

(MP61-02) DETAILED CADAVERIC ANALYSIS FOR PERIVESICAL LYMPH NODES WITH POTENTIAL IMPLICATIONS IN BLADDER CANCER

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Introduction

- Perivesical lymph nodes were added to the 8th edition of AJCC staging for bladder cancer. (Table 1)
- In pN+ patients, positive perivesical lymph nodes are associated with even worse overall survival.
- Perivesical lymph nodes are inconsistently evaluated at the time of radical cystectomy and can be difficult to differentiate from perivesical fat.
- Currently, no studies have detailed the presence or anatomic location of perivesical lymph nodes.

Table 1: AJCC Cancer Staging 8th Edition: Changes to Bladder Cancer Staging

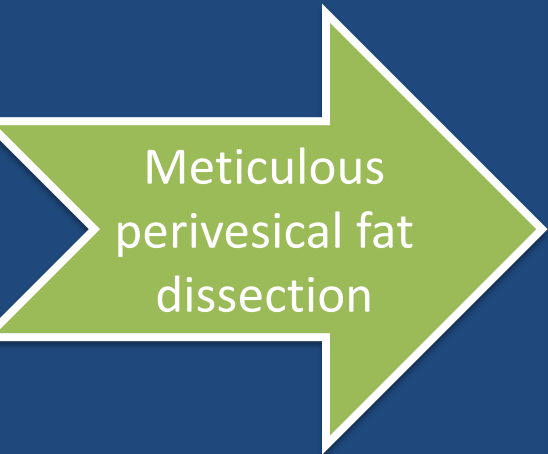
Bladder	N	N1	Perivesical lymph node involvement classified as N1
	M	M1	M1 is subdivided into M1a (non-regional lymph node only) and M1b (non-lymph-node distant metastases)
	Stage	Stage 3	Divided into 3A (T3a/T3b/T4a, N0, M0; or T1-T4a, N1, M0) and 3B (T1-T4a, N2 or N3, M0)
		Stage 4	Divided into 4A (Any T, Any N, M1a) and 4B (Any T, Any N, M1b)

Methods

- Six un-embalmed cadavers (4 male, 2 female) with no prior pelvic malignancy or surgery were utilized.
- An open radical cystectomy was performed on all specimens with wide resection of perivesical tissue and meticulous care to separate the pelvic lymph nodes (e.g. obturator, external iliac) from the specimen.



- Due to the amount of perivesical fat, the specimens were fixed in a lymph node revealing solution (95% ethanol, diethyl ether, glacial acetic acid, buffered formalin) for 6 hours.



- Perivesical tissue dissection in 2 mm slices was performed.
- Lymph node identification and examination were performed grossly and microscopically with a board-certified pathologist.

Results

- Ten potential anatomic locations for perivesical lymph node locations were developed:

