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Review
and documentation of the
data
by the Throat Valves in Cairo University Pediatric Hospital

باللغة العربية: متابعة وتوثيق نتائج ما بعد الجراحة
التي أجريتها على المرضى الذين خضعوا لجراحة
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**Follow up of the patients with posterior urethral
valve in Cairo university pediatric hospital,
review and documentation of the data**

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List of Abbreviations

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Δ p _{det}	: Change in detrusor pressure
ΔV	: Volume change
APD	: Antero-posterior diameter
ARF	: Acute renal failure
C	: Compliance
CIC	: Clean intermittent catheterization
CKD	: Chronic kidney disease
COPUM	: Congenital obstructing posterior urogenital membrane.
Crcl	: Creatinine clearance.
DMSA	: Dimmer captosuccinic acid.
DTPA	: Diethylene tri amine pentacetate.
ESRD	: End stage renal disease
GFR	: Glomerular filtration rates.
LUTS	: Lower urinary tract symptoms.
MCUG	: Micturating cystourethrogram

List of Abbreviations

ND: YAG	: Neodymium doped Yttrium aluminum garnet
NKF- K/ DOQI	: National kidney foundation's kidney disease. Outcomes quality initiative.
PVR	: Post void Residual.
PUVs	: Posterior urethral valves
RIFLE	: Risk, injury, failure, loss, end stage.
RNC	: Radionuclide cystography.
ROC	: Receiver operator characteristic
SCR	: Serum creatinine
SD	: Standard deviation.
SPSS	: statistical package For the social science
US	: Ultrasound.
UTI	: Urinary tract infection.
VCUG	: Voiding cystourethrogram
VUR	: Vesico – ureteric reflux
VURD	: Vales, Unilateral reflux, Renal dysplasia

Introduction

Historical background

Morgagni was the first to report a description of Posterior urethral valves in 1717, Confirmed by Langenbeck in 1802, who commented on valve-like folds in autopsy specimens but he did not describe any findings of clinical significance. (*Krishnan et al., 2006*)

Tolmatschew was the first to raise a comprehensive discussion of valves in 1870, he was also the first to recognize the pathology of PUVs and propose a theory describing its embryology. (*Tolmatschew, 1870*)

Young in 1919 was the first to propose a classification system for the lesion, based on 12 patients, that remains the most commonly used system even today. (*Young et al., 2002*)

PUVs are reported in 1/5000-8000 live births. (*Krishnan et al., 2006*)

PUVs can be associated with a lot of congenital anomalies including; hypospadias, ureteropelvic junction stenosis, imperforate anus, dysgenetic kidneys, double urethra, solitary kidney, crossed renal ectopia, congenital heart disease, and prune belly syndrome. (*Yohannes et al., 2002*)

PUVs are the most common cause of bladder outlet obstruction in childhood causing considerable morbidity, including urinary tract infection, chronic renal failure, urinary incontinence and even death. (*Hutton, 2004*)

Introduction

Mortality rates decreased from 36% to less than 10% in the past few decades, long-term morbidity is still considerable due to the secondary pathology of the valves. (*Caione et al., 2011; Otukesh et al., 2010*)

Mortality from PUVs usually occurs in newborns with severe bilateral renal dysplasia and pulmonary hypoplasia who were stillborn or died after birth, neonates who died of sepsis or electrolyte imbalances, or older children and adolescents who had renal failure. (*Yohannes et al., 2002*)

Urethral valves are a common cause of chronic renal failure and end-stage renal disease in children and are the etiology of approximately 35% of children who require renal transplantation. (*Penna et al., 2011*)

Approximately 22% of patients with PUV progressed to end-stage renal failure during a median follow-up of 31 years. (*Heikkilä et al., 2011*)

Most cases are now identified in utero with prenatal sonography, most cases of hydronephrosis are picked up immediately, Children, later on, may present with urinary tract infection, hydronephrosis, ascites, and/or thick distended bladder. In severe cases, renal failure, congestive heart failure, and respiratory distress may occur. (*Casale, 1990*)

Unfortunately, early diagnosis with the use of prenatal ultrasonography has not shown better improvement in the renal outcome compared with postnatal detection. (*Ylinen et al., 2004*)

Generally, Patients with PUVs represent 1% of those awaiting renal transplantation. (*Indudhara et al., 1998*)