

## Comparison of electrocautery versus holmium laser energy source for transurethral ureterocele incision: an outcome analysis from a tertiary care institute

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Transurethral endoscopic incision is an established treatment option for management of obstructing ureterocele. It can be performed using monopolar electrocautery or holmium laser as an energy source. The present study was carried out to evaluate outcomes of transurethral ureterocele incision (TUI) by two different energy sources, i.e., monopolar electrocautery versus holmium laser. A retrospective review of the data of all patients who underwent endoscopic TUI from 2007–2017 was performed. Preoperative clinical, biochemical, and radiological characteristics and operative parameters were reviewed and compared between the two groups. Associated stone in the ureterocele was fragmented using pneumatic lithotripter or Mauermeyer stone punch forceps in the electrocautery group and holmium laser in the laser group. Statistical analysis was performed using IBM SPSS version 21.0. Chi-squared test was used for categorical/dichotomous variables. Unpaired t test was used for continuous variables. Out of total 44 patients, 28 patients had duplex system ureterocele and 16 patients had single system ureterocele. Mean age was  $18.5 \pm 7.4$  years (range 14–26 years). Six patients had associated stones in the ureterocele. Most common presentation was flank pain followed by urinary infections and bladder outlet obstruction. Preoperative vesico-ureteric reflux was seen in 18% patients. Monopolar TUI was performed in 20 patients and laser-TUI in 24 patients. Three patients had associated stone in ureterocele in each group. Fragmentation of stone was successfully done with holmium laser without changing the instrument and with less associated surgical morbidity in the laser group. Postoperative successful decompression was evident in 38 (90%) patients. Renal parenchyma thickness was improved on ultrasound scan and renal scan showed non-obstructed system in all patients at follow-up. Both laser and monopolar incision have similar efficacy in decompressing the ureterocele in long-term follow-up. However, laser has added advantage of stone lithotripsy with the same instruments with lesser morbidity and lower incidence of persistent reflux.

### Biography

Dr Ashish sharma is currently working as Asst Professor at Mahtama Gandhi Medical College and Hospital, Jaipur, India. He is known as one of the best Urologist of India. He has special interest in Laparoscopy urology and Renal Transplant. He has published more than 50 research papers in reputed journals and has been serving as an editorial board member of repute.