

Is Pelvic Lymph Node Dissection Needed for Low-Risk Prostate Cancer at Radical Prostatectomy?

Introduction and Objectives: To determine the necessity of pelvic lymph node dissection (PLND) for low-risk prostate cancer at radical prostatectomy, we compared patients with low-risk disease who underwent PLND with those who did not undergo PLND at the time of radical prostatectomy.

Materials and Methods: Medical records for 1,268 consecutive patients undergoing open retropubic radical prostatectomy between January 2000 and December 2009 who had not undergone neoadjuvant therapy were retrospectively reviewed. The low-risk subgroup (n=222; prostate-specific antigen (PSA), ≥ 10 ng/ml, biopsy Gleason score (GS) ≤ 6 , clinical T1c or T2a) were classified according to whether they underwent PLND (PLND group, n=147) or did not (no-PLND group, n=75). Frequency of lymph node metastases in the PLND group, 5-year PSA recurrence-free survival in both groups and operative morbidities in both groups were analyzed.

Results: The PLND group was likely to be older and show clinical T2a. Lymph node metastasis was detected in only one case from the PLND group (0.7%). With a median follow-up of 26 months for the no-PLND and 60 months for the PLND group, 5-year PSA recurrence-free survival rates were 87.1% and 87.6%, respectively ($P=0.65$, log-rank). Operative time, blood loss, Clavien classification and lymphatic morbidities did not differ significantly between the groups.

Conclusions: PLND can be spared at radical prostatectomy for low risk disease, since its diagnostic and therapeutic value is poor.

	no PLND	PLND			no PLND	PLND	
Number of patients (n)	75	147	<i>P</i>	Surgical outcomes available (n)	42	22	<i>P</i>
Median age (years)	63	67	< 0.01	Median operative time (min)	234	239	<i>0.33</i>
Median PSA (ng/ml)	5.9	6.4	<i>0.15</i>	Median blood loss (ml)	990	983	<i>0.36</i>
Clinical T				Nerve sparing			<i>0.03</i>
cT1c	54.7%	70.1%	< 0.01	none	0.0%	4.5%	
cT2a	45.3%	29.9%		unilateral	7.1%	27.3%	
Final Gleason score			<i>0.04</i>	bilateral	92.9%	68.2%	
≤ 6	45.3%	28.6%		Clavien classification			<i>0.38</i>
7	48.0%	61.2%		1 or 2	26.2%	22.7%	
≥ 8	6.7%	10.2%		3	7.1%	0.0%	
Positive surgical margin	9.3%	19.0%	<i>0.05</i>	Lymphatic morbidities			<i>0.64</i>
SV invasion	1.3%	1.4%	<i>0.99</i>	1 or 2	2.4%	4.5%	
Lymph node involvement	<i>n.a.</i>	0.7%		3	0.0%	0.0%	
5-year PSA recurrence-free survival	87.1%	87.6%	<i>0.65 (log rank)</i>				