

Lymph Node Positive Prostate Cancer: The Impact of Extended Pelvic Lymph Node Dissection

Introduction and Objective: The impact of extended pelvic lymph node dissection (ePLND) in locally advanced prostate cancer (PCa) is still a matter of debate. We examined the lymph nodes (LNs) collected during ePLND in patients with PCa, and assessed the incidence and clinical impact of LN metastases.

Materials and Methods: A total of 205 patients with presumed organ-confined PCa underwent ePLND, followed by radical prostatectomy. Recently, ePLND was facilitated by preoperative intraprostatic injection of Tc-99m-nanocolloid and intraoperative detection of the sentinel LNs by gamma probe. All LNs harvested were processed separately for histological and immunohistochemical examination.

Results: The median (range) number of LNs removed was 13 (6-38). LN metastases were found in 54 patients (26.3%). Most of them were localized outside the obturator fossa, distributed as follows: obturator (39%), external iliac (15%), internal iliac (38%), common iliac (7%), and presacral LNs (1%). The LN status showed to have a significant impact on disease-free survival on univariate and multivariate analysis. The Kaplan-Meier estimates of the disease-free, the overall and the cancer-specific survival at the 10th year after surgery were 73.0%, 75.5% and 95.0% for LN negative disease, and 18.7%, 38.6% and 38.6% for LN positive disease, respectively. Patients with LN density < 15% had significantly longer disease-free survival ($p = 0.013$, log-rank test), similar to that of LN negative patients.

Conclusions: ePLND has a significant impact on proper staging, prognosis and oncological outcome of PCa. Our results confirm the necessity to perform ePLND in high-risk PCa.