six months with 14% of patients having nocturnal incontinence, 10% of patients requiring self intermittent catheterization to empty their reservoir and 2.5% of the study group having stress urinary incontinence.

This is an excellent review and instructional presentation by these authors. The paper is extremely strong in the area of voiding dysfunction. The use of a voiding diary and the strict criteria of urinary incontinence should be applauded. The authors' notations on their surgical technique and its positive effects should be carefully read by others performing this type of surgery and reconstruction. The very surgically precise technique including nerve sparing has done nothing but reward these physicians with excellent postoperative results. In addition, their explanation of the use of 40 cm of ileal segment for reconstruction and its positive results should be noted. A reader may question why this group required their patients with a residual > 100 cc to undergo clean intermittent catheterization. Perhaps these patients had recurring urinary tract infection or voiding dysfunction that was not clearly stated. In view of this excellent study group and their notations on the quality of life of patients after cystectomy, the authors if able should consider performing a sexual function questionnaire such as the PISQ and report their results on the sexual habits of this group that have had undergone a major yet successful urinary reconstruction. This may have a great value. The study group had a very low level of postoperative stress urinary incontinence. The authors' opinion on options for this subgroup would be of keen interest in view of other reports describing postoperative catastrophes at the time of sub urethral sling placement (1). Would they consider a trans obturator technique in view of its extra peritoneal position? The ileal conduit has been used for an extended period of time, even much to the surprise of the original describers (2). With excellent publications such as this, ileal neo-bladders will continue to increase in use when appropriate thus potentially one day surpassing ileal conduits as the most frequent urinary diversion in women. If dismissive of the orthotopic ileal neobladder, one should not discount the complications associated without diversion including stomal problems, peristomal dermatitis, stomal ischemia, peristomal hernias as well as stomal prolapse (2).

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PEDIATRIC UROLOGY

Routine voiding cystourethrography is of no value in neonates with unilateral multicystic dysplastic kidney

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Objectives: To determine if two successive ultrasound examinations could rule out the presence of clinically significant contralateral anomalies in neonates with multicystic dysplastic kidney (MCDK), thereby avoiding unnecessary voiding cystourethrography (VCUG).

Study Design: We followed 76 newborn infants with antenatally discovered MCDK. Two successive neonatal renal ultrasound examinations were performed, one within the first week and one at around 1 month of life. VCUG and isotopic studies were performed in all infants.

Results: Urologic anomalies of the contralateral kidney were present in 19 of 76 children (25%): vesicoureteral reflux (VUR) in 16 (21%), ureteropelvic junction obstruction in 2 (3%), and renal duplex kidney in 1 (1%). Sixty-one infants (80% of total) had normal contralateral urinary tract on the 2 successive neonatal renal ultrasound scans. Among them, 4 of 61 (7%) infants presented with low-grade VUR on VCUG that had resolved spontaneously before 2 years of age. The sensitivity, specificity, positive predictive value, and negative predictive value of two successive ultrasound scans in the neonatal period to predict contralateral urological anomalies on VCUG were 75%, 95%, 80%, and 93%, respectively.

Conclusions: In infants with antenatally diagnosed MCDK, two successive normal neonatal renal ultrasound scans will rule out clinically significant contralateral anomalies, thereby rendering the need for a neonatal VCUG unnecessary.

Editorial Comment

The authors reviewed retrospectively their experience since 1990 with prenatally diagnosed multicystic kidney disease. They look specifically at the need for a VCUG. They show that about 21% of patients had reflux. This number is comparable to that seen in the literature. Mostly the reflux was low grade, although 7 of 16 had reflux of Grade III, IV or V. The authors show that all cases of high grade reflux, and most of those with low grade reflux, had an abnormal ultrasound. They propose that VCUG should not be done routinely; only when the ultrasound is abnormal.

This is an interesting and somewhat controversial proposal. In general, little severe pathology occurs in the contralateral kidney of a neonate with an isolated multicystic kidney, making the author's proposal attractive. On the other hand, the authors provide no data on the use of prophylactic antibiotics and the rate of urinary tract infection (either with or without antibiotics). Although I intuitively agree with the concept, the data behind the proposal are, in my mind, limited. If they demonstrated that there were no UTIs, even without antimicrobials, this would provide data that diagnosing reflux is truly unimportant in the great majority of cases.

