Initial experience and comparative efficacy of the uretron to the ureter stone

Tao Li
Beijing Chao Yang Hospital, China

Objective: Aim of this study is to evaluate the initial clinical efficacy of the uretron during the ureteroscopic lithotripsy, a new ultrasonic lithotripter. Historically, there are not any ultrasound, only intracorporeal lithotriptors have been used to lithotript and remove the ureter stone. Recently, we have a favor to newer dual and combination devices believed by many to be more efficient. The uretron features patented technology to precisely control probe vibration and achieve more efficient output potentially improving efficiency of stone clearance. To date, the clinical efficacy of this new device has yet to be tested relative to alternative state-of-the-art lithotriptors.

Materials & Methods: 39 patients with ureter stones 0.6-2 cm undergoing ureteroscopic lithotripsy were studied. All cases were performed by the same surgeon team, and data were recorded prospectively using the same protocol established for a separate ongoing comparison study designed to assess performance of three separate state-of-the-art lithotriptors (uretron, holmium laser, pneumatic lithotripsy). Bivariate analysis was performed between the uretron cohort and the combined cohort of the alternative state-of-the-art lithotriptors (n=18).

Results: The uretron achieved the higher stone clearance rate (5.9 mm2/min) of any device. It also had less damage in clearance efficiency when used on hard ureter stones. The uretron had a faster clearance rate than the alternative lithotripter cohort (5.9 vs. 3.0 mm2/min; P ¼ .02) with no differences in stone-free rate, secondary clinical complications, or device malfunctions (P>0.05).

Conclusion: The uretron compared to the other method lithotripsy is the alternative state-of-the-art intracorporeal lithotripters with higher stone clearance rates and less damage to the ureter.

Biography
Tao Li has completed his PhD at Capital Medical University in China and worked at Beijing Chao Yang Hospital for 10 years. He has been the Followup of Urological department for five years, who can finish many kinds of endoscopic operation, such as TURP, TURBT, PCNL, Flexible Ureterscopy, Cystoscopy, Laparoscopy and so on. He has finished more than 2500 urodynamic test in Urological department. He has been the first Assistant to take part in Radical Prostatectomy for many times. He completed his Master’s in Molecular Biochemical Technique such as PCR, Weston Blot and q-RTPCR.

taoli646@163.com