Complete Transperitoneal Laparoscopic Nephroureterectomy in a Single Position with Upper Urinary Tract Urothelial Carcinoma and Comparative Outcomes

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Abstract

Background: To describe techniques for complete transperitoneal laparoscopic nephroureterectomy for upper urinary tract urothelial carcinoma (UTUC) with a single position and here to report our outcomes.

Materials and methods: Between January 2016 and June 2019, our group performed 50 complete transperitoneal laparoscopic nephroureterectomy (CTLNU) and 48 laparoscopic nephroureterectomy with open bladder cuff excision (LNOBE) for UTUC without metastases in our group. The clinical data were collected and analyzed retrospectively.

Results: All 98 patients of radical nephroureterectomy performance were successfully without transferred into open surgery. No significant difference was found in patient's clinical characteristics. Compare with LNOBE group, the CTLNU group had shorter operative time(98.5 ± 40.3 min vs 132.4 ± 60.2 min), less blood loss(60.4 ± 20.3 ml vs 150.6 ± 50.2 ml), shorter length of hospital stay(5.3 ± 2.2 d vs 8.1 ± 2.3 d), and shorter length of incision(6.3 ± 1.2 cm vs 11.5 ± 3.2 cm). Pathological stage, tumor grade, recurrence rate was similar between these two groups.

Conclusions: Complete transperitoneal laparoscopic nephroureterectomy(CTLNU) in a single position had advantages of shorter operation time, less blood loss, and shorter incision length. This operative method could minimize invasive and accelerate recovery of patients which deserved clinical application and promotion.

Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed. However, the latest manuscript can be downloaded and [accessed as a PDF](#).

Tables

Due to technical limitations, table 1 is only available as a download in the Supplemental Files section.

Figures

Figure 1

The position for operation (The patient was placed in a 45-degree flank position to confirm safe; A. rotate operation bed 30 degrees to ventral side for kidney and proximal ureter dissection; B. rotate operating bed 30 degrees to dorsal side, head low and foot high for distal ureter and bladder cuff dissection)

Figure 2

Trocar arrangement and incision for specimen extraction (left side) for CTLNU: (A) camera port: A 10-mm trocar is placed lateral margin of rectus abdominis muscle of the first finger above the umbilicus; (B) A 5-mm trocar is placed costal margin along the mid-clavicular line; (C) A 12-mm trocar is placed midpoint of the line between the anterior superior iliac spine and the navel (D): 5-mm trocar is inserted in the midline between the umbilicus and the xiphoid process. Specimen extraction is through enlarged transrectus abdominal incision.

Figure 3

Trocar arrangement and incision for specimen extraction (left side) for LNOBE (A) camera port: A 10-mm trocar is placed lateral margin of rectus abdominis muscle of the first finger above the umbilicus; (B) A 5-mm trocar is placed costal margin along the mid-clavicular line; (C) A 12-mm trocar is placed midpoint of the line between the anterior superior iliac spine and the navel. Specimen extraction is through the median incision of lower abdomen.

Supplementary Files

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- [table.pdf](#)