Καρκίνος της ουροδόχου κύστης: Λεμφαδενικός καθαρισμός

Βασίλειος Τζώρτζης

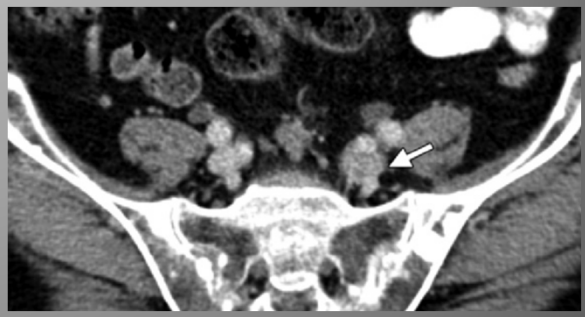
- Σύγκρουση συμφερόντων : καμία

Πυελικός λεμφαδενικός καθαρισμός

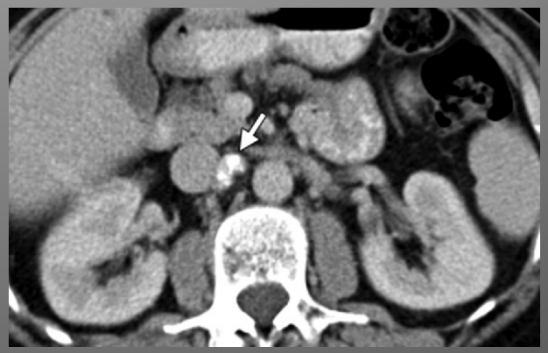
- Αποτελεί μέρος της χειρουργικής επέμβασης
  - Σταδιοποίηση (25% N+ κατά την επέμβαση)
  - Πρόγνωση (σημαντικότερος)
  - Επικουρική Θεραπεία
  - Επιβίωση

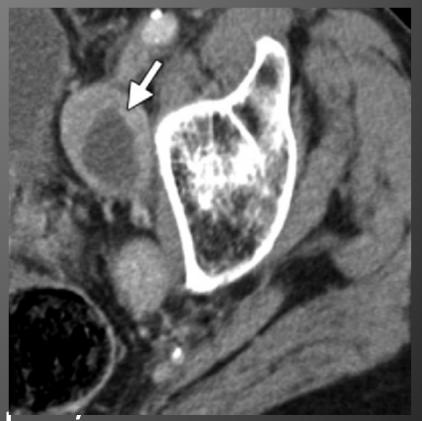
    - Θεραπευτική αξία

Ποια είναι τα διαγνωστικά κριτήρια;



- Μέγεθος (10mm)
  - Sensitivity
    - CT 24% - 78%
    - MRI 24% - 75%
- Σχήμα
  - Ανώμαλο περίγραμμα
- Αριθμός
  - ομαδοποίηση
- Αρχιτεκτονική
  - Επασβέστωση
  - Χαμηλή πυκνότητα του πυρήνα
  - Ανομοιογενής – ομοιογενής ενίσχυση μετά το σκιαγραφικό



