

sensitivity and high-grade VUR with >90% sensitivity.

The authors conclude from their study that a high PCT concentration is a “strong and independent predictor of VUR”, and that the use of PCT as a predictive tool could avoid 44% of voiding cystourethrographies carried out in patients without VUR, although prospective multicenter studies would be needed to confirm these results.

**Original article** Leroy S *et al.* (2005) Procalcitonin as a predictor of vesicoureteral reflux in children with a first febrile urinary tract infection. *Pediatrics* 115: e706–e709

### Positive clinical data on 80W laser vaporization of the prostate

A recent study by Bachmann *et al.* has provided welcome clinical data on the safety and efficacy of the 80W high-power potassium-titanyl-phosphate (KTP) laser, a relatively new alternative treatment to transurethral resection for men with lower urinary tract symptoms secondary to benign prostatic hyperplasia.

The researchers carried out KTP laser vaporization of the prostate on 108 patients, and obtained follow-up data at discharge, 3 months, 6 months, and 12 months (105 patients at discharge reducing to 73 patients at 12 months). Follow-up assessment included measurement of both maximum urinary flow rate and postvoid residual volume, and completion of the International Prostate Symptom Score (IPSS) questionnaire.

The vaporization procedure was carried out successfully in all 108 patients, and no intraoperative complications, such as severe bleeding or bladder neck perforation, were observed. The authors found a highly significant increase of 111% in maximum urinary flow rate ( $P < 0.001$ ) at discharge, which at 12 months had risen to 252%. Highly significant rises in postvoid residual volume and IPSS scores were also reported directly following surgery ( $P < 0.001$ ), and were sustained throughout the follow-up period. Additionally, patients reported a low complication rate over the 12 months.

In conclusion, the authors found KTP laser vaporization of the prostate to be a safe and effective surgical treatment for lower urinary

tract symptoms secondary to benign prostatic hyperplasia, and one that is associated with low rates of perioperative and postoperative complications.

**Original article** Bachmann A *et al.* (2005) Photoselective vaporization of the prostate: the basel experience after 108 procedures. *Eur Urol* 47: 798–804

### Emergency extracorporeal shock wave lithotripsy for symptomatic ureteral stones

Results from the first randomized controlled trial assessing the efficacy of emergency extracorporeal shock wave lithotripsy (eESWL) suggest that this therapy might be a viable treatment option for the short-term outcome of symptomatic ureteral stones.

In their recent trial in Belgium, Tombal *et al.* enrolled 100 patients admitted to an emergency room for renal colic caused by a ureteral radiolucent stone. The patients were randomized to medical therapy alone or medical therapy combined with eESWL. In total, 50 patients underwent eESWL, which was performed on a Siemens LITHOSTAR® Multiline within 6 h of admission.

The results showed that 61% of patients in the medical therapy alone arm were stone-free at 48 h; in patients given a combination of medical treatment and eESWL, the percentage increased to 74% ( $P = 0.126$ ). These endpoints, however, rely on the size and location of the stone. In patients with a proximally located stone, more than 5 mm in diameter, eESWL increased the proportion of patients that were stone-free at 48 h by 40%, and increased the percentage of patients discharged at 72 h by 25%. These outcomes were modest for patients with distally located stones.

The authors conclude that eESWL should be recommended for patients with symptomatic proximally located stones, but confirm that medical therapy is a valuable treatment option in patients with small distal stones. Further evaluations are needed to assess the cost-effectiveness of eESWL.

**Original article** Tombal B *et al.* (2005) Prospective randomized evaluation of emergency extracorporeal shock wave lithotripsy (ESWL) on the short-time outcome of symptomatic ureteral stones. *Eur Urol* 47: 855–859