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### **Posterior urethral valve in Thai boys: 30-year experience in a single center**

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**Case Study: Background:** Posterior urethral valve (PUV) is the most common congenital bladder outlet obstruction in boys, developing in utero and causing lifelong renal damage.

**Objective:** To study the presentation, clinical course, complications, outcomes and renal survival in posterior urethral valve PUV boys.

**Methods:** We reviewed the medical records of PUV boys treated at the Pediatric Nephrology Clinic, Prince of Songkla University, Thailand during 1991-2020

**Results:** 77 PUV boys were identified. The median age at diagnosis was 4.8 months (IQR 0.8-28.7). The most common presentations were urinary tract infection (UTI), poor urine stream and urinary dribbling in 26 (33.8%), 19 (24.7%) and 11 (14.3%) boys, respectively.

Renal ultrasound results were available in 70 boys, of whom 8 (11.4%) and 56 (80%) had unilateral and bilateral hydronephrosis, respectively.

Of 72 voiding cystourethrogram results, 18 (25.0%) and 22 (30.6%) boys had unilateral and bilateral vesicoureteral reflux, respectively.

<sup>99m</sup>Tc dimercaptosuccinic acid renal scans were performed in 30 boys; 12 (40%) and 8 (26.7%) had unilateral and bilateral renal damage, respectively.

Fifty-nine (76.6%) boys had 149 UTIs; 42 (54.4%) had recurrent UTI. Forty-eight boys had valve ablation at the median age of 30.3 months (IQR 12.8-54.8). 22 boys (28.6%) developed CKD at a median age of 15.0 years (IQR 12.2- ). We identified no independent risk factors for CKD. The median age of the known survivors at the study end was 6.3 years (IQR 2.2-12.6).

**Conclusions:** In this study of 77 PUV Thai boys, UTI was the most common presentation.

Recurrence of UTI was the most common consequence and CKD was the most serious consequence. One-fourth of the boys had developed CKD at the latest follow-up. PUV is a severe CAKUT which has high morbidity and high mortality. Lifelong follow-up for renal and bladder functions is essential in all PUV patients.