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Laparoscopic renal oncological surgery in the presence of abdominal aortic and vena caval pathology: 8-year experience.

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Source

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Abstract

PURPOSE:

To our knowledge the outcomes of laparoscopic renal oncological surgery in patients with major aortic and/or inferior vena caval pathology are unknown. We present our experience spanning an 8-year period.

MATERIALS AND METHODS:

From March 1998 to October 2006, 1,826 laparoscopic renal procedures were performed for tumor. Of these patients 66 (3.6%) had major abdominal aortic or vena caval pathology concomitantly. Demographics, specific entities of the vascular disease, and intraoperative and postoperative data were reviewed.

RESULTS:

A total of 66 patients had a history of abdominal aortic disease (54), vena caval disease (9) or both (3). Of the patients 85% had 3 or greater comorbidities, 88% had an American Society of Anesthesiologists score of 3 or greater and 88% were on chronic anticoagulation therapy. A total of 27 patients (41%) had undergone prior surgical treatment for vascular pathology. Laparoscopic renal surgery, which was transperitoneal in 25 cases and retroperitoneal in 41, included radical nephrectomy in 20, partial nephrectomy in 17 and cryoablation in 29. Open conversion was performed in 3 patients (5%). There were 3 intraoperative (5%) and 9 postoperative (14%) complications. One patient died of pulmonary sepsis. There was no statistically significant difference in perioperative outcomes between the aortic and vena caval disease groups. The retroperitoneal approach was associated with less blood loss and shorter operative time ($p = 0.0003$ and 0.004 , respectively).

CONCLUSIONS:

Laparoscopic surgery for renal tumor in the presence of aortic or vena caval disease is safe and feasible. Considerable prior laparoscopic experience is necessary when treating these patients at high risk.

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