

## One step treatment of forgotten ureteral stents

Yakup Bostanci · Ender Ozden ·  
Yarkin Kamil Yakupoglu · Saban Sarikaya

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Dear Editor,

We read with great interest the study report by Sancaktutar et al. [1] on the treatment of forgotten ureteral stents (FUSs). This study stimulated our interest because there is no data in the literature regarding the cost of delayed removal FUSs. Although the authors attempted to present costs of stent extraction so as to distract the attentions of the urologists, we would like to add some additional comments and suggestions in addition to the authors' discussion, which is noteworthy in several respects.

Clearly, there is no consensus on which method is the best for managing FUSs efficiently. Successful treatment of encrusted ureteral stents requires careful planning and a multimodal endourologic approach. Very often, their management necessitates combined endourologic approaches or rarely open surgery [2].

In this article, the authors describe that they performed a single session of extracorporeal shock wave lithotripsy (SWL) in all the patients apart from one pregnant patient as a first step treatment, which was aimed at kinked segments of the FUS. But after a single session of SWL, only six FUSs could be removed cystoscopically in patients with no encrustation as detected in kidney ureter bladder (KUB) graphy. An average interventions applied for 27 patients were 2.6. Estimated treatment cost was 6.9-fold (1.8- to 21-fold) higher than an average timely stent extraction.

Increased interventions are usually accomplished under recurrent anesthetic procedures that may increase the rates

of morbidity, and prolong hospital stay and higher treatment costs for the extraction of FUSs. SWL has been proposed by several authors for the management of encrustations because of its noninvasive nature. However, SWL is indicated only for localized, low-volume encrustations in kidneys that have reasonably good function to allow spontaneous clearance of fragments [3].

If there are no encrustations visible on plainfilm radiography, our first approach is cystoscopic removal using a grasping forceps under local anesthesia with fluoroscopic guidance [2]. It is important to avoid significant traction on the stent which can lead to ureteral trauma, ureteral avulsion, or stent fracture and fragmentation [4]. If the stent does not uncoil, the procedure is abandoned. With this maneuver, rates of morbidity, hospital stay, and financial burden will be decreased in the suitable patient group.

A main element of the therapeutic strategy is to decrease the number of interventions. Combined endourologic techniques can achieve successful and safe management of forgotten stents, but treatment should be tailored to the volume of encrustation and associated stone burden [2]. Financial burden of the treatments increase in parallel with the duration of the stent retention and the number of intervention. Although, endourological management of these stents achieves success in majority of the cases with minimal complications, the best treatment remains prevention.

**Conflict of interest** The author(s) indicated no potential conflicts of interest.

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Y. Bostanci (✉) · E. Ozden · Y. K. Yakupoglu · S. Sarikaya  
Department of Urology, Faculty of Medicine,  
Ondokuz Mayıs University, Kurupelit,  
55139 Samsun, Turkey  
e-mail: dryakupbostan@yahoo.com

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