

Editorial Comment

Laparoscopic Ureterolysis and Omental Wrapping - *UROLOGY* 72: 853– 858, 2008

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ABSTRACT

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 authors showed their experience with laparoscopic ureterolysis and omental wrapping for treating idiopathic retroperitoneal fibrosis. They supported the use of the Ligasure device in order to simplify the procedure with excellent outcomes. It is important to point out some technical considerations:

- An ureteral stent was used in all cases to facilitate the identification of the ureter;
 - The omental flap was isolated before the ureteral dissection was performed;
 - After the ureteral wrapping was complete the package was fixed into the psoas muscle
- After a mean follow-up of 3yrs all patients were clinically well with no sign of ureteral obstruction. Although no prospective, randomized trial have been performed, the laparoscopic approach can be considered the standard of care approach for the surgical treatment of retroperitoneal fibrosis.

Laboratory Evaluation of Laparoscopic Vascular Clamps Using a Load-Cell Device - Are All Clamps the Same? - *Journal of Urology* 180: 1267 – 1272, 2008

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ABSTRACT

Purpose: The use of effective vascular clamps is key to successful laparoscopic partial nephrectomy. Based on our clinical experience the occlusive capabilities of vascular clamps appeared to be quite variable. We compared the occlusive force of currently available laparoscopic vascular clamps.

Materials and Methods: The jaw force of 3 laparoscopic vascular clamps (Aesculap®, Klein Surgical Systems, San Antonio, Texas and Karl Storz™) were measured by clamping a 2.2 mm compression load cell (Interface Advanced Force Measurement, Scottsdale, Arizona) in pound-force. The variables tested were handheld Satinsky, DeBakey

and Storz clamps vs bulldog clamps, proximal, middle and distal application position, new vs used bulldog clamps and new vs used Satinsky handheld clamps. In addition, handheld clamps were tested according to the force generated by the notches in the locking mechanism. Force retention was also determined for all instruments after clamping a 20Fr latex rubber catheter for an hour. Finally, leak pressure studies were performed using a harvested porcine artery to determine the relationship between jaw force and leak pressure in mm Hg of bulldog and Satinsky handheld clamps using a pressure gauge (Cole-Parmer®). Results: Handheld vascular clamps provided greater force than bulldog clamps. The proximal position closest to the hinge provided the greatest force across all instruments. Compared to new clamps the 2-year-old Klein Surgical Systems bulldog clamps showed a greater than 40% decrease in jaw force at all positions, whereas the 3-year-old Aesculap bulldog clamps decreased in jaw force by less than 9% at all positions. The 2-year-old Satinsky handheld clamps showed a decrease of 20%, 9% and 0% at the distal, middle and proximal jaw positions, respectively. Also, there was a positive correlation between force and the number of notches applied in handheld clamps. In addition, all instruments maintained jaw force after 1 hour of continuous clamping. Finally, leak pressure studies performed with used clamps showed that Klein Surgical Systems bulldog, Aesculap bulldog and

Satinsky handheld clamps leaked at a pressure of 153 to 223, 465 to 795 and 1,500 to 2,600 mm Hg, respectively.

Conclusions: Vascular clamps have varying occlusive forces according to clamp type, manufacturer, jaw and teeth characteristics, jaw clamping position and duration of use. However, across all clamps the jaw force was greatest at the proximal position. This is most important when applying laparoscopic bulldog clamps. In contrast, all handheld vascular clamps generated higher force than intracorporeal bulldog clamps. At 1 notch the handheld vascular clamps provided supraphysiological occlusion force regardless of position or manufacturer.

Editorial Comment:

The authors compared the occlusive force of several clamps used during laparoscopic partial nephrectomy. The handheld clamps presented higher occlusive force compared with the bulldog clamps and all the clamps showed the highest occlusive force on its proximal end and had significant decreased efficacy with time of use. Every surgeon has a instrument preference when performing hilum clamping during LPN, with some different techniques available for both bulldog and handheld, and this study allow us to better understand the mechanism of action of these instruments and how to use them in order to get a dryer operative field for a clear renal reconstruction.

Analysis of Survival after Laparoscopic Management of Endometrial Cancer - J Minim Invasive Gynecol. 2008 Mar-Apr;15(2):181-7