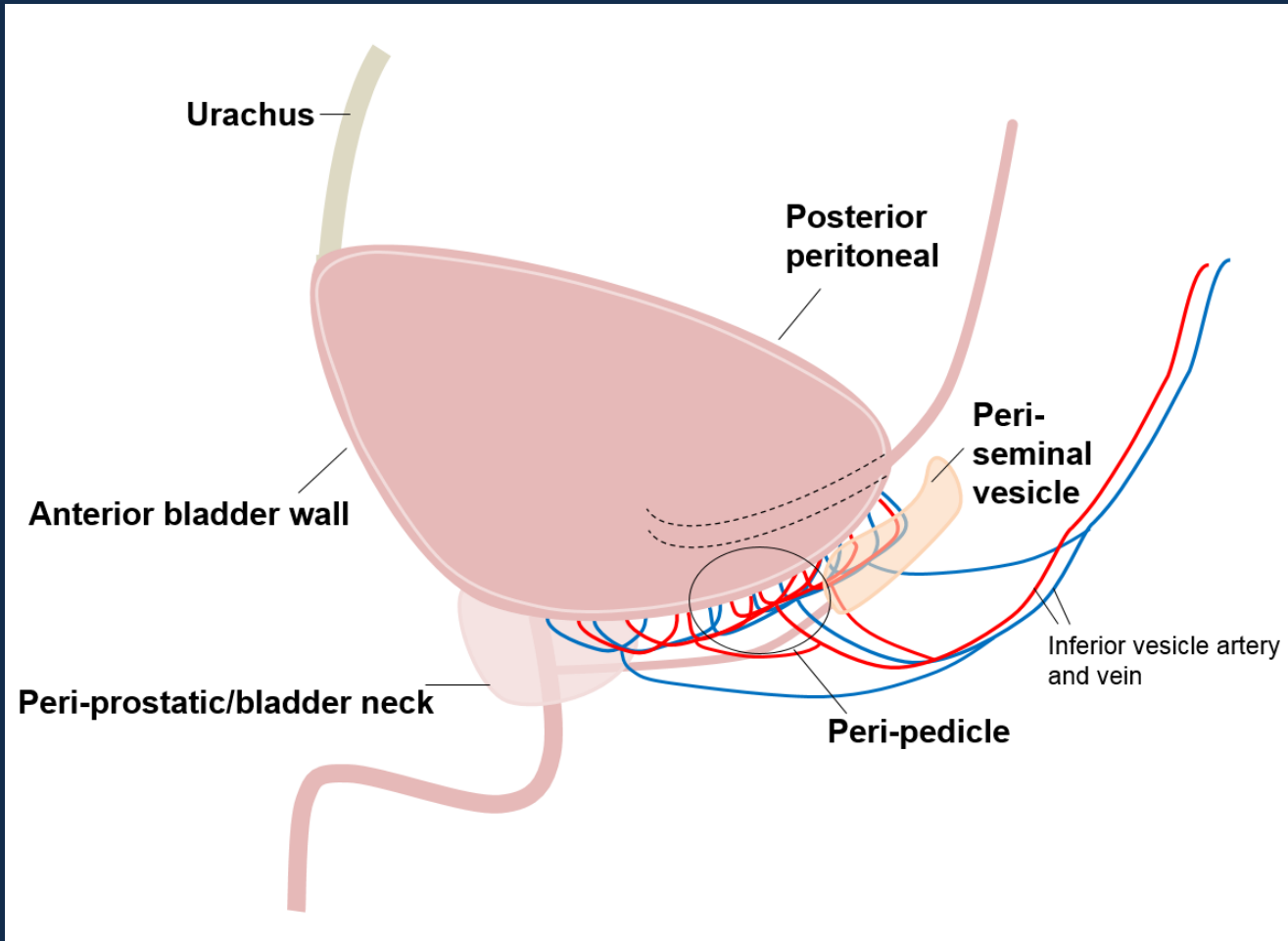
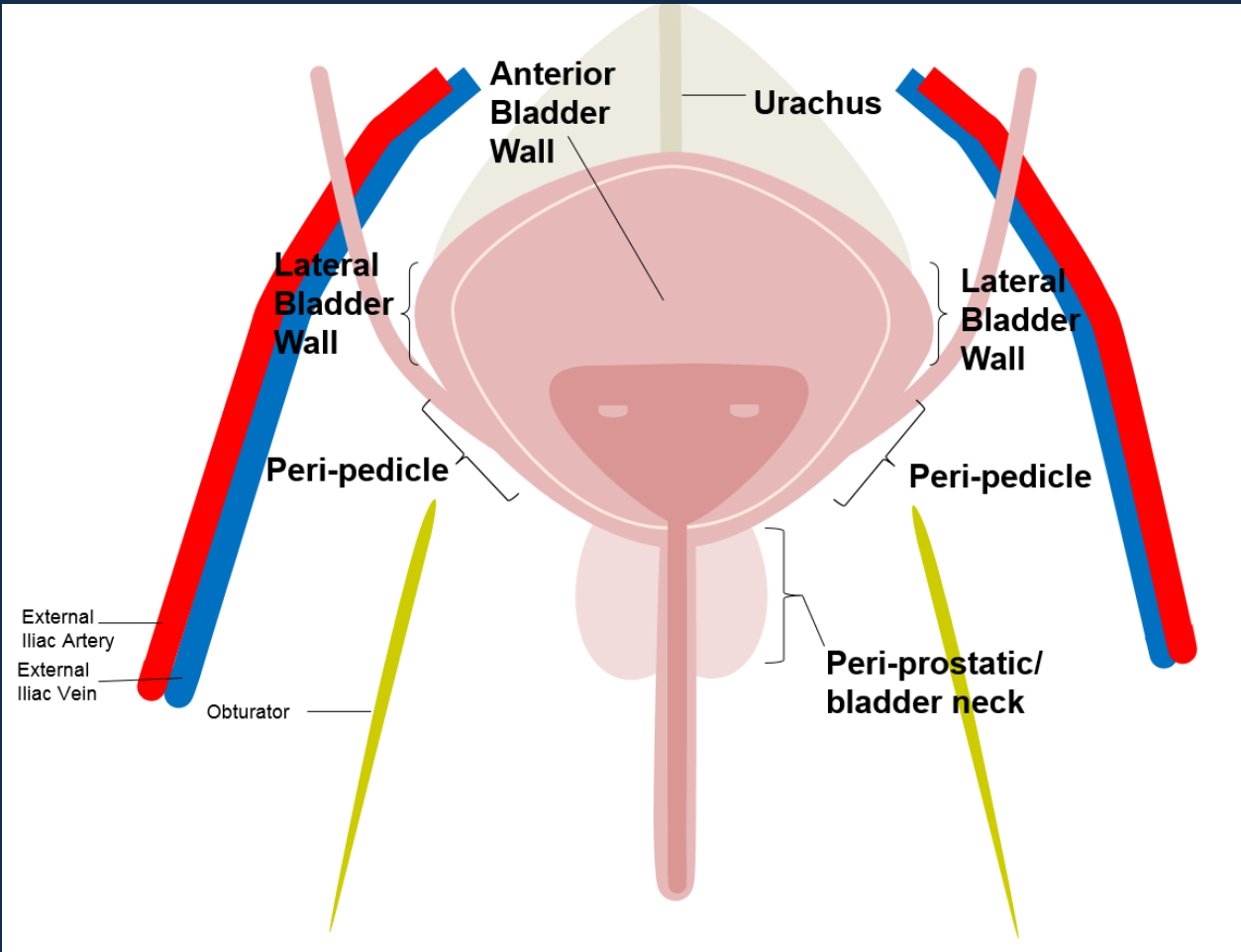


Table 2: Individual Perivesical Lymph Node Characteristics

		Location	Size (mm)	Distance from bladder wall (mm)
Cadaver 1	LN 1	Right peripedicle	8x6	15
	LN 2	Right peripedicle	13x16	15
	LN 3	Left lateral bladder wall	12x14	15
Cadaver 2	LN 1	Posterior peritoneum	3x2	3
	LN 2	Anterior bladder wall	2x2	3
Cadaver 3	LN 1	Left lateral bladder wall	2x2	3

Conclusions

- In a cadaveric model with meticulous dissection, gross and histologically-confirmed lymph nodes were identified in the perivesical space in half of cadavers.
- When present, cadavers had an average of two lymph nodes that were distributed around the bladder and within 15mm of the bladder wall.
- This data argues for thorough evaluation of the radical cystectomy specimen for perivesical lymph nodes.