



# Laparoscopic Pyelolithotomy for treating urolithiasis in ectopic pelvic kidneys

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## ABSTRACT

**Introduction:** The management of urolithiasis ectopic pelvic kidneys (EPK) can be challenging because of the aberrant anatomy (1-4). We demonstrate the step-by-step technique of the laparoscopic approach for treating urolithiasis in EPK. **Patients and methods:** Three men with EPK (2 left, 1 right) underwent laparoscopic pyelolithotomy through a transperitoneal approach. After establishing the pneumoperitoneum, the parietal peritoneum was opened at the parietal colic sulcus and the bowel displaced medially. The kidney was identified in the retroperitoneum and the renal pelvis exposed after removal of the perirenal adipose tissue. The renal pelvis was opened, and the stones were identified and retrieved with forceps in 2 cases and with a flexible nephroscope in 1 case. The renal pelvis was closed with a 3/0 running barbed suture. A DJ stent was placed in all patients.

**Results:** For the first time, a laparoscopic technique for treating stones in the ectopic kidney is demonstrated in detail. Mean patient age was 52.6 years (44-58). The mean stone size was 22.3 mm (20-24 mm). Stones were in the renal pelvis in 2 cases and in the inferior calyx in 1 case. Mean operative time was 146 minutes (135-155 min). Mean estimated blood loss was 116 ml (60-140 ml). No complications were observed. The mean hospital stay was 3 days. The DJ stents were removed after 3 weeks. All patients were stone free at the postoperative CT scan with a mean follow-up of 3.3 months (1-6 months).

**Conclusions:** Laparoscopic pyelolithotomy can be an effective and reproducible minimally invasive technique for treating urolithiasis in EPK.

## CONFLICT OF INTEREST

None declared.

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Submitted for publication:  
April 05, 2023

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Accepted after revision:  
April 12, 2023

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Published as Ahead of Print:  
June 15, 2023

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## ARTICLE INFO

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Available at: [http://www.int brazjurol.com.br/video-section/20230148\\_goumas\\_et\\_al](http://www.int brazjurol.com.br/video-section/20230148_goumas_et_al)  
*Int Braz J Urol.* 2023; 49 (Video #11): 646-7