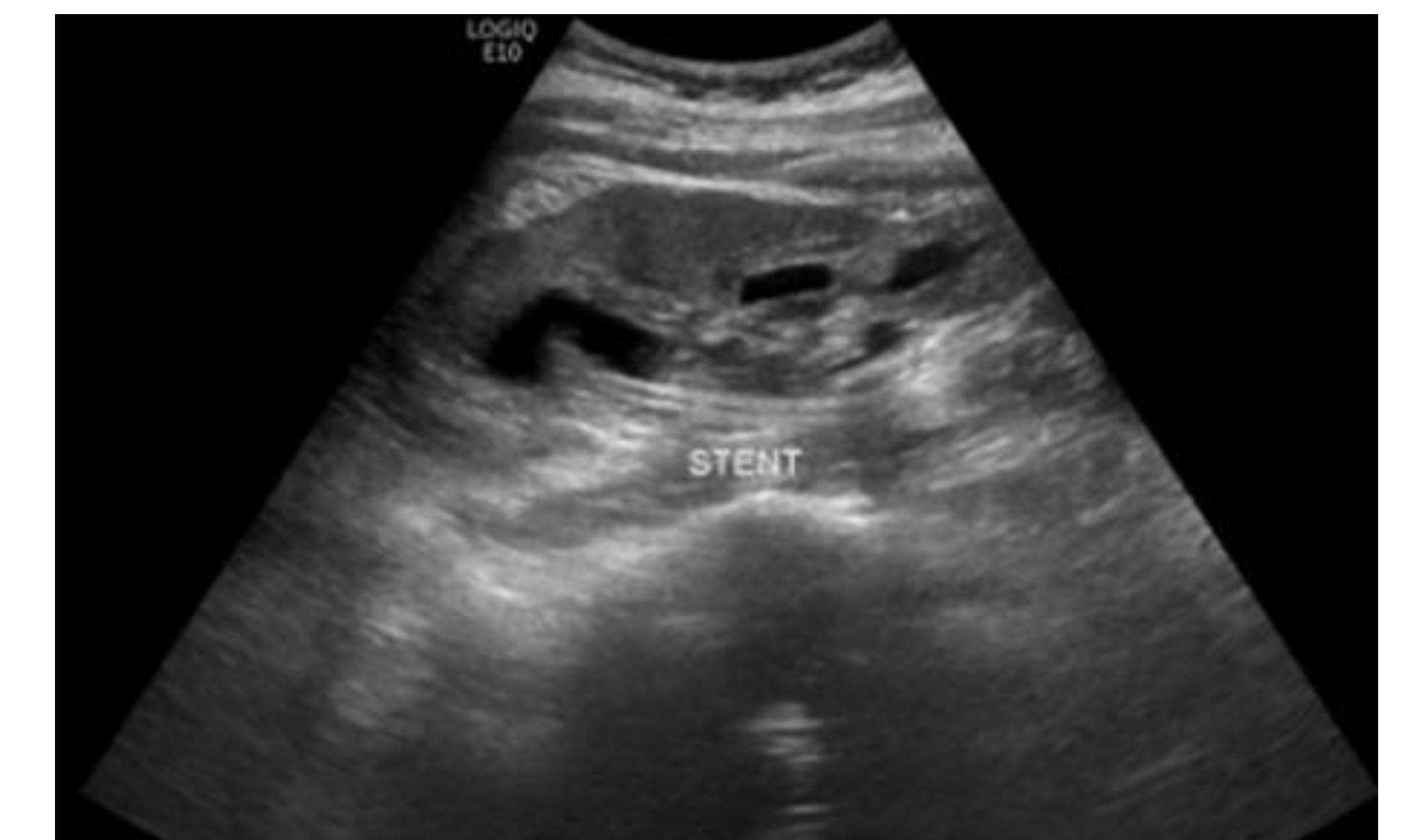
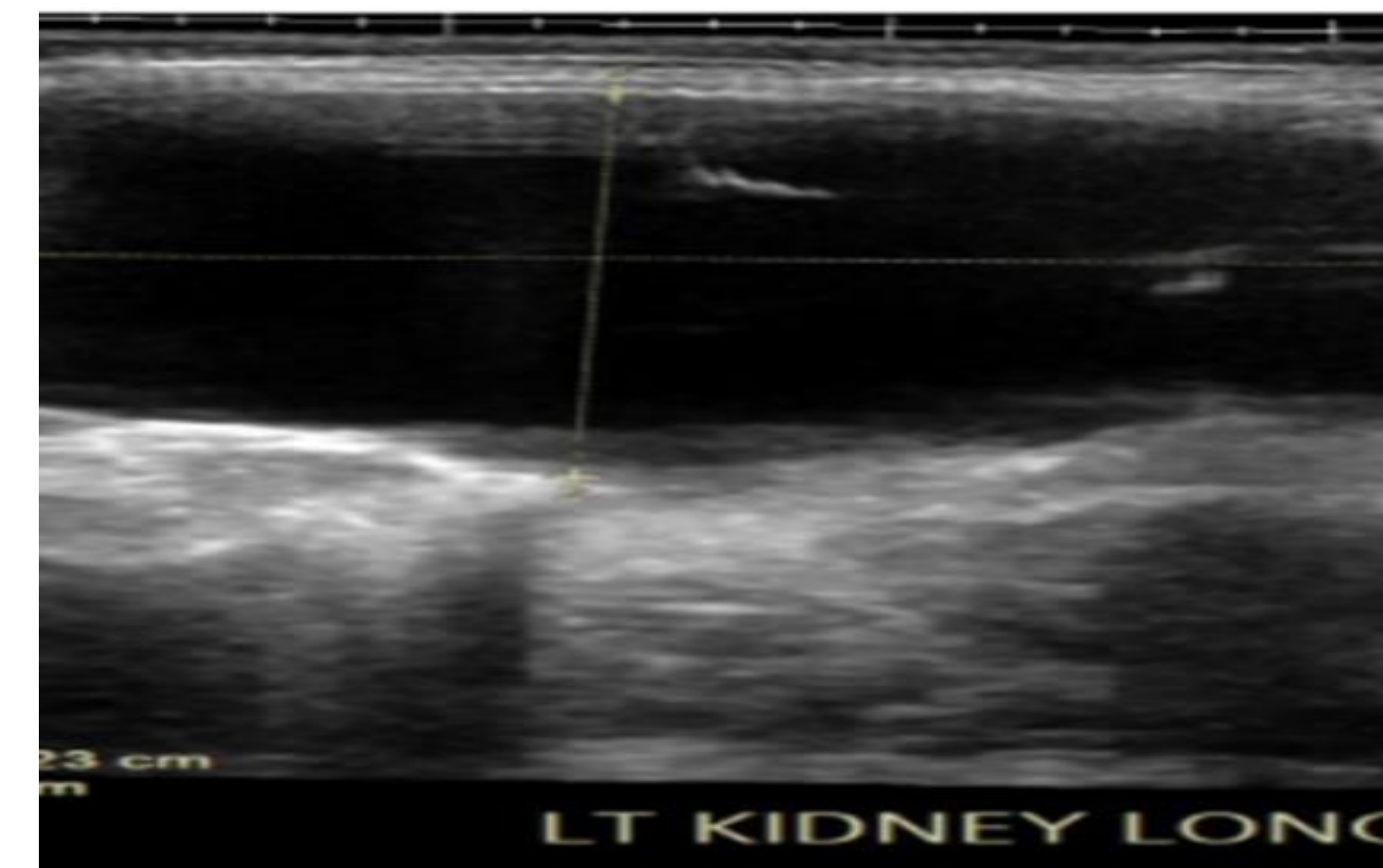


Image 3&4- Renal ultrasound before and after stent placement