AN ANTERIOR URETHRAL VALVE WITHOUT URETHRAL DILATATION DIAGNOSED BY CYSTOSCOPY IN A NEONATE

Nilay Hakan¹, Suleyman Cuneyt Karakus², Mustafa Aydin³, Alev Suzen³, Nurcan Cengiz⁴
¹Department of Pediatrics-Neonatology, Sitki Kocman University School of Medicine, Mugla, Turkey
²Department of Pediatric Surgery, Sitki Kocman University School of Medicine, Mugla, Turkey
³Department of Pediatrics-Neonatology, Firat University School of Medicine, Elazig, Turkey
⁴Department of Pediatric Nephrology, Sitki Kocman University School of Medicine, Mugla, Turkey

ABSTRACT
Anterior urethral valve (AUV) is a rare congenital anomaly that can lead to severe obstructive uropathy. Early diagnosis and management of AUV is very important to prevent further damage due to vesicoureteral reflux and infection. We present a neonate with febrile urinary tract infection and ultrasonography revealed hydronephrotic left kidney with a distended urinary bladder. Voiding cystourethrogram (VCUG) initially missed an AUV which was picked up on cystourethroscopy. When VCUG was examined again, an AUV without dilatation in the urethra was seen. Transurethral valve ablation was done.

Discussion
AUV is a congenital mucosal fold located distally to the membranous urethra. It can occur as an isolated entity or in association with a proximal diverticulum. Firlit et al classified AUVs as type 1 which consists of a demonstrable AUV with minimal proximal urethral distention and types 2, 3 and 4 that are associated with urethral diverticulum. On the other hand, some authors distinguish between AUV and anterior urethral diverticulum. They especially emphasized the incomplete spongy tissue formation in the anterior urethral diverticulum and normal corpus spongiosum development in patients with AUV. AUV have been effectively treated with transurethral valve ablation, whereas the anterior urethral diverticulum usually needs diverticulectomy with urethroplasty.

VCUG is the diagnostic modality of choice in the diagnosis of AUV. The urethra generally appears dilated proximal to the valve and narrowed distal to it. A valve may be demonstrated as a linear filling defect along the ventral wall, or it may show a dilated urethra ending in a smooth bulge or an abrupt change in the caliber of the dilated urethra. It can also reveal

CONTACT Nilay Hakan
Email: nhakan@hotmail.com
Address for Correspondence: Nilay Hakan, M.D, Department of Pediatrics-Neonatology, Sitki Kocman University School of Medicine, 48000, Mugla, Turkey. ©2019 Pediatric Oncall
a thickened trabeculated bladder, a hypertrophied bladder neck, VUR, and urethral diverticula. However, it should be noted that the valves are likely to be missed on VCUG when urethral dilatation is not obvious. In addition, cystourethroscopy usually helps in confirming the diagnosis. In our patient too, the initial VCUG missed the presence of AUV and was picked up on cystourethroscopy. If there are no posterior urethral valves in cystourethroscopy, it would be appropriate to look carefully for the presence of AUV and to re-examine the VCUG.  

In conclusion, AUV without urethral dilatation is a rare congenital anomaly of the male urethra which can easily be overlooked during VCUG or cystourethroscopy and may require a re-look.

References:

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