Editorial Comment

Laparoscopic Myomectomy: Do Size, Number, and Location of the Myomas Form Limiting Factors for Laparoscopic Myomectomy? - Journal of Minimally Invasive Gynecology (2008) 15, 292–300
Rakesh Sinha, Aparna Hegde, Chaitali Mahajan, Nandita Dubey, Meenakshi Sundaram

ABSTRACT
Objective: To assess whether it is possible for an experienced laparoscopic surgeon to perform efficient laparoscopic myomectomy regardless of the size, number, and location of the myomas. Design: Prospective observational study (Canadian Task Force classification II-1). Patients: A total of 505 healthy nonpregnant women with symptomatic myomas underwent laparoscopic myomectomy at our center. No exclusion criteria were based on the size, number, or location of myomas. Interventions: Laparoscopic myomectomy and modifications of the technique: enucleation of the myoma by morcellation while it is still attached to the uterus with and without earlier devascularization. Measurements and Main Results: In all, 912 myomas were removed in these 505 patients laparoscopically. The mean number of myomas removed was 1.85±5.706 (95% CI 1.72–1.98). In all, 184 (36.4%) patients had multiple myomectomy. The mean size of the myomas removed was 5.86 3.300 cm in largest diameter (95% CI 5.56 – 6.16 cm). The mean weight of the myomas removed was 227.74±325.801 g (95% CI 198.03–257.45 g) and median was 100 g. The median operating time was 60 minutes (range 30 –270 minutes). The median blood loss was 90 mL (range 40 –2000 mL). Three comparisons were performed on the basis of size of the myomas (10 cm and 10 cm in largest diameter), number of myomas removed (4 and 5 myomas), and the technique (enucleation of the myomas by morcellation while the myoma is still attached to the uterus and the conventional technique). In all these comparisons, although the mean blood loss, duration of surgery, and hospital stay were greater in the groups in which larger myomas or more myomas were removed or the modified technique was performed as compared with their corresponding study group, the weight and size of removed myomas were also proportionately larger in these groups. Two patients were given the diagnosis of leiomyosarcoma in their histopathology and 1 patient developed a diaphragmatic parasitic myoma followed by a leiomyoma of the sigmoid colon. Six patients underwent laparoscopic hysterectomy 4 to 6 years after the surgery for recurrent myomas. One conversion to laparotomy occurred and 1 patient underwent open subtotal hysterectomy for dilutional coagulopathy. Conclusion: Laparoscopic myomectomy can be performed by experienced surgeons regardless of the size, number, or location of the myomas.

Editorial Comment:

There are controversies regarding the feasibility and outcomes of laparoscopic myomectomy for large myomas. Many previous studies concluded that size, number and location are important to indicate the laparoscopic myomectomy. This large prospective study demonstrates that is possible to perform an efficient laparoscopic myomectomy in ideal conditions, including assistants, instrumentation, port geometry, and surgeon experience.

The authors described some technical modifications that seems to be helpful for the procedure, as such:

1) Insertion of a supraumbilical primary port and a suitable port geometry increasing the operative field;
2) Utilization of a 30-degree telescope to ensure visualization from different angles;
3) Horizontal incision on the base of the myoma, decreasing operative time blood loss;
4) Myoma morcellation while it still attached to the uterus with or without earlier devascularization.

According to the authors, the employment of the above might make the procedure easier to perform with higher success rates.

