

ENDOUROLOGY & LAPAROSCOPY

Laparoscopic ureterolysis and omental wrapping

Simone G, Leonardo C, Papalia R, Guaglianone S, Gallucci M

Department of Urology, Regina Elena Cancer Institute, Rome, Italy

Urology. 2008; 72: 853-8

Objectives: To describe our laparoscopic technique of ureterolysis and omental wrapping using the LigaSure device for the treatment of idiopathic retroperitoneal fibrosis.

Methods: Four bilateral laparoscopic ureterolyses (LUs) and two unilateral LUs were performed in 6 male patients (mean age 47 years). Of the 6 patients, 4 underwent LU without having undergone medical therapy before surgery and 2 underwent LU after medical therapy failure. All had had ureteral stents placed before surgery. The ureters were completely freed from the fibrotic tissue using an Overholt laparoscopic forceps and 10-mm LigaSure atlas. An omental wrap was passed behind the colonic flexure, placed around the ureter, and fixed to the psoas muscle.

Results: The mean operating time was 80 minutes (range 75 and 85) for the unilateral LUs and 200 minutes (range 180-225) for the bilateral procedures. The mean blood loss was 75 mL (range 50 and 100) during LUs and 150 mL (range 80-220) during bilateral LUs. The mean hospital stay was 3.33 days (range 2-5). All indwelling ureteral stents were removed at 4 weeks postoperatively. At a mean follow-up of 37.5 months (range 23-59), all patients were free of symptom and all renal units were unobstructed.

Conclusions: In our experience of LUs and omental wrapping, the reproduction of each step of open surgery seems to offer excellent midterm outcomes. The use of the LigaSure simplified the laparoscopic procedure and made it feasible and safe. We believe that the minimally invasive nature and high effectiveness of LU suggest consideration of this procedure as first-line treatment of idiopathic retroperitoneal fibrosis.

Editorial Comment

The management of retroperitoneal idiopathic fibrosis has evolved from complex open surgery to medical therapy with reasonable success rates and the more conservative management for unfit patients for surgery or patients that did not want to undergo through a long recovery with open surgery may simply have ureteral stents placed and changed them sporadically.

As in our experience, and the authors the Laparoscopic approach appears to be as effective as open surgery but medical therapy may offer a success rate of 50%-80%, with probably a lower effectiveness in patients with severe disease. Longer follow-up is necessary but this is another small series that laparoscopic approach may be as effective as open surgery.

Dr. Fernando J. Kim

Chief of Urology, Denver Health Med Ctr

Assistant Professor, Univ Colorado Health Sci Ctr

Denver, Colorado, USA

E-mail: fernando.kim@uchsc.edu

Artery-only occlusion may provide superior renal preservation during laparoscopic partial nephrectomy

Gong EM, Zorn KC, Orvieto MA, Lucioni A, Msezane LP, Shalhav AL

Section of Urology, Department of Surgery, University of Chicago, Chicago, IL, USA

Urology. 2008; 72: 843-6

Objectives: Artery-only occlusion (AO) has been used during nephron-sparing surgery to reduce ischemic damage. However, this has not been demonstrated in laparoscopic partial nephrectomy (LPN). We compared our experience with AO and both artery and vein occlusion (AV) in LPN to optimize the method of ischemia.

Methods: This retrospective case-control study identified 25 patients who underwent AO during LPN and matched them to a cohort of 53 patients who underwent LPN with AV. The groups were compared for ischemia time, blood loss, transfusion rate, and renal function.

Results: The 2 cohorts were comparable on demographic data. Blood loss was similar, with AO and AV demonstrating equivalent transfusion rates. The 2 cohorts had similar warm ischemia times. Positive margin rate was not affected by venous backflow in the AO cohort (0% AO vs 1.9% AV, $P = .679$). No significant postoperative change in creatinine (Cr) or creatinine clearance (CrCl) was seen for AO; however, a significant change in Cr and CrCl was seen in AV.

Conclusions: AO during LPN does not lead to a greater blood loss or an increased warm ischemia time. The benefit of AO on renal function is significant and requires further investigation.

Editorial Comment

Laparoscopic partial nephrectomy has evolved due to better laparoscopic instruments, high volume surgeons and institutions. Renal warm-Ischemia reperfusion injury remains a very controversial and complex issue without many answers. From optimal ischemia time to ameliorate injury to ideal temperature for renal cooling to preserve renal function are still big question marks. The idea of arterial clamping only allowing venous back flow leakage may cause less visualization and more bleeding but protective mechanism for warm-Ischemia reperfusion injury may be related to the possibility of leakage of adhesion molecules or oxygen radical scavengers that may cause protection but these issues need future investigation.

Dr. Fernando J. Kim

*Chief of Urology, Denver Health Med Ctr
Assistant Professor, Univ Colorado Health Sci Ctr
Denver, Colorado, USA
E-mail: fernando.kim@uchsc.edu*

IMAGING

Utility of PET/CT in differentiating benign from malignant adrenal nodules in patients with cancer

Vikram R, Yeung HD, Macapinlac HA, Iyer RB

Department of Diagnostic Radiology, The University of Texas M.D. Anderson Cancer Center, Houston, TX, USA

AJR Am J Roentgenol. 2008; 191: 1545-51

Objective: The purpose of this retrospective study was to determine the sensitivity and specificity of combined PET/CT in differentiating benign from malignant adrenal nodules measuring at least 1 cm in diameter in patients with cancer.