An even more interesting question is the cost-benefit of annual ultrasound examinations. Presumably, these are performed in order to follow the size of the kidney and to rule out a neoplasm. On the other hand, the size of the kidney is largely irrelevant and in the absence of symptoms (extremely rare), there is little need to know the size. Moreover, the disease does not exist in adulthood; hence, virtually all multicystic kidneys must involute over time. Neoplasm is vanishingly rare and even in that rare instance; will an annual ultrasound pick it up in reasonable time? Hence, on theoretical grounds, annual ultrasound is unnecessary. A formal study of this would be valuable.

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Myogenic bladder decompensation in boys with a history of posterior urethral valves

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Objective: To investigate whether myogenic bladder decompensation in patients treated for congenital posterior urethral valves (PUV, the most serious cause of infravesical obstruction in male neonates and infants) may be secondary to bladder neck obstruction, as despite prompt ablation of PUV these patients can have dysfunctional voiding during later childhood or adolescence, the so-called 'valve bladder syndrome'.

Patients and Methods: The study comprised 18 boys (mean age 14 years, range 6.2-18.5) who had had successful transurethral ablation of PUV between 1982 and 1996, and had completed a follow-up which included serial assessment of serum creatinine, completion of a standard voiding diary, ultrasonography with measurement of urine before and after voiding, a urodynamic examination with simultaneous multichannel recording of pressure, volume and flow relationships during the filling and voiding phases, coupled with video-cystoscopy at least twice. The mean (range) follow-up was 9.3 (6-17) years.

Results: Urodynamic investigation showed myogenic failure with inadequate bladder emptying in 10 patients; five with myogenic failure also had unstable bladder contractions. On video-cystoscopy the posterior bladder neck lip appeared elevated in all patients but in those with myogenic failure it was strongly suggestive of hypertrophy, with evidence of obstruction. At the last follow-up one patient with myogenic failure who had had bladder neck incision and four others who were being treated with alpha-adrenergic antagonists had a significant reduction of their postvoid residual urine.

Conclusion: Despite early valve ablation, a large proportion of boys treated for PUV have gradual detrusor decompensation, which may be caused by secondary bladder neck obstruction leading to obstructive voiding and finally detrusor failure. Surgical or pharmacological intervention to improve bladder neck obstruction may possibly avert this course, but further studies are needed to validate this hypothesis.

Editorial Comment

The authors review their experience treating 18 boys with posterior urethral valves, diagnosed from 1982-1996. Many of the children eventually developed myogenic failure. The authors propose that this is due to secondary bladder neck obstruction.

The observation of progressive myogenic failure in these patients is not new and is increasingly observed as valve patients get older. Clearly this is something that all clinicians should be aware of. The etiology of this is, no doubt, multifactorial, but among the causes is high urine flow and infrequent voiding. The proposal that bladder neck obstruction contributes is intriguing and suggests a potential treatment. However, the data presented are quite limited. Fluro-urodynamic studies are key to the diagnosis and unfortunately no urodynamic data are presented in the paper! The authors present cystoscopic findings, but this condition can not be diagnosed during cystoscopy under anesthesia (or even local anesthesia for that matter). Moreover, the bladder neck musculature is connected to the bladder muscle and it is during bladder contraction that the bladder neck opens. In the case of myogenic bladder decompensation, the bladder neck would not be expected to open. Hence this condition is even more difficult to diagnose once myogenic failure has developed.

Nonetheless, the proposal to consider alpha-adrenergic antagonist therapy in these patients has some merit. Careful documentation of urodynamic function in patients before and after pharmacological intervention would be very interesting. However, this study should be done early on, before myogenic failure. The ultimate would be to demonstrate that years of alpha-adrenergic antagonist therapy prevents myogenic failure, but this will require a large multi-center, long-term study and probably is not realistic.

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