Role of lymph node dissection in managing urologic cancers

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Received: 22 March 2011 / Published online: 7 April 2011
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In the field of oncology, lymph node dissection plays an important role in staging and therapeutic intervention. The staging value of lymph node dissection in the management of urologic cancers is well recognized. Accurate staging of disease with appropriate lymph node dissection may result in pertinent judgment of disease status for closer follow-up, possible adjuvant therapy, and new therapeutic strategies by defining high-risk patients. Recent studies have indicated that lymph node dissection plays a substantial therapeutic role in certain types of urologic cancers.

In cancers of the bladder, it has been strongly suggested that extensive dissection of the lymph nodes may provide better survival [1]. Although the ideal template and procedure of lymph node dissection have not been clearly defined, one therapeutic benefit of lymph node dissection has recently been reported in urothelial cancer of the upper urinary tract [2]. However, the suggested findings have been shown only in retrospective studies and have not been clarified by randomized prospective studies.

In renal cell carcinoma, a commendable prospective randomized study by the European Organization for Research and Treatment of Cancer (EORTC) showed that complete lymph node dissection was not associated with a survival advantage in patients who underwent radical nephrectomy for localized cT1 renal cell tumors [3]. However, even after the EORTC study, much remains to be clarified [4]. For example, because there are very few patients with pathologically proven lymph node metastasis, more extensive lymph node dissection might improve the outcome. Studies might be underpowered, and the

therapeutic role of lymph node dissection in patients with high-risk tumors might be underestimated.

In prostate cancer, the therapeutic significance of lymph node dissection in radical prostatectomy has not been established until now. However, several recent retrospective studies have suggested that extensive lymph node dissection may have a significant impact on recurrence after radical prostatectomy [5]. In addition to the lack of robust randomized clinical trials in the literature, the boundaries of “extended” and “standard” pelvic lymph node dissection in radical prostatectomy need to be defined and standardized.

Here we present four reviews, from experts in this field, on lymph node dissection in four types of urologic cancers. We want our readers to understand the updated concepts of lymph node dissection of cancers of the kidney, bladder, upper urinary tract, and prostate gland.

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