invasive and cost-effective, that we may achieve improved quality of life without compromising the patient's disease outcomes. A recent study compared overall costs among open, laparoscopic and robotic partial nephrectomies in both obese and non-obese patients. The authors concluded that laparoscopic partial nephrectomy was less costly than open technique because of shorter length of stay, and though laparoscopic length of stay was longer than robotic, the cost of instrumentation made robotic more expensive than laparoscopic. We acknowledge that this study was a retrospective analysis and our patient population was non-randomized.

We concluded that in obese patients, the laparoscopic and robotic partial nephrectomy patients have less blood loss than open partial nephrectomy. Furthermore, length of stay was not related to the type of utilized surgical procedure.

REFERENCES


Commentary

A comparative study of open, laparoscopic and robotic partial nephrectomy in obese patients

As the prevalence of obesity and metabolic syndrome continues to rise, more obese patients are being considered for minimally invasive surgery. For novice surgeons, obesity can be considered a relative contraindication to laparoscopy, as excess adipose tissue can hinder the procedure by significantly modifying the perception of anatomy and reducing the effective operative field. Obesity also portends a risk factors for renal cell carcinoma. Partial nephrectomy is proven to provide equivalent oncological control to radical nephrectomy. In recent times, partial nephrectomy was adopted as the standard of care for renal masses that are <4 cm in diameter, and some tumors that are between 4 and 7 cm in diameter. Laparoscopic partial nephrectomy (LPN) has been shown to be equivalent oncologically to open partial nephrectomy with some centers demonstrating lower blood loss and length of hospital stay after surgery. The advanced laparoscopic skills required by LPN to accomplish tasks of tumor resection and renal reconstruction using intracorporeal suturing prevented the widespread application of the technique. Warm ischemia time in LPN exceeded, in many instances, the acceptable maximum limit of 30 min even in the hand of experts. Since the introduction of first robotic partial nephrectomy by Gettman et al. in 2004, the robotic technique was popularized. Early studies of robotic partial nephrectomy failed to find tangible advantages to a robot-assisted approach and was even criticized for incurring more cost to the procedure. However, over the past 5 years, several refinements to the technique have been introduced, and subsequently robotic partial nephrectomy has become a reasonable alternative to laparoscopic and open.
nephron-sparing techniques. This is, to the best of our knowledge, the first study that compares between the outcomes of the three technique of partial nephrectomy, the open, the laparoscopic and robotic in obese patient population.

Mohamad W. Salkini
Division of Urology, West Virginia University, Morgantown, WV 26506, USA

Address for correspondence:
Dr. Mohamad W. Salkini,
West Virginia University, Morgantown, WV 26506, USA.
E-mail: mhdsalkini@yahoo.com

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