

BÖLÜM 8



ÜRİNER SİSTEM TAŞ HASTALIĞI CERRAHİ TEDAVİSİNDE MINİMAL İNVAZİV YAKLAŞIMLAR III: LAPAROSkopİK VE ROBOTİK PROSEDÜRLER

Erkan ÖLÇÜCÜOĞLU¹

Erdem SOBACI²

GİRİŞ

Üriner sistem taş hastalığında milattan öncesi dönemden günümüze kadar birçok tedavi seçeneği kullanılmıştır. Son 30 yıldaki teknolojik gelişimlerle birlikte açık cerrahinin yerini minimal invaziv cerrahiler almıştır. Bu yaklaşımın başında Extracorporeal Shock Wave Lithotripsi (ESWL), üreteroskopik litotripsi (URS), perkütan nefrolitotripsi (PNL) ve laparoskopik yaklaşımlar gelmektedir. Günümüzde üriner sistem taşlarının cerrahi tedavisinde açık cerrahi oranı % 1 düzeyine düşmüştür (1). Daha önceleri açık cerrahi ile çıkarılan büyük (>2 cm) üriner sistem taşları laparoskopik olarak da başarılı ve güvenli şekilde çıkarılmaktadır. Laparoskopik yaklaşım açık cerrahiye göre daha iyi kozmetik görünüm, daha az analjezi gereksinimi, daha kısa süre hospitalizasyon ve daha az iş gücü kaybı gibi avantajlara sahip iken belirli süre öğrenim ve ciddi tecrübe gerektirmektedir.

Avrupa Üroloji Birliğinin (EAU) 2022 kılavuzunda güçlü düzeyde önerdiği gibi üriner sistem taş cerrahi tedavisinde büyük böbrek taşlarında laparoskopik ve robotik cerrahi, endourolojik girişimlerin ve ESWL'nin teknik olarak yetersiz kaldığı durumlarda veya ek böbrek anomalilerinin ve patolojilerinin olduğu du-

¹ Doç. Dr., Ankara Bilkent Şehir Hastanesi Üroloji Kliniği, erkanolcucuoglu@gmail.com

² Uzm. Dr., Zile Devlet Hastanesi Üroloji Kliniği, erdemsobacı@gmail.com

KAYNAKLAR

1. Honeck P, Wendt-Nordahl G, Krombach P, Bach T, Häcker A, Alken P, et al. Does open stone surgery still play a role in the treatment of urolithiasis? Data of a primary urolithiasis center. *Journal of Endourology*. 2009;23(7):1209-12.
2. Al-Hunayan A, Abdulhalim H, El-Bakry E, Hassabo M, Kehinde EO. Laparoscopic pyelolithotomy: is the retroperitoneal route a better approach? *International journal of urology*. 2009;16(2):181-6.
3. Hemal A, Goel A, Kumar M, Gupta N. Evaluation of laparoscopic retroperitoneal surgery in urinary stone disease. *Journal of endourology*. 2001;15(7):701-5.
4. Türk I, Deger S, Roigas J, Fahlenkamp D, Schönberger B, Loening S. Laparoscopic ureterolithotomy. *Techniques in urology*. 1998;4(1):29-34.
5. Gaur D, Trivedi S, Prabhudesai M, Gopichand M. Retroperitoneal laparoscopic pyelolithotomy for staghorn stones. *Journal of Laparoendoscopic & Advanced Surgical Techniques*. 2002;12(4):299-303.
6. Skolarikos A NA, Petrik A, et al. EAU Guidelines on Urolithiasis. European Association of Urology. 2022.
7. Kaouk JH, Gill IS, Desai MM, Banks KL, Raja SS, Skacel M, et al. Laparoscopic anatomic nephrolithotomy: feasibility study in a chronic porcine model. *The Journal of urology*. 2003;169(2):691-6.
8. Giedelman C, Arriaga J, Carmona O, de Andrade R, Banda E, Lopez R, et al. Laparoscopic anatomic nephrolithotomy: developments of the technique in the era of minimally invasive surgery. *Journal of endourology*. 2012;26(5):444-50.
9. Aminsharifi A, Irani D, Masoumi M, Goshtasbi B, Aminsharifi A, Mohamadian R. The management of large staghorn renal stones by percutaneous versus laparoscopic versus open nephrolithotomy: a comparative analysis of clinical efficacy and functional outcome. *Urolithiasis*. 2016;44(6):551-7.
10. Mao T, Wei N, Yu J, Lu Y. Efficacy and safety of laparoscopic pyelolithotomy versus percutaneous nephrolithotomy for treatment of large renal stones: a meta-analysis. *Journal of International Medical Research*. 2021;49(1):0300060520983136.
11. An L, Xiong L, Chen L, Ye X, Huang X. Concomitant Treatment of Ureteropelvic Junction Obstruction Complicated by Renal Calculi with Laparoscopic Pyeloplasty and Pyelolithotomy via 19.5 F Rigid Nephroscope: A Report of 12 Cases. *Journal of Investigative Surgery*. 2022;35(1):77-82.
12. Mantica G, Balzarini F, Chierigo F, Keller EX, Talso M, Emiliani E, et al. The fight between PCNL, laparoscopic and robotic pyelolithotomy: do we have a winner? A systematic review and meta-analysis. *Minerva Urology and Nephrology*. 2022.
13. Duarsa GWK, Tirtayasa PMW, Pramana IBP, Yudiana IW, Santosa KB, Oka AAG. Meta-Analysis of Laparoscopic Pyelolithotomy versus Percutaneous Nephrolithotomy as a Treatment of Large Kidney Stones. *Open Access Macedonian Journal of Medical Sciences*. 2022;10(F):113-21.
14. Xu Q, Wang P, Qin J, Wang S, Xia D, Zhan J, et al. Comparative Analysis of Robot As-