Should adnexal mass size influence surgical approach? A series of 186 laparoscopically managed large adnexal masses - BJOG 2008;115:1020–1027

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ABSTRACT

Objective: To evaluate the feasibility and safety of laparoscopic management of adnexal masses >10 cm in size. Methods: All women presenting with an adnexal mass 10 cm in diameter were candidates for laparoscopic management. Women were excluded from laparoscopic approach if there was evidence of ascites or gross metastatic disease. Neither the sonographic features of the cyst nor elevated serum CA125 level was used to exclude women from having a laparoscopic approach. A single operative protocol was followed for all women. All removed specimens were sent for immediate pathological evaluation. Main outcome measures Rate of conversion to laparotomy, incidence of cancer encountered, and operative complications. Results One hundred and eighty-six women underwent laparoscopic evaluation for an adnexal mass of 10 cm or larger in size. The average preoperative mass size was 12.1 ± 4.9 cm. A benign pathological condition was found in 86.6% (161/186) of the women, primary ovarian cancer in 16 (8.6%) women, a metastatic tumour of gastrointestinal origin in 1 (0.5%) woman, and a low malignant potential ovarian tumour in 8 (4.3%) women. Laparoscopic management was successful for 174 (93.5%) women. Reasons for conversion to laparotomy included anticipated technical difficulty (n = 7) and malignancy (n = 5). No intraoperative complications occurred in the entire study group. Conclusions: The vast majority of large adnexal masses can be safely resected laparoscopically, provided that there is expertise in laparoscopic surgery, immediate access to frozen section diagnosis, and preparation of patient to receive an adequate cancer surgery.

Editorial Comment:

This paper shows a series of large adnexal masses treated laparoscopically, evaluating the concern of unexpected ovarian cancer, fear of capsular rupture, and inability to proceed immediately with adequate staging.

Although laparoscopy has become the gold standard access for benign adnexal masses, the maximum tumor size has not been determined yet. To date, there are only case reports and some small series addressing the laparoscopic management of large adnexal masses.

Experienced surgeons performed all the 186 cases, with appropriate staging at the same procedure. The authors performed the puncture into an endoscopic bag or for very large masses under laparoscopic visualization followed by closure using prefabricated endoscopic loop in order to minimize tumor spillage. Frozen sections were performed in all cases.

In conclusion, laparoscopic treatment to large adnexal masses seems to be safe when performed by experienced laparoscopic surgeons, reliable frozen section pathologic analysis, satisfactory laparoscopic instruments, capacity to prompt treat and stage the patient in case of malignancy. Consequently, 10cm in size should no longer to be considered a limitation for the laparoscopic approach.

The Hem-o-Lok Clip is Safe for Laparoscopic Nephrectomy: A Multi-institutional Review - Urology - Volume 71, Issue 4 (April 2008)

Lee Ponsky, Edward Cherullo, Alireza Moinzadeh, Mihir Desai, Jihad Kaouk, Georges-Pascal Haber, David Chen, Christopher Ng, Gerhard Fuchs, Dinesh Singh, Antonio Finelli, Igor Frank, and Surena Matin

ABSTRACT

Objectives: To evaluate the safety and reliability of the Hem-o-lok clips for the control of the renal artery during laparoscopic nephrectomies. Methods: Our multi-institutional working group compiled a retrospective review of all laparoscopic nephrectomies (radical nephrectomy, simple nephrectomy, nephroureterectomy, and donor nephrectomy) performed by surgeons in our group. For each procedure, we used Hem-o-lok clips to

control the renal artery and in some cases the renal vein. The number of Hem-o-lok clip failures (defined as intraoperative or postoperative clip dislodgement necessitating reoperation) was recorded. Results: Between October 2001 and June 2006, 9 institutions with laparoscopic trained urologists performed 1695 laparoscopic nephrectomies (radical nephrectomy, N = 899; simple nephrectomy, N = 112; nephroureterectomy, N = 198; donor nephrectomy, N = 486). Follow-up was a minimum of 6 months from the time of surgery. For each case, we used Hem-o-lock clips to control the renal artery. The renal vein was controlled with Hem-o-lok clips in 68 cases (radical nephrectomy, N = 54; simple nephrectomy, N = 3; nephroureterectomy, N = 5; donor nephrectomy, N = 6). Number of clips placed on the patient side of the renal artery was most often 2, occasionally 3. Number of clips placed on the patient side of the renal vein was most often 2 and rarely 3. All cases used the large (L-purple) clip on the artery, and most cases of renal vein used the extra-large (XL- gold) clip on the vein. No clips failed. Conclusions: Based on this large retrospective review, properly applied Hem-o-lock clips for vascular control during renal procedures may provide a safe option.

