The Deflux experience in Canada generates both optimism and queries

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It was good news for Canadian pediatric urologists and parents of children with vesicoureteral reflux (VUR) when Deflux was approved for use in Canada in 2003. Guerra and colleagues[1] show that, even with up to 2 injections, the success rates are lower than those quoted for open ureteroneocystostomy; however, the minimal invasiveness of this procedure, along with its other benefits, makes it a competitive, if not favourable, alternative. The improvement in success rates after a second injection does justify offering a redo procedure if necessary. Also encouraging is the 80% success rate for salvaging failed open ureteroneocystostomy and the 100% success with neurogenic bladder (NB).

The current success rates justify the pursuit of a routine cystogram postoperatively and show that a nuclear medicine cystogram (NMC) is sufficient. Although the authors argue that, by using NMCs instead of voiding cystourethrograms (VCUGs), they may detect more failed cases than other authors who have used VCUGs, it is possible that the NMC fails to detect reflux that has been downgraded into grade I VUR.[2] Using that same argument, it would be interesting to know whether any or all of the 3 cases that had *de novo* contralateral VUR were studied exclusively by NMCs, because these might have missed occult preoperative contralateral grade I VUR. Although contralateral *de novo* VUR appears to have a benign course, its development is nonetheless disappointing news to parents aiming for a cure. It is hoped that, with time, we will learn which patients are at the highest risk for this and manage them accordingly. Analyses to date suggest that girls under 5 years of age have the highest risk, but in this review, all children had a preoperative VCUG.[3]

I have had patients who have developed symptomatic postoperative hydronephrosis. In my experience, this is more likely to occur in cases of redo procedures (with the initial procedure being an open reimplant or subtrigonal injection [STING]) and when multiple pokes are required to get the desired visual effect. Others have shown that those with NB or voiding dysfunction may be at the highest risk.[4] The authors do not comment on which patients developed postoperative hydronephrosis or on whether multiple injection sites were ever required.

The transient rise in creatinine seen in children with a solitary kidney is interesting and appears to support the early observation of creatinine levels in children with known renal impairment who have a bilateral procedure or a solitary kidney. This is currently done at our centre.

It is unclear whether these authors' observations can be applied to high-grade VUR. The grade of VUR, based on the International Reflux Grading System, which is frequently used to report and thus predict success,[5] is not used in this study because of the frequent and sometimes exclusive use of NMCs. This is a retrospective study; because the authors do not clearly mention whether children with known high-grade VUR were offered this new treatment, it is probably reasonable to assume that many, if not all, of the children did not have high-grade VUR. Therefore, this study should not be used to quote success rates for all children with VUR, nor can it be used to quote success rates for individual grades of VUR, particularly high-grade. However, other authors have reported high enough success rates in high-grade VUR to justify offering an STING in these cases.[5]

The merit of this study is that it reports on the longest series of endoscopic use of Deflux for VUR in Canada, which has thus far shown itself to be a safe, reasonably effective alternative to open ureteroneocystostomy in children with VUR in need of intervention.

Competing interests: None declared.

References

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