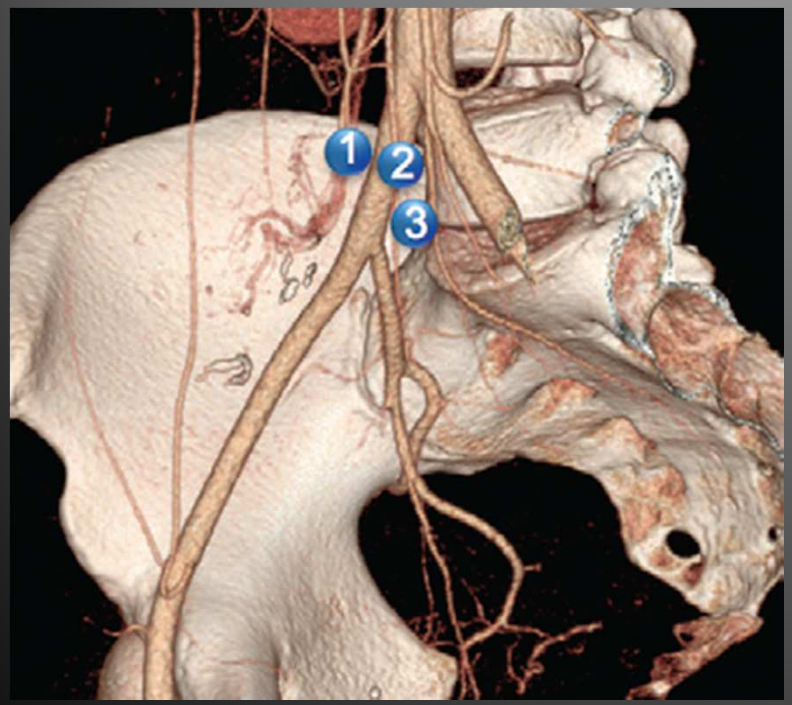


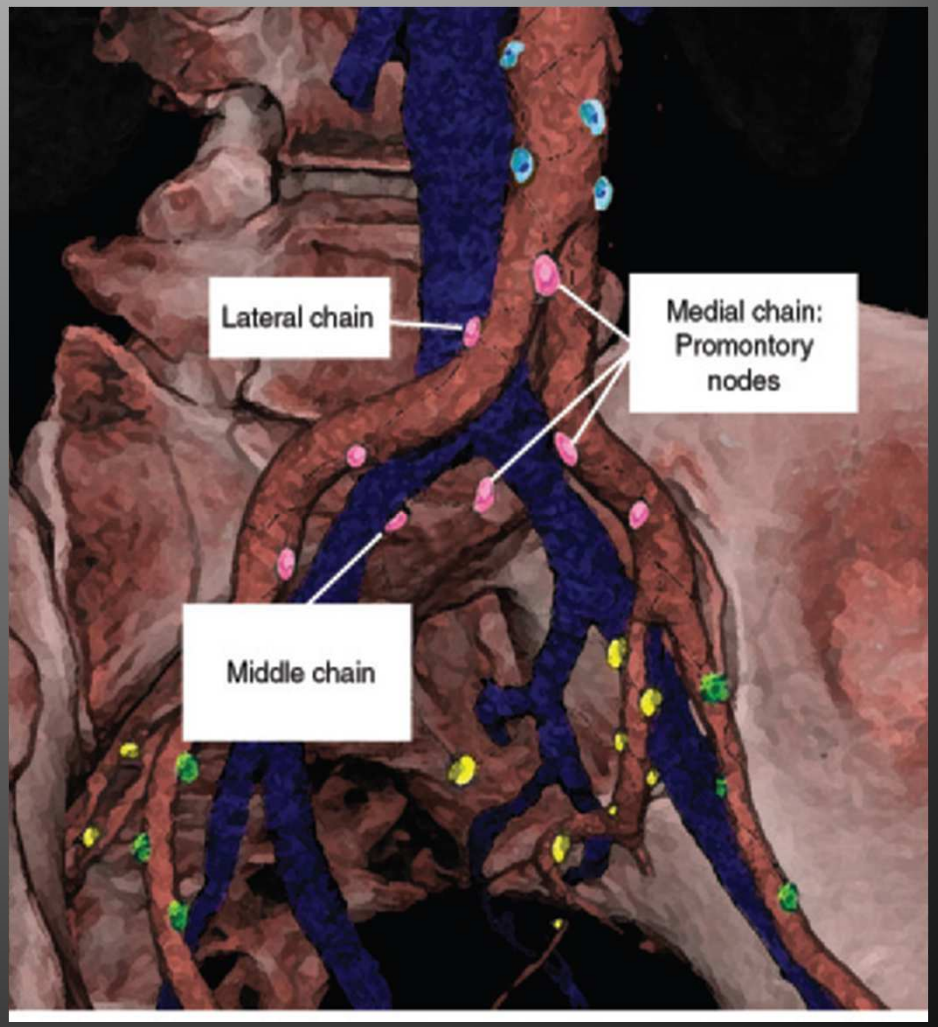
- Τοποθεσία
  - Nodes that are located along the pathway of lymphatic drainage from a primary tumor and that are borderline in size or recently increased in size have a higher probability of metastatic infiltration…