Editorial Comment:

With the manufacturer release of a memo contra-indicating the use of the Hem-o-lok clips for donor nephrectomy after a report of the American Society of Transplant Surgeons, a major concern about the safety and reliability of the locking clips was raised. This multi-institutional study with a large number of nephrectomies showed no adverse effects or failures of the clips when used adequately. Moreover, the authors stated the basics principles of clip placement as follows:

1. Complete circumferential dissection of the vessel;
2. Visualization of the curved tip of the clip around and beyond the vessel, often with curved end of the clip placed between artery and vein;
3. Confirmation of the tactile snap when the clip engages;
4. Maintenance of a visual stump below the most proximal clip;
5. No cross-clipping;
6. Not squeezing clip handles too hard (compared with the application of metal clips);
7. Careful removal of the applier after application given; the tips are sharp and can cause a laceration of nearby vessels (i.e., renal vein);
8. During transection of vessels, only a partial division is performed initially to confirm hemostasis before complete transaction;
9. Minimum of two clips placed on the patient side of the renal hilar vessel.

Currently, there is no national study regarding perioperative complications of laparoscopic nephrectomy. As the laparoscopic approach is considered the gold standard for this procedure, an effort should be done for collect information on this matter.

Laparoscopic Adrenalectomy for Adrenal Masses: Does Size Matter? - Urology - Volume 71, Issue 6 (June 2008)

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ABSTRACT

Objectives: To examine the impact of adrenal tumor size on perioperative morbidity and postoperative outcomes in patients undergoing laparoscopic adrenalectomy. Methods: A total of 227 laparoscopic adrenalectomies were divided in three groups according to size as estimated by pathologic specimen maximum diameter: less than 6 cm (group 1, n = 140), between 6 and 7.9 cm (group 2, n = 47), and equal to or larger than 8 cm (group 3, n = 40). We prospectively recorded and analyzed clinical and pathologic data. Results: Average operative time was 60 minutes (range, 50 to 90 minutes) for group 1, 75 minutes (range, 65 to 105 minutes) for group 2, and 80 minutes (range, 65 to 120 minutes) for group 3. Estimated blood loss, median (interquartile range) was 50 mL (range, 20 to 100 mL), 100 mL (range, 48 to 225 mL), and 100 mL (range, 50 to 475 mL) for groups 1, 2, and 3, respectively. We observed a total of 10, 4, and 4 complications in groups 1, 2, and 3, respectively. Average hospital stay was 2 days (range, 2 to 3 days), 2 days (range, 2 to 3 days), and 3 days (range, 2 to 4 days), respectively, for groups 1, 2, and 3. Operative time, average blood loss, and mean hospital stay were significantly higher (P =0.05) for group 3 compared with group 1. Conclusions: Laparoscopic

adrenalectomy in large adrenal masses (8 cm or greater) is associated with significantly longer operative time, increased blood loss, and longer hospital stay, without affecting perioperative morbidity.

Editorial Comment:

Laparoscopic approach is the standard-of-care for adrenalectomy, although some controversies stand for large adrenal masses and, specially, for suspicious of malignancy. This paper reports a large, single surgeon series of laparoscopic adrenalectomy, comparing the perioperative outcomes according to the adrenal mass size. The authors showed that when performed for masses >8cm laparoscopic adrenalectomy presented increased estimated blood loss and longer operative time and hospitalization, probably secondary to the extended dissection. More importantly, the perioperative complication rate was no different in the group of larger lesions.

We can conclude from this study that although adrenalectomy for large masses is safe, before undertaking it one should be experienced with the operation in smaller lesions.