Retrospective Comparison of Retroperitoneal Laparoscopic Versus Open Dismembered Pyeloplasty for Ureteropelvic Junction Obstruction


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J Urol. 2006; 176: 1077-80

Purpose: We evaluated the clinical value of retroperitoneal laparoscopic dismembered pyeloplasty for ureteropelvic junction obstruction compared with open surgery.

Materials and methods: The clinical data of 56 patients who underwent retroperitoneal laparoscopic dismembered pyeloplasty were retrospectively compared with those of 40 patients who underwent open dismembered pyeloplasty through a retroperitoneal flank approach. The Student t test, Pearson chi-square test and Mann-Whitney rank sum test were applied for statistical analysis as appropriate.

Results: Patient demographic data were similar between the 2 groups. In the laparoscopic group operative time (80 vs 120 minutes), estimated blood loss (10 vs 150 ml), recovery of intestinal function (1 vs 2 days), analgesic requirements (diclofenac sodium suppository) (75 vs 150 mg), incision length (3.5 vs 21 cm) and postoperative hospital stay (7 vs 9 days) were better than in the open group (p <0.001 for all). No intraoperative complications occurred in either group. The incidence of postoperative complications (2 of 56, 3.6% vs 3 of 40, 7.5%, p = 0.729) and success rates (55 of 56, 98.2% vs 39 of 40, 97.5%, p = 0.058) were equivalent in the 2 groups.

Conclusions: Retroperitoneal laparoscopic dismembered pyeloplasty is a minimally invasive, safe and effective therapy for ureteropelvic junction obstruction with low morbidity, shorter convalescence and excellent outcomes, and can be accomplished reasonably quickly in experienced hands.

Editorial Comment

The new era of reconstructive surgery demonstrates the evolution of minimally invasive approaches to the Ureteropelvic junction (UPJ) repair. In a retrospective study, the authors compared the retroperitoneal laparoscopic dismembered pyeloplasty technique to the open pyeloplasty approach with comparable results and complication rates. Significant difference between both techniques included blood loss and incision length.

Moreover, Dr. Winfield discussed in his editorial comment “Management of Adult Ureteropelvic Junction Obstruction - Is it Time for a New Gold Standard?” (J. Urol, 176, September 2006, 866-867 ) the diversity of different surgical techniques available to repair the UPJ obstruction but caution to report post-operative success should be critically evaluated: 1) objectively (nuclear renal lasix scan) and 2) subjectively (pain free post-op).

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Laparoscopic Cytoreductive Nephrectomy: The M. D. Anderson Cancer Center Experience

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Urology. 2006; 68: 528-32
Objectives: Cytoreductive nephrectomy (CN) is an integral component in treating patients with metastatic renal cell carcinoma. Critics of CN argue that perioperative morbidity or postoperative disease progression may preclude patients from receiving systemic therapy. Laparoscopic cytoreductive nephrectomy (LCN) may allow for reduced morbidity and may increase the likelihood of patients receiving systemic therapy.

Methods: From April 2001 to March 2005, 38 patients underwent LCN at our institution. We evaluated perioperative parameters such as demographics, blood loss, operative time, complications, follow-up time, interval to systemic therapy, and survival. A contemporary open cytoreductive surgery group was evaluated for comparison.

Results: The median patient age was 62 years (range 41 to 82). Most patients had a performance status of 1 or less. The median operative time was 188 minutes, and the median blood loss was 175 mL. All specimens were removed intact. The median tumor size was 8 cm (range 3.5 to 14). The median hospitalization was 3 days. Two major (5.7%) and four minor (11.4%) complications occurred, but no perioperative mortality. Postoperatively, 97.4% of patients were eligible for, or received, systemic therapy at a median of 41 days. The overall median survival was 18.1 months. In contrast to open CN, LCN resulted in decreased blood loss and hospital stay, with no differences in complications, operative time, or interval to systemic therapy.

Conclusions: LCN is a safe and effective surgical approach for select patients with metastatic renal cell carcinoma. Our results have indicated that with proper patient selection, LCN is feasible, morbidity is minimized, and systemic therapy is delivered in a timely fashion.

Editorial Comment
The new possibilities of targeted adjuvant therapy for renal cell cancer encouraged the practice of cytoreductive nephrectomy. One of the pivotal issues against this approach is the possible delay of institution of systemic therapy. With the advent of less invasive surgery, i.e.; laparoscopic cytoreductive nephrectomy, initiation of systemic therapy can be started sooner increasing the possibility of better survival.

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IMAGING

Fat Poor Renal Angiomyolipoma: Patient, Computerized Tomography and Histological Findings
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J Urol. 2006; 176: 905-9

Purpose: We reviewed our experience with fat poor cases of angiomyolipoma.
Materials and methods: The records of patients with angiomyolipoma, as determined by pathological study, from 1998 to 2004 were reviewed by recording patient demographics and outcomes. Fat poor cases were defined as the failure of imaging to demonstrate fat in a lesion. Computerized tomography and histological characteristics were assessed.
Results: Histologically confirmed angiomyolipoma was found in 15 patients. Multiple lesions were found in 3 of 15 cases (20%). Of these 15 patients who underwent surgery 11 (73%) had unsuspected angiomyolipoma.