- 11C-acetatePET/CT=MRI=CT

Ανατομία πυελικών λεμφαδένων;

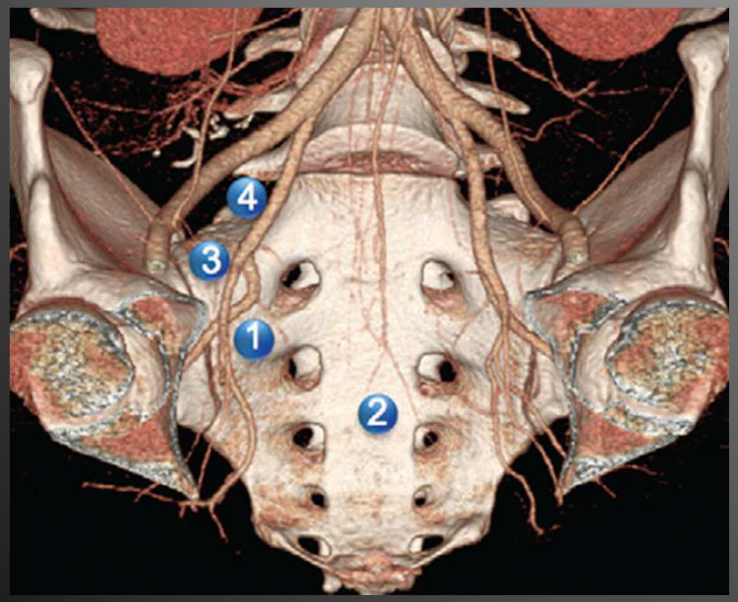
Κοινής λαγονίου

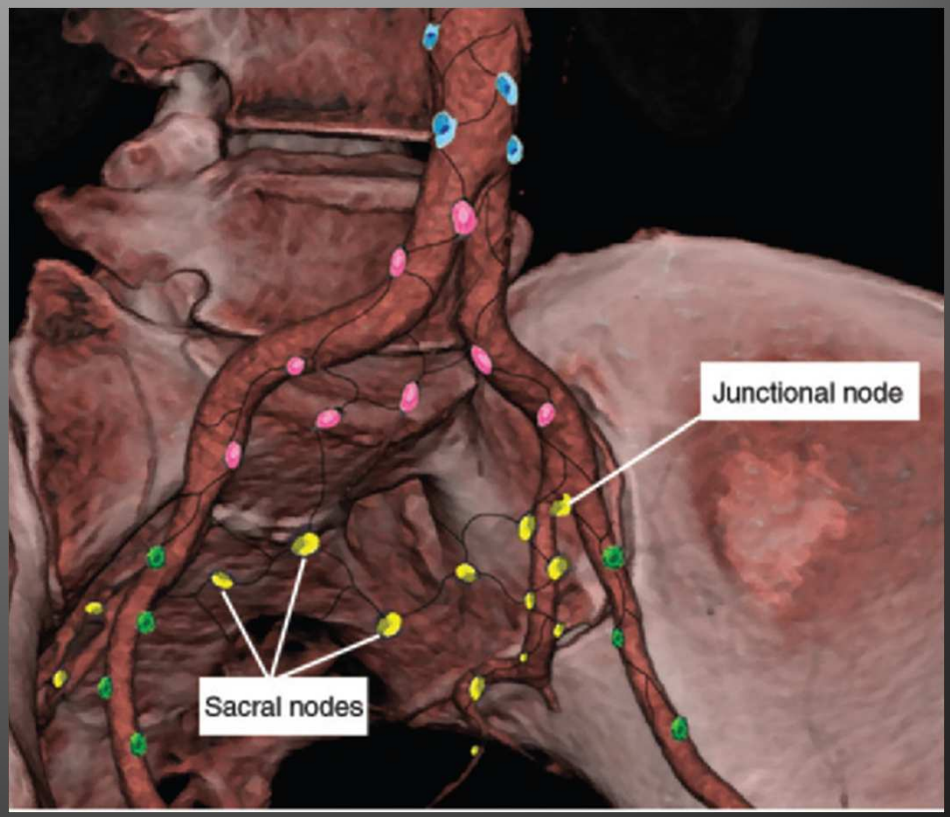




Ανατομία πυελικών λεμφαδένων;

