New stones develop at the site of 'clinically insignificant residual fragments' in one-fifth of patients

The term 'clinically insignificant residual fragment' (CIRF) was coined to describe the small (≤4 mm) calculi that remain in the kidney or ureter following extracorporeal shockwave lithotripsy (ESWL). These fragments are expected to pass spontaneously. However, several studies have shown that so-called CIRFs can persist and grow to become a significant problem that requires further treatment. The term CIRF, and the management of these fragments, are controversial.

Osman and colleagues in Germany have analyzed questionnaires completed by 173 patients who underwent ESWL for urolithiasis 5 years previously. All patients were discharged with CIRFs.

The questionnaires showed that the CIRFs had passed spontaneously in 78.6% of the patients. These patients had experienced no recurrence during the 5-year follow-up period. However, regrowth of persisting CIRFs had occurred in 21.4% of patients. All these patients had required further treatment.

No correlation was found between measures taken to optimise fragment clearance (including increased fluid intake, weight reduction and medication) and stone regrowth. The authors attributed this to "the special patient-care characteristics in the German health system", explaining that inconsistent treatment modalities made the quality of these measures difficult to assess.

The authors concluded that, with one-fifth of patients discharged with CIRFs requiring further treatment for stone regrowth, close follow-up is required following ESWL.

Original article Osman MM *et al.* (2005) 5-year-follow-up of patients with clinically insignificant residual fragments after extracorporeal shockwave lithotripsy. *Eur Urol* **47:** 860–864

Surgical alternative for voiding dysfunction in spina bifida

A novel surgical procedure for children suffering from neurogenic voiding dysfunction caused by spina bifida was recently reported by a team of researchers based in China and the US. The same team had previously successfully demonstrated the procedure in patients with spinal-cord injury.

Xiao and colleagues carried out a limited laminectomy and lumbar ventral root to S3 ventral root microanastomosis in 20 children (mean age 11 years) with spina bifida and neurogenic bladder. All children were incontinent before surgery. They also undertook a preoperative urodynamic evaluation, which revealed that the patients had one of two types of neurogenic bladder—areflexic, or hyperreflexic with detrusor–external-sphincter dyssynergia. An urodynamic assessment was also carried out after surgery in order to assess the outcomes of the procedure.

The surgical result was an artificial somatic–autonomic reflex pathway, which, in 17 out of 20 patients, led to them gaining acceptable bladder control and continence within 1 year, and in some cases as early as 6 months. Interestingly, the authors found that the 17 children also gained bladder sensory function. Following surgery, 12 of the 14 patients with areflexic bladders showed an increased mean bladder capacity and decreased post-void residual urine, and 5 out of 6 patients with hyperreflexic bladder gained continence.

The authors conclude that the artificial somatic–autonomic reflex pathway procedure is safe and effective, and allows children with spina bifida to gain bladder control and voluntary voiding.

Original article Xiao CG *et al.* (2005) An artificial somatic-autonomic reflex pathway procedure for bladder control in children with spina bifida. *J Urol* **173:** 2112–2116

Sexual abstinence and semen quality

The quality of semen for fertility treatment is of paramount importance. The duration of sexual abstinence before fertility treatment, to ensure maximum semen quality, is an issue commonly discussed between patients and physicians. The WHO recommends abstinence of 2–7 days before semen collection for infertility evaluation, but this is regardless of initial sperm quality. Levitas *et al*. carried out a retrospective study to evaluate the relationship between abstinence and sperm quality, and to determine whether an