

Posterior Urethral Valve

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06/11/2010

History

Newborn male with prenatal hydronephrosis.

Diagnosis

Posterior Urethral Valve

Discussion

Posterior urethral valves are by far the most common congenital obstructive lesion of the urethra, occurring only in phenotypic boys. Posterior urethral valves result from the formation of a thick membrane from tissue of wolffian duct origin that courses obliquely from the verumontanum to the most distal portion of the prostatic urethra.

VCUG is the best imaging technique for the diagnosis of posterior urethral valves. Radiologic findings include dilatation and elongation of the posterior urethra and, occasionally, a linear radiolucent band corresponding to the valve. The bladder neck becomes hypertrophic and appears narrow in relation to the dilated posterior urethra. Bladder trabeculation and diverticula occur with any type of bladder outlet obstruction (functional or anatomic). Vesicoureteral reflux and hydronephrosis are often seen. Hydronephrosis, dysplastic kidneys (disordered echogenicity, poor corticomedullary differentiation, cysts), hydroureter, distended bladder with dilated posterior urethra, and urine ascites may be seen on sonography. On prenatal sonography, oligohydramnios, hydronephrosis with or without parenchymal thinning, bladder distention, and fetal ascites may be seen.

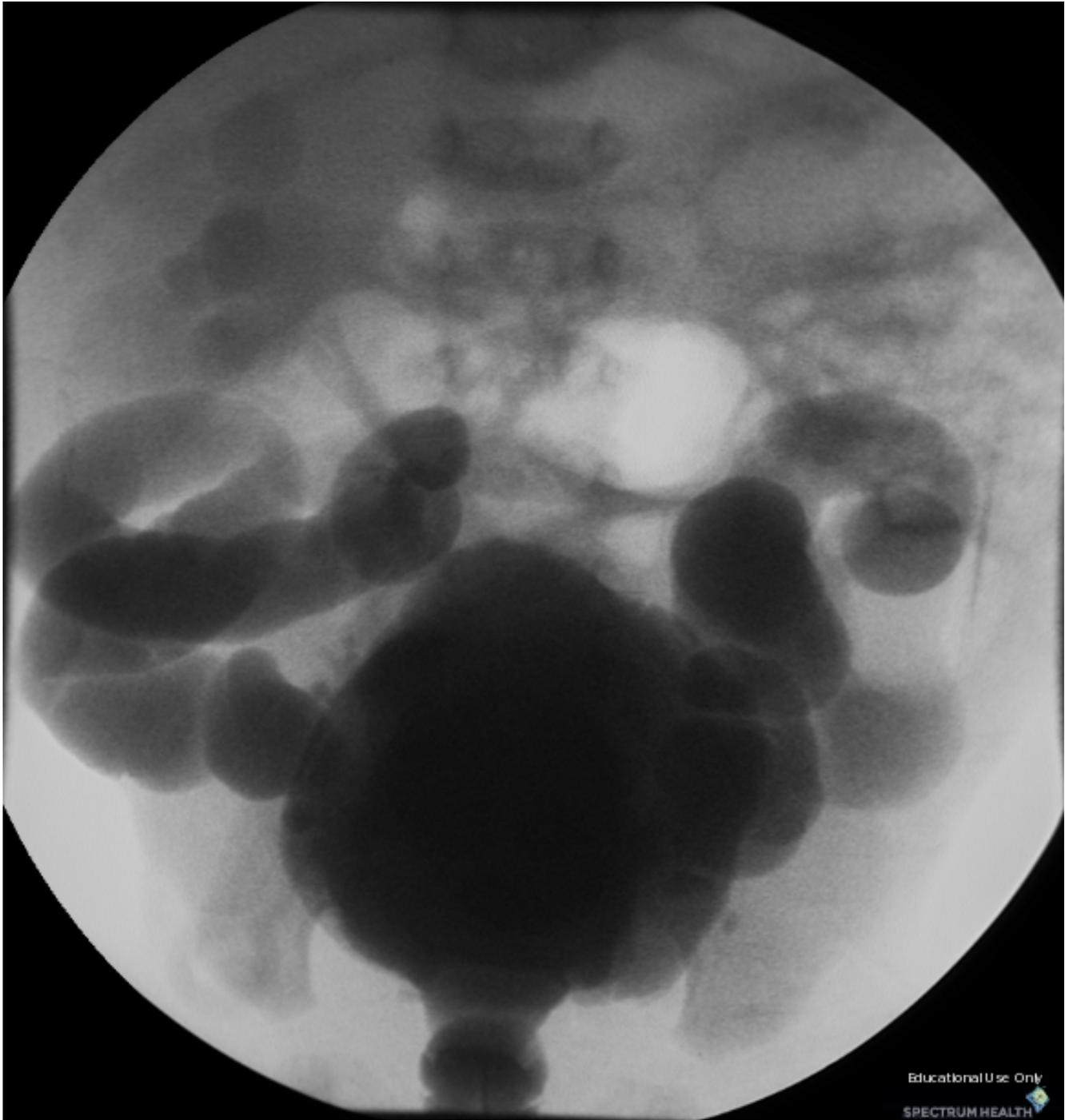
Findings

FL-Two fluoroscopic spot images from a voiding cystourethrogram show massive vesicoureteroreflux, hypertrophied trigone, dilated posterior urethra, and linear filling defect in the posterior urethra.

Reference

Berrocal T, Lopez-Pereira P, Arjonilla A, Gutierrez J. Anomalies of the distal ureter, bladder and urethra in children: Embryologic, radiologic and pathologic features. *Radiographics* (2002); 22:1139-1164.





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