Έσω λαγονίου

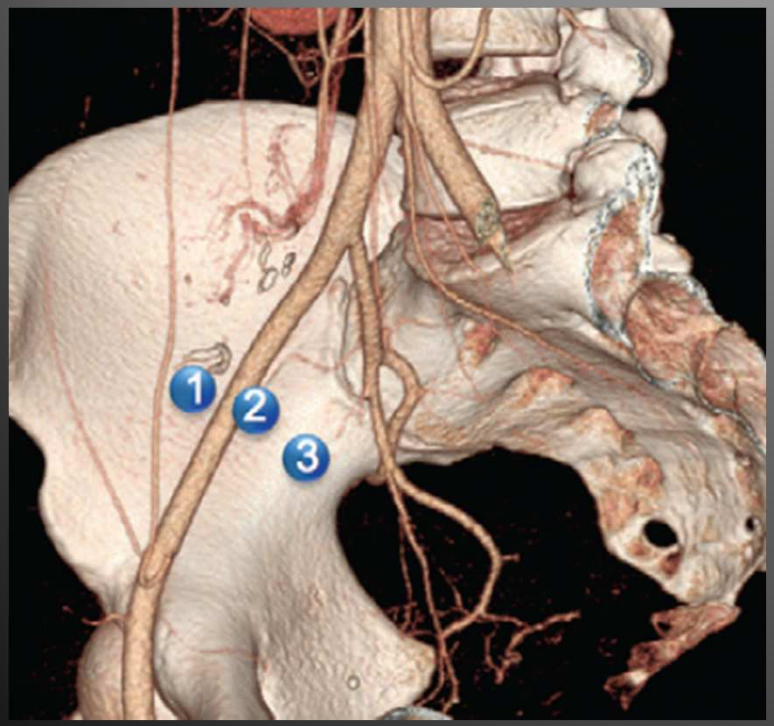


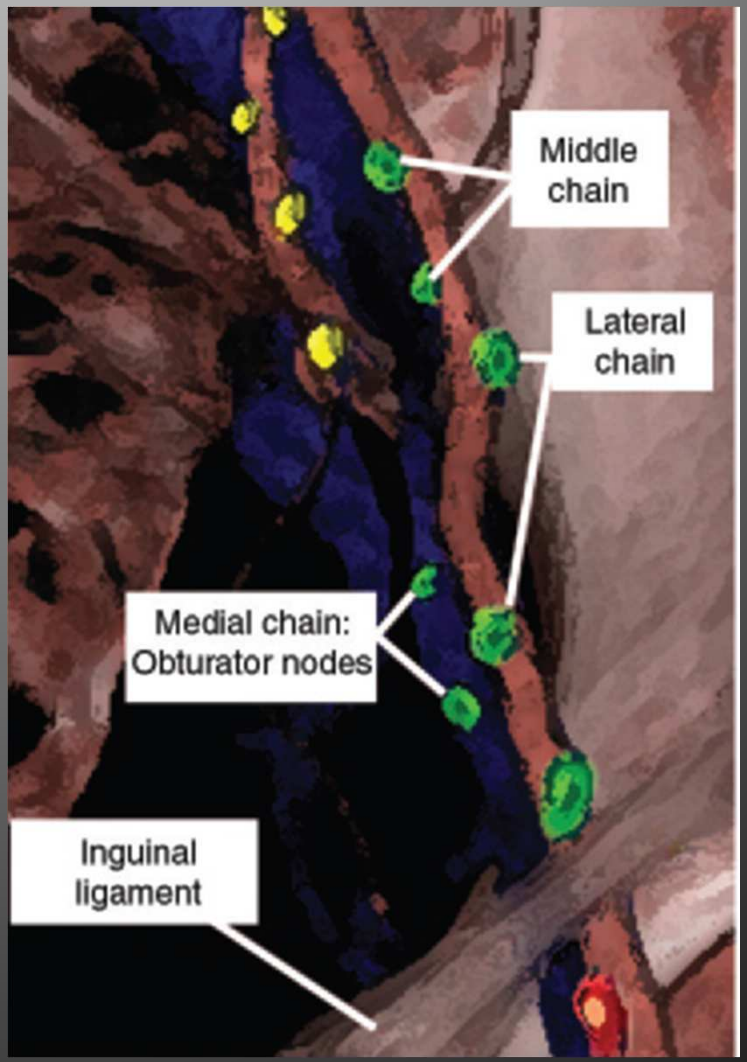


1 = lateral sacral, which are adjacent to lateral sacral artery (arrow); *2* = presacral; *3* = anterior, which are anterior to anterior division of internal iliac artery (arrowhead); *4* = hypogastric.

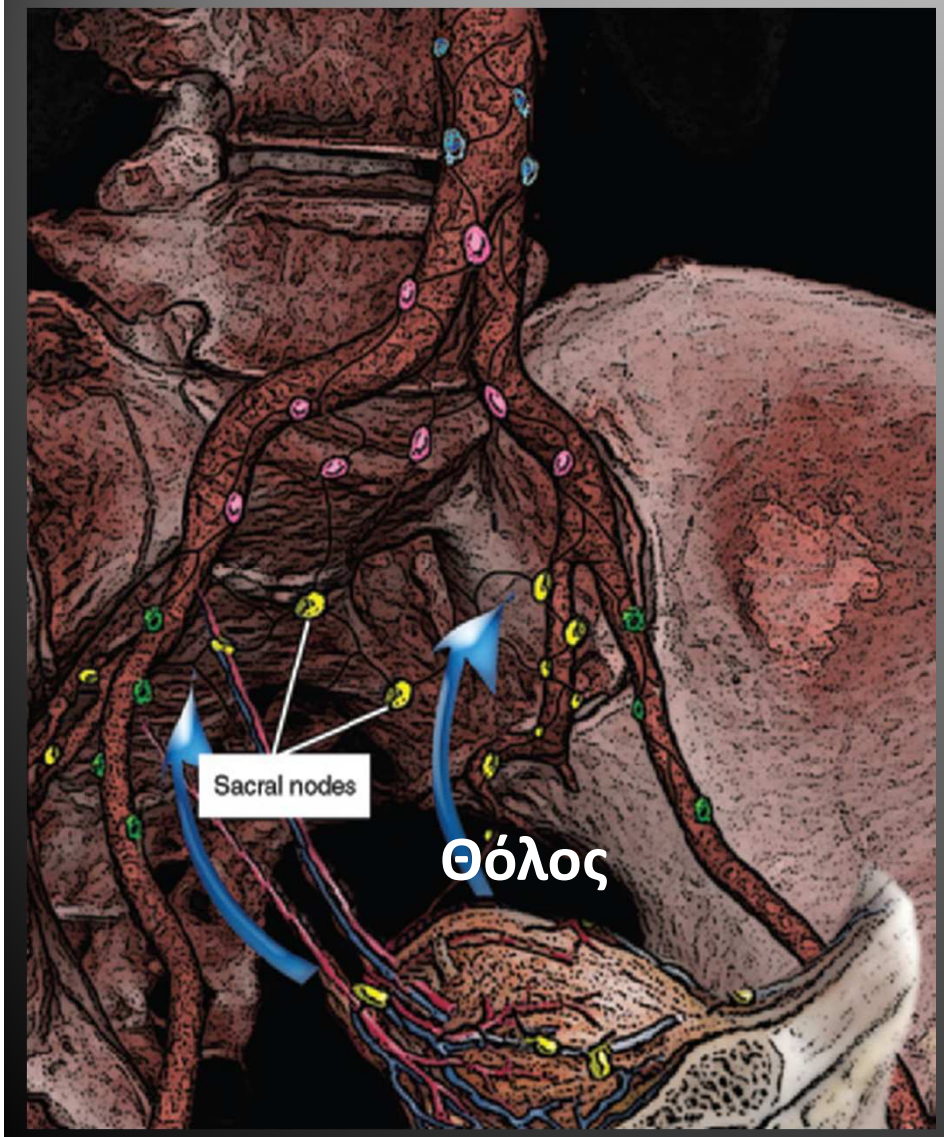
Ανατομία πυελικών λεμφαδένων;

