RESEARCH HIGHLIGHTS

STONES Safety of bilateral same-session ureteroscopy

Bilateral ureteroscopy in the same session has previously been reported in a series of small initial studies. Two new large studies now show that bilateral same-session ureteroscopy (BSU) is safe and effective in the treatment of urinary tract stones.

Results from early reports suggested that BSU had a high complication rate and use of the procedure was initially opposed owing to concerns about simultaneous renal damage. However, continual refinment of endoscopic technology has meant that complex procedures can now be successfully carried out.

Justin Watson and colleagues retrospectively examined use of BSU at the Emory University Hospital, USA, over a 9-year period. BSU was performed for a number of indications: urinary tract stones (most common, 75% of cases), urothelial carcinoma, ureteral stricture and other miscellaneous conditions. Of the 95 same-session procedures performed, the majority (93%) were carried out using a flexible ureteroscope and only two failed procedures were reported. The researchers observed that 86% patients were bilaterally stone free during surgery and

64% were bilaterally stone free >1 month after the intervention. Fewer than 10% of patients had postoperative complications, which included pain, pyelonephritis and urosepsis. "BSU can be safely and effectively performed in selected patients, thus decreasing the number of operations required to treat upper urinary tract disease," concludes Watson.

For another study, by researchers at Mansoura University in Egypt, Ahmed El-Hefnawy et al. retrospectively analyzed the effectiveness of BSU over a 5-year period (compared with unilateral ureteroscopy for multiple ureteral stones). BSU (using a semi-rigid ureteroscope) was carried out in 89 patients (178 renal units); 86% of these renal units were stone free after the procedure (compared to the 80% stone-free rate in the unilateral ureteroscopy group). Moreover, 70% of patients were classified as having a successful outcome (that is, free from stones without intraoperative complications). In addition, the safety of BSU was equivalent to that of unilateral ureteroscopy, with low intraoperative complication rates of 6.2% and 6.7%, respectively. El-Hefnawy and colleagues



now plan "to proceed routinely with BSU [in patients with urinary tract stones] unless in cases of proximal ureteral calculi, large stone burden or impacted stones".

The authors of both papers are now planning prospective randomized studies to further confirm the safety and efficacy of BSU for upper urinary tract diseases and to determine which patients might benefit the most from this procedure.

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Original articles Watson, J. M. et al. Same session bilateral ureteroscopy is safe and efficacious. J. Urol. 185, 170-174 (2011) | El-Hefnawy, A. S. et al. Bilateral same-session ureteroscopy for treatment of ureteral calculi: critical analysis of risk factors. Scand. J. Urol. Nephrol. doi:10.3109/00365599.2010.530612