

## Laparoendoscopic Single-Site (LESS) Nephrectomy in a Patient Undergoing Continuous Ambulatory Peritoneal Dialysis (CAPD)

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### ABSTRACT

*Purpose:* To assess the feasibility, safety, and outcomes of transumbilical single port laparoscopic nephrectomy in a patient undergoing continuous ambulatory peritoneal dialysis (CAPD) treatment.

*Materials and Methods:* A patient was a 62-year-old woman who had been using CAPD for 4 months because of end-stage renal disease (ESRD) secondary to diabetic nephropathy. She was referred to the urology clinic, due to suffering from the left pyonephrosis and non-functioning kidney with a proximal ureteric stone. Then she underwent percutaneous nephrostomy to drain the pus. After this resolved, she underwent LESS nephrectomy. Medical records were reviewed, and laboratory values and outcomes were analyzed.

*Results:* The procedure was successfully completed without conversion to conventional laparoscopic or open surgery. Operative time was 160 minutes. Moreover, the specimen can be easily and rapidly extracted through the TriPort without the use of an additional entrapment bag. Estimated blood loss was 200 mL and pain scale was 0-1, with no morphine requirements. On the same day of the operative procedure, a double-lumen hemodialysis (HD) catheter was introduced for postoperative HD. The patient underwent hemodialysis treatment via a subclavian catheter after the operation and she was discharged home on the sixth postoperative day with a functioning CAPD catheter, with no further problems. After 2 weeks, the patient switched from HD to CAPD without complications. Pathological analysis revealed chronic pyelonephritis. Postoperative hematocrit, blood urea nitrogen, and creatinine were 39.3%, 22 mg/dL, 2.3 mg/dL respectively. The scars receded into the umbilicus and were hardly visible.

*Conclusion:* LESS nephrectomy is a feasible technique with advantages of less pain, shortened convalescence, improved cosmesis, and absence of wound complications.

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*Available at: [www.brazjurol.com.br/videos/november\\_december\\_2010/Permpongkosol\\_781\\_782video.htm](http://www.brazjurol.com.br/videos/november_december_2010/Permpongkosol_781_782video.htm)*

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## EDITORIAL COMMENT

In this video entitled “Laparoscopic Single-Site Nephrectomy in a Patient Undergoing Continuous Ambulatory Peritoneal Dialysis (CAPD)”, the authors present a very nice application of single-site surgery. The abstract is well-written and the video provides a nice stepwise description on how this novel surgical procedure can be performed safely and effectively. Single site surgery in appropriately selected cases offers the potential of excellent surgical outcome, quick recovery, minimal post-operative pain, and high patient satisfaction. However, as many

of the evolving technologies in surgery, surgical skill and appropriate selection criteria remain the essential parameters predicting a patient’s expected peri-operative outcome. As we continually raise the bar in minimally invasive surgical technologies, we can never lose sight on these important clinical considerations.

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