



Forgotten and fragmented ureteral j stent with stone formation: combined endoscopic management

Volkan Sen ¹, Halil Ibrahim Bozkurt ¹, Tarik Yonguc ¹, Ozgu Aydogdu ¹, Serkan Yarimoglu ¹, Tansu Degirmenci ¹, Suleyman Minareci ¹

¹ *Izmir Bozyaka Research and Training Hospital Department of Urology, Izmir, Turkey*

ABSTRACT

Objective: Ureteral stents are widely used in endo-urological procedures. However, ureteral stents can be forgotten and cause serious complications, including fragmentation, migration and urosepsis.

There are few reports about forgotten and fragmented ureteral stents with stone formation. We aimed to present this rare case with successful combined endo-urological management.

CASE

A 60 year old male patient presented with right flank pain, hematuria and dysuria. One year earlier he had a story of indwelling ureteral J stent and extracorporeal shock wave lithotripsy (ESWL) for 1 cm right ureteral stone. The patient developed an anal abscess and this diverted his attention from the retained ureteral J stent and stone. Therefore he left out ESWL therapy after two sessions and ureteral J stent was not removed. He had pyuria in his urine test and urine culture revealed *Enterococcus faecalis* infection sensitive to ampicillin. Intravenous urography showed fragmented ureteral J stent to four pieces with stone formation around. One piece of the stent was in bladder, two pieces were in ureter and the last piece was in the lower pole of the kidney. Intravenous antibiotics were given until urine culture was negative. One week later vesical and ureteral fragments were removed by endoscopic cystolithotripsy and ureterolithotripsy. Renal fragment was removed via percutaneous access at the same session. The total operative time was 150 minutes and the estimated blood loss was 100 ml. Postoperative period was uneventful, the percutaneous nephrostomy tube was removed on the postoperative 1st day and the patient was discharged on the postoperative 2nd day.

At the postoperative first month, urine culture was clean and no residual fragments were found.

CONCLUSIONS

Combination of endoscopic methods is minimally invasive, safe and viable treatment option in patients with forgotten and fragmented ureteral stents with stone formation. However patients should be informed in detail about the ureteral stent complications, so that these complications can be prevented.

ARTICLE INFO

ARTICLE INFO Available at: www.brazjurol.com.br/videos/may_june_2015/Sen_602_603video.htm

Int Braz J Urol. 2015; 41 (Video #5): 602-3

Submitted for publication:
October 04, 2014

Accepted after revision:
January 05, 2015

Correspondence address:

Volkan Sen, MD
Izmir Bozyaka Research and Training
Hospital Department of Urology,
Izmir, Turkey
Fax: +90 232 412-3499
E-mail: sen_volkan@yahoo.com.tr

EDITORIAL COMMENT

This video nicely demonstrates a combined endourologic approach for a challenging problem. Stent encrustation increases as time passes. El-Faqih et al. reported that 47.5% of stents removed between 6 weeks and 12 weeks, and 76.3% of stents removed after 12 weeks developed encrustation (1). Forgotten stents that have been left in place over long periods of time can become completely encrusted. These extensively encrusted stents often require multiple procedures for their complete removal (2). Electronic stent registries have been shown to help keep track of previously placed stents (3).

EDITORIAL COMMENT

Despite numerous methods to avoid the “forgotten” ureteral stent including emphasis on adequate counseling and monitoring, retained stents remain a persistent challenge in urology. Removal of these stents risks ureteral injury including intussusception and avulsion. Encrustation and fragmentation create a difficult situation which can be technically challenging, often requiring several surgeries and advanced endourologic skills to avoid prolonged operative

REFERENCES

1. el-Faqih SR, Shamsuddin AB, Chakrabarti A, Atassi R, Kardar AH, Osman MK, et al. Polyurethane internal ureteral stents in treatment of stone patients: morbidity related to indwelling times. *J Urol*. 1991;146:1487-91.
2. Lam JS, Gupta M. Tips and tricks for the management of retained ureteral stents. *J Endourol*. 2002;16:733-41.
3. Ather MH, Talati J, Biyabani R. Physician responsibility for removal of implants: the case for a computerized program for tracking overdue double-J stents. *Tech Urol*. 2000;6:189-92.

Hubert S Swana, MD
Nemours Children’s Hospital, Orlando
13535 Nemours Parkway
Orlando, Florida 32827, USA
Fax: + 1 407 650-7266
E-mail: hswana@nemours.org

times and/or complications. This video highlights the combined retrograde endoscopic and percutaneous nephroscopic treatment for a fragmented and calcified stent. It demonstrates that, with adequate preoperative planning, encrusted and fragmented ureteral stents can be safely removed in stepwise fashion in a single procedure.

David J. Hernandez, MD
Director, USF Urology Clinic South
Urologic Malignancies, Robotic Surgery, BPH & Urolithiasis
Chief of Urology, Tampa General Hospital
2 Tampa General Circle, STC 6th floor
Tampa, FL 33606, USA
Fax: +1 813 259-8645
E-mail: dhernan3@health.usf.edu