- sisted Laparoscopy and Laparoscopic Pyeloplasty in the Treatment of Ureteropelvic Junction Obstruction. *Frontiers in Medical Science Research.* 2022;4(1).
15. Huang Z, Yang T, Shao L, Yang B, Wang G, Li P, et al. Comparison of Transperitoneal and Retroperitoneal Laparoscopic Ureterolithotomy: A Meta-Analysis. *Urologia Internationalis.* 2022;1-7.
16. Wang X, Li S, Liu T, Guo Y, Yang Z. Laparoscopic pyelolithotomy compared to percutaneous nephrolithotomy as surgical management for large renal pelvic calculi: a meta-analysis. *The Journal of urology.* 2013;190(3):888-93.
17. Ölçücioğlu E, Çamtosun A, Biçer S, Bayraktar AM. Laparoscopic pyelolithotomy in a horseshoe kidney. *Turkish journal of urology.* 2014;40(4):240.
18. Ganpule AP, Prashant J, Desai MR. Laparoscopic and robot-assisted surgery in the management of urinary lithiasis. *Arab Journal of Urology.* 2012;10(1):32-9.
19. Jiang K, Tang K, Xu H, Chen H, Chen Z. Retroperitoneoscopy technique-assisted percutaneous nephrolithotomy for complexity horseshoe kidney with renal stones. *Urologia Internationalis.* 2016;97(3):285-91.
20. Olcucuoglu E, Olcucu MT, Tonyali S, Olcucuoglu E, Odabas O. Laparoscopic pyelolithotomy/ureterolithotomy combined with flexible ureterorenoscopy for upper urinary tract stones especially in anomalous kidneys. *Annals of Medical Research.* 2020;27(10):2775-9.
21. Gaur D, Trivedi S, Prabhudesai MR, Madhusudhana H, Gopichand M. Laparoscopic ureterolithotomy: technical considerations and long-term follow-up. *BJU international.* 2002;89(4):339-43.
22. Jia B, Liu J, Hu B, Chen Z. Using retroperitoneal laparoscopic ureterolithotomy in the treatment of impacted upper ureteric calculi. *Translational Andrology and Urology.* 2022;11(1):104.
23. Khalil M, Omar R, Abdel-Baky S, Mohey A, Sebaey A. Laparoscopic ureterolithotomy; which is better: Transperitoneal or retroperitoneal approach? *Turkish Journal of Urology.* 2015;41(4):185.
24. Mandhani A, Kapoor R. Laparoscopic ureterolithotomy for lower ureteric stones: Steps to make it a simple procedure. *Indian Journal of Urology: IJU: Journal of the Urological Society of India.* 2009;25(1):140.
25. Müller PF, Schlager D, Hein S, Bach C, Miernik A, Schoeb DS. Robotic stone surgery—Current state and future prospects: A systematic review. *Arab journal of urology.* 2018;16(3):357-64.