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Figure 1. Kidney, ureter, and bladder radiograph demonstrating bulging flanks with medial displacement of the bowel concerning for free fluid.

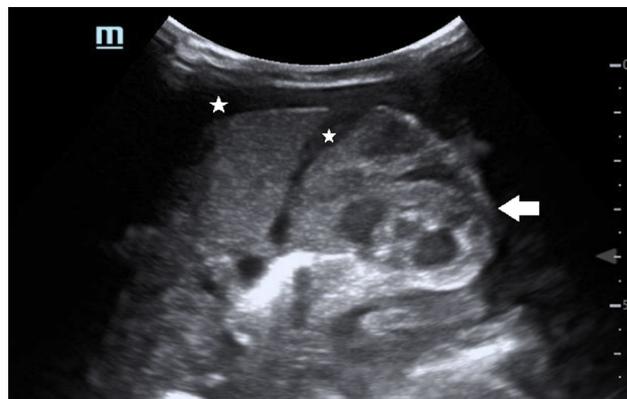


Figure 2. Bedside ultrasonography of the right upper quadrant, demonstrating significant free fluid (stars) and right-sided hydronephrosis (arrow).

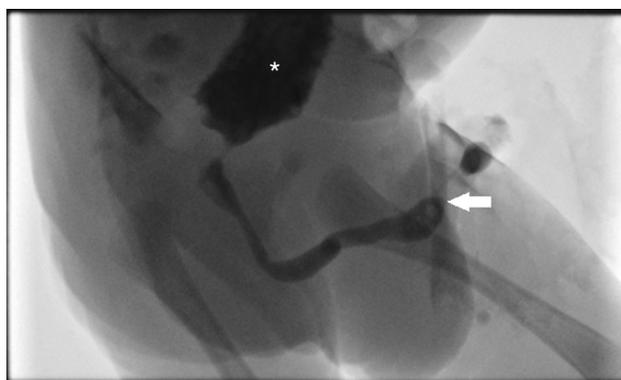


Figure 3. Voiding cystourethrogram demonstrating the bladder (asterisk), with dilatation of the proximal urethra and decreased caliber of contrast opacification within the distal urethra (arrow).

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A 2-week-old male infant presented to the emergency department with fussiness and abdominal distention. Prenatal history was notable for prematurity at 35 weeks, with normal prenatal ultrasonographic results. His presenting history was remarkable for a nondisplaced, parietal skull fracture diagnosed from an accidental fall 4 days before presentation. Physical examination was notable for mild hypothermia (35.5°C [95.9°F]) and a firm, distended abdomen. A kidney, ureter, and bladder radiograph revealed bulging flanks, with medial displacement of bowel concerning for free fluid (Figure 1). Bedside ultrasonography revealed significant abdominal free fluid, with moderate right-sided hydronephrosis (Figure 2, Videos 1 and 2). Laboratory results demonstrated renal failure, with a blood urea nitrogen level of 64 mg/dL (4 to 19 mg/dL) and creatinine level of 3.75 mg/dL (0.20 to 0.40 mg/dL).

For the diagnosis and teaching points, see page e42.

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IMAGES IN EMERGENCY MEDICINE

*(continued from p. e41)***DIAGNOSIS:**

Anterior urethral valves with renal forniceal rupture. Ultrasonography demonstrated bilateral dysplastic kidneys, moderate to severe right-sided hydronephrosis, and large complex fluid concerning for urinary ascites as a result of forniceal rupture. A Foley catheter was placed for bladder decompression and a voiding cystourethrogram demonstrated anterior urethral valves ([Figure 3](#)). The patient underwent endoscopic valve ablation with urology and was discharged 11 days later, with improving renal function and hydronephrosis.

Anterior urethral valves are a rare cause of obstructive uropathy and are 7 times less common than posterior urethral valves.¹ Typical presentations include poor urinary stream or urinary tract infection. Up to 20% of patients present with end-stage renal disease.² As such, early detection and careful management are crucial. Bedside ultrasonography can help to narrow differential diagnoses and to guide management of patients presenting with abdominal distention.

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2. Cruz-Diaz O, Salomon A, Rosenberg E, et al. Anterior urethral valves: not such a benign condition. *Front Pediatr.* 2013;1:35.