

# Erratum

Laparoscopic Urology: Past, Present and Future Ralph V. Clayman, M.D., Louis R. Kavoussi, M.D., and Kevin R. Anderson, M.D.

The following Addendum should have appeared with the article, and Kevin R. Anderson (Department of Surgery (Urology), Washington University School of Medicine, St. Louis, Missouri, U.S.A.) should have been listed as a co-author.

# Addendum

# Adrenalectomy

Adrenalectomy for various disorders including pheochromocytoma, Cushing's syndrome and primary aldosteronism has been done laparoscopically by Suzuki. A transperitoneal approach was used to access the adrenal gland for en bloc removal [43]. Brunt and colleagues have described adrenalectomy via an entirely retroperitoneal approach; however, this has yet to be accomplished clinically [44].

# Ileal Conduit

The field of laparoscopic reconstructive urology was significantly advanced with the report by Kozminski of the laparoscopic creation of an ileal loop for urinary diversion. In two patients the ureteral and ileal dissection was done laparoscopically. In one patient the ureteroileal anastomoses were done extracorporeally. In the second case the ileal anastomosis was done intracorporeally with the EndoGIA stapling device, and the ureteroileal anastomoses were accomplished using intracorporeal sewing techniques [45].

## Nephroureterectomy

Nephroureterectomy has been done in six patients by Clayman and McDougall. Prior to nephroureterectomy, the distal ureter was unroofed. During the nephrectomy, the entire ureter was excised with a bladder cuff using a 12mm laparoscopic GIA stapler. In the most recent case, the entire specimen was removed intact in a laparoscopic sack via a <2.5 inch incision. This allows for the pathologist to accurately grade and stage the tumor while limiting any chance of intraabdominal tumor contamination. None of the patients had extravasation of urine on cystograms prior to hospital discharge. Surveillance cystoscopy at 4–15 months postoperatively in four patients revealed recurrent low grade tumor in one patient. The staple line was not visible in any patient, nor had any patient formed stones [46, 47].

# Radical Nephrectomy

A classical radical nephrectomy (including the ipsilateral adrenal gland) for renal cell cancer has been performed, independently by Schuessler and colleagues as well as by Clayman and associates, in a total of four patients [48, 49]. Both the right and left sides have been done using a transperitoneal approach. In these cases, the specimen has usually been removed intact in a laparoscopic sack through a <2.5 inch incision.

#### Ureteroureterostomy

Both ureteral repair from acute iatrogenic injury and ureteroureterostomy for complete ureteral disruption have now been done through the laparoscope. In both cases, the distal ureter was localized via a cystoscopically placed ureteral catheter. The anastomosis was sewn with absorbable suture using intracorporeal laparoscopic techniques. Postoperatively, a ureteral stent was left in place [50].

## Retroperitoneal Lymph Node Dissection

A laparoscopic transperitoneal approach was used in two patients with low stage germ cell tumors of the testes and who were otherwise candidates for surveillance: 29 paraaortic, preaortic and intraaortocaval nodes were removed in one patient and 17 nodes in the other. Not only was visualization adequate for lymphadenectomy, but the magnification provided for satisfactory dissection of the main sympathetic nodal chain, thereby possibly preserving ejaculatory function [51].

# On the Horizon

In addition, there have been anecdotal reports of several other laparoscopic procedures: pyeloplasty [52], partial nephrectomy [53], nephropexy [54], and cystectomy [55]. It is clear that as video technology and instrumentation improve, laparoscopic surgery will perhaps become an even more valuable technique for the urologist.

### Erratum

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