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ABSTRACT

STUDY OBJECTIVE: To assess the effect of laparoscopic surgery on the survival of women with early-stage endometrial cancer and to analyze the factors that affect survival. **DESIGN:** Retrospective cohort study (Canadian Task Force classification II-2). **SETTING:** Tertiary teaching hospital. **PATIENTS:** Women with clinical stage I and II endometrial cancer (International Federation of Gynecology and Obstetrics staging, 1971) from January 1993 through June 2003. **INTERVENTION:** Demographic, surgical, perioperative, and pathologic characteristics of women treated with laparoscopy or laparotomy were compared by use of Fisher's exact test or the Student

t test. Recurrence-free and overall survival was calculated by use of the Kaplan-Meier method. Stratified analyses were performed with the log-rank test for factors affecting survival (surgical stage, histologic study, and grade). **MEASUREMENTS AND MAIN RESULTS:** Sixty-seven and 127 women were treated with laparoscopy and laparotomy, respectively. Median follow-up was 36.3 months for the laparoscopy group and 29.6 months for the laparotomy group. The complication rates in the 2 groups were comparable. Women undergoing laparoscopy had shorter hospital stay and less morbidity related to infection. The 2- and 5-year estimated recurrence-free survival rates for the

laparoscopy and laparotomy groups (93 % vs 91.7% and 88.5% vs 85%, respectively), as well as the overall 2- and 5-year survival rates (100% vs 99.2% and 100% vs 97%, respectively) were similar. **CONCLUSIONS:** Laparoscopic surgery in women with early-stage endometrial carcinoma resulted in survival rates similar to laparotomy, although a small sample size precludes definitive conclusions. A larger randomized comparison of the 2 techniques is needed to validate these findings.

Editorial Comments:

Although the application of laparoscopic surgery for gynecologic malignancies has increased over the last years, laparotomy remains the standard treatment

at most centers around the world. This study on the type of surgeries for early-stage endometrial carcinoma corroborated the advantages of laparoscopy over laparotomy (lower complication rate, less blood loss, lower transfusion rate, fewer cases of tromboembolism, fever, ileus and wound complications, and a shorter hospital stay) associated with similar survival rates up to 5 years postoperative. However, limitations arise from its retrospective design, with small number of participants. Besides, as the conclusive test of the adequacy of an oncologic procedure is overall survival, a larger prospective randomized comparison of the 2 surgical approaches is really important to definitively validate these findings.

Laparoscopic Total Radical Hysterectomy by the Pune Technique: Our Experience of 248 Cases - J Minim Invasive Gynecol. 2007 Nov-Dec;14(6):682-9.

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ABSTRACT

STUDY OBJECTIVE: To describe our experience and technique of total laparoscopic radical hysterectomy with pelvic lymphadenectomy, which is the largest single- institution study. **DESIGN:** Retrospective, nonrandomized study (Canadian Task Force classification II-2). **SETTING:** Private hospital. **PATIENTS:** Two hundred forty-eight patients with International Federation of Gynecology and Obstetrics stage IA2 (n = 32) and IB1 (n = 216) of cancer of the cervix. **INTERVENTION:** Total laparoscopic type III radical hysterectomy with bilateral pelvic lymphadenectomy was done. Simple repetitive steps were used to perform this surgery and develop an easily replicable technique. Harmonic Shears, bipolar coagulation, and vascular clips were used. Resection of the cardinal and uterosacral ligaments was performed with LigaSure (LigaSure Vessel Sealing System; Valleylab, Tyco Healthcare, Boulder, CO) or the Harmonic Shears (Ethicon Endo-Surgery, Inc., Cincinnati, OH). Pelvic lymph node dissection was done. **MEASUREMENTS AND MAIN RESULTS:** Histopathologically, there were 183 (73%) cases of squamous carcinoma, 52 (20%) adenocarcinomas, and 13 (5%) adenosquamous carcinomas. Four patients needing anterior exenteration because of bladder involvement were excluded from data analyses. The operation was performed entirely by laparoscopy in

all patients and by the same surgical team. The patients' median age was 61 years. The median operative time was 92 minutes (range 65-120 minutes). The median number of resected pelvic nodes was 18. The median blood loss was 165 mL. The median length of stay was 3 days. All 15 intraoperative complications were tackled laparoscopically. No patients were converted to the open technique. There were no deaths in our series. Seventeen patients had complications within 2 months of surgery. Seven patients had recurrences after a median follow-up of 36 months. **CONCLUSION:** Our technique of total laparoscopic radical hysterectomy, developed over 248 cases, can be performed safely. It is an easily replicable technique. This procedure reduces the morbidity associated with abdominal radical hysterectomy. All of the complications can also be tackled laparoscopically, which does not further add to the morbidity.

Editorial Comments:

Laparoscopic radical hysterectomy for patients with cervical cancer was initially considered time consuming and of questionable radicality. However, better results have been achieved and complications have decreased with time, repetition, experience, and progression of the learning curve. Some reports of the technically safe and feasible methods for this kind

of surgery have been published, and the main advantages of this minimally invasive approach would be less morbidity and faster recovery, making it possible for the patient to return to work and start adjuvant therapy earlier. This is a retrospective study that describes the steps of a standardized technique of laparoscopic radical hysterectomy performed by

the same surgical team along the years, confirming its feasibility and reproducibility. Regarding the oncologic principles, they were comparable to open surgery in terms of margins, lymph node clearance, and parametric resection, with less postoperative complications and lower morbidity than the abdominal approach.