

STONES

Safety guidewire unnecessary during flexible ureteroscopy for routine cases of nephrolithiasis

The use of a safety guidewire during flexible endoscopic procedures in the upper urinary tract was originally intended to help straighten and stabilize the ureter, allow navigation through edematous, narrowed or otherwise defective sections, and facilitate placement of ureteral stents when necessary. Since the advent of ureteroscopy in the late 1980s, however, advances in technology have led to the development of smaller caliber ureteroscopes. In addition, urologists have become increasingly experienced with ureteroscopic procedures, and some now forego the use of the safety wire in routine cases in order to improve visualization and manipulation of the ureteroscope.

Dickstein and colleagues at the Boston University School of Medicine have performed a retrospective chart review to determine the safety and feasibility of dispensing with the guidewire in

patients undergoing flexible ureteroscopy with holmium laser lithotripsy for renal or ureteropelvic junction stones. The analysis included 305 kidneys in 246 consecutive patients (59 cases of bilateral stones) who underwent the procedure between 2003 and 2008. Each case was defined as being either complicated ($n = 35$) or uncomplicated ($n = 270$): complicated cases included those in which concomitant obstructive ureteral stones or an associated encrusted ureteral stent were present, or where access was impeded owing to steinstrasse or staghorn calculi or aberrant anatomy. A safety guidewire was used in all complicated cases, but not in any of the uncomplicated cases.

“No intraoperative complications ... were encountered in any of the cases...”

No intraoperative complications, including loss of access, ureteral perforation or the need for a percutaneous nephrostomy tube, were encountered in any of the cases, either uncomplicated or complicated. The overall follow-up stone-free rate was 88.9%.

The authors conclude that the use of a safety guidewire is not necessary for routine cases of flexible ureteroscopic laser lithotripsy in patients with uncomplicated ureteropelvic junction or renal stones. However, they recommend that a safety wire continue to be used in complicated cases, such as those involving encrusted ureteral stents, ureteral strictures, urinary diversions or concomitant ureteral stones.

Nick Warde

Original article Dickstein, R. J. *et al.* Is a safety wire necessary during routine flexible ureteroscopy? *J. Endourol.* 25, 1589–1592 (2010)