Editorial Comment on: Laparoscopic Radical Nephroureterectomy: A Multicenter Analysis in Japan

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Open radical nephroureterectomy has been the gold standard for the treatment of upper urinary tract urothelial carcinoma (UUT-UC) for decades. With advances in minimally invasive surgery, this concept has been increasingly challenged. Since its first description by Clayman et al from Washington University in 1991 [1], the benefits of laparoscopic nephroureterectomy (LNU) have been well established in terms of decreased perioperative morbidity and shortened convalescence and in comparison with open surgery [2]. But despite these benefits, data concerning long-term oncologic efficacy of LNU remain sparse [3,4].

Kamihira and coauthors present data from a survey promoted by the Japanese Society of Endourology and ESWL among almost 50 institutions in Japan [5]. This study represents the largest LNU series, with 5 yr of follow-up, ever reported to date. Most of the procedures have been performed retroperitoneally. Reported oncologic outcomes compare well with those in large open-surgery and previous laparoscopy series. Thus, given the recognized perioperative and morbidity advantages of LNU, it seems that the authors provide an additional rationale for LNU to become the preferred treatment for UUT-UC.

Nevertheless, instead of findings from a prospective controlled trial, real-life practice data are provided. These data are of interest but they undoubtedly translate into significant drawbacks. Thus, some issues, strictly related to the retrospective nature of the analysis by Kamihira and coauthors, need to be addressed:

- The case loads of the different participating institutions are highly variable (median: 13 cases; range: 2–89). This variability does not allow for an appropriate analysis of the impact of the learning curve, which might have significant consequences. A valid concern with any laparoscopic procedure for urothelial cancer is port-site metastasis. About 10 cases of port-site metastases after LNU have been published to date. Etiologic factors in these cases were specimen extraction without a retrieval bag or retrieval bag rupture. In the paper by Kamihira and coauthors, a port-site metastasis is thought to be caused by a pelvic laceration, and it is unclear whether that might have been related to limited surgical expertise.
- Complete information about the management of the distal ureter is lacking. This surgical step has been widely recognized as a factor influencing the outcome of these patients, and it should follow established principles of oncologic surgery.
- The impact of adjuvant chemotherapy remains unaddressed, as an initial selection bias is present, similar to previous experiences.
- Even if staging value in high-grade/high-stage disease is advocated to better tailor postoperative care and therapy, the feasibility and efficacy of lymph node dissection as a therapeutic maneuver remains to be elucidated.

In conclusion, as the oncologic outcomes after LNU continue to mature, a laparoscopic approach for the renal portion of nephroureterectomy is widely accepted as the gold standard in the treatment of organ-confined UUT-UC. Carefully designed prospective randomized trials, however, would be necessary to address these open issues in the management of UUT-UC. Unfortunately, such trials remain prohibitive for several reasons and are far from being conducted.

References


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