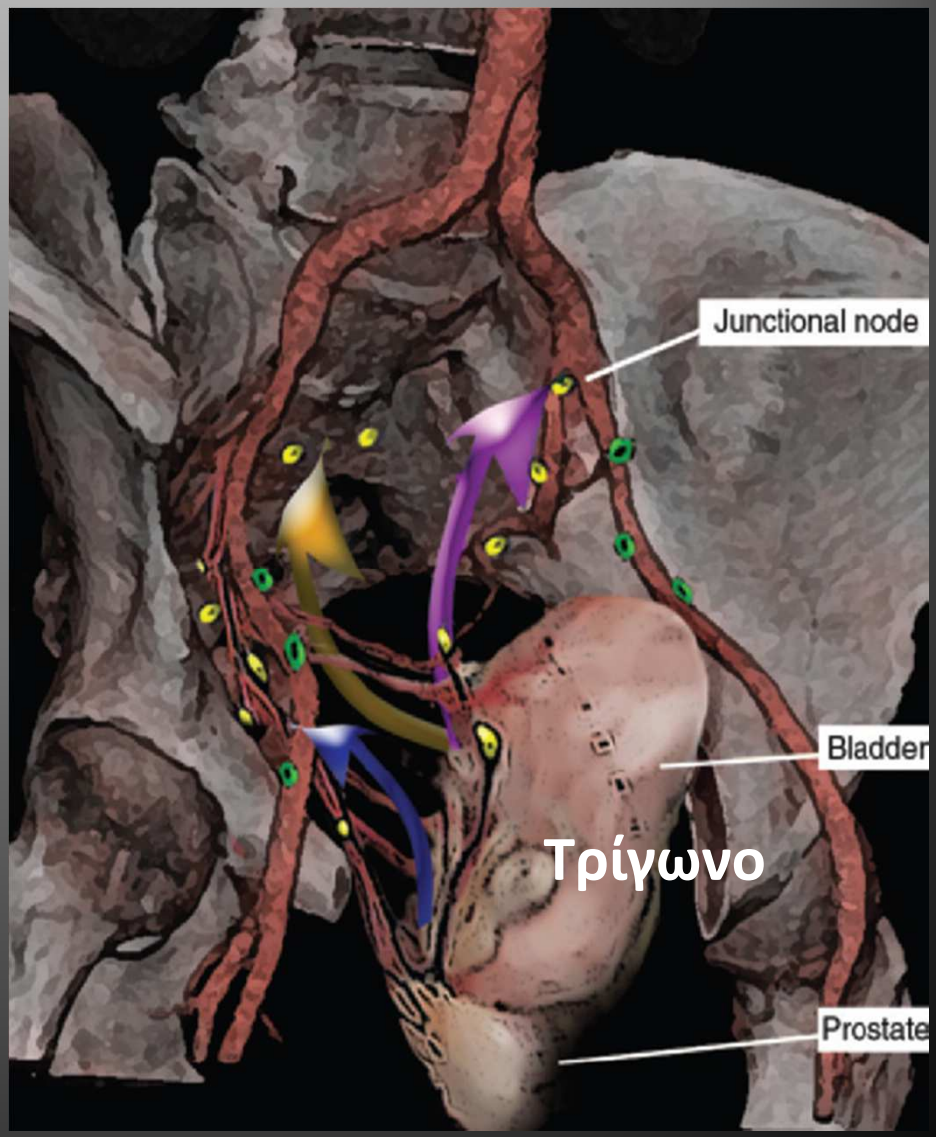
Έξω λαγονίου





Μπορεί η θέση του όγκου να προβλέψει την πορεία μεταστάσεων;





Pano et al RSNA 2011

Υπάρχει φρουρός λεμφαδένας;

- Όχι αλλά…..
- Λεμφαδένες έσω – έξω λαγονίου, θυροειδούς
- Δεν υπήρξε εξωπυελική νόσος χωρίς Μετα στους πυελικούς λεμφαδένες

Abol-Enein et al J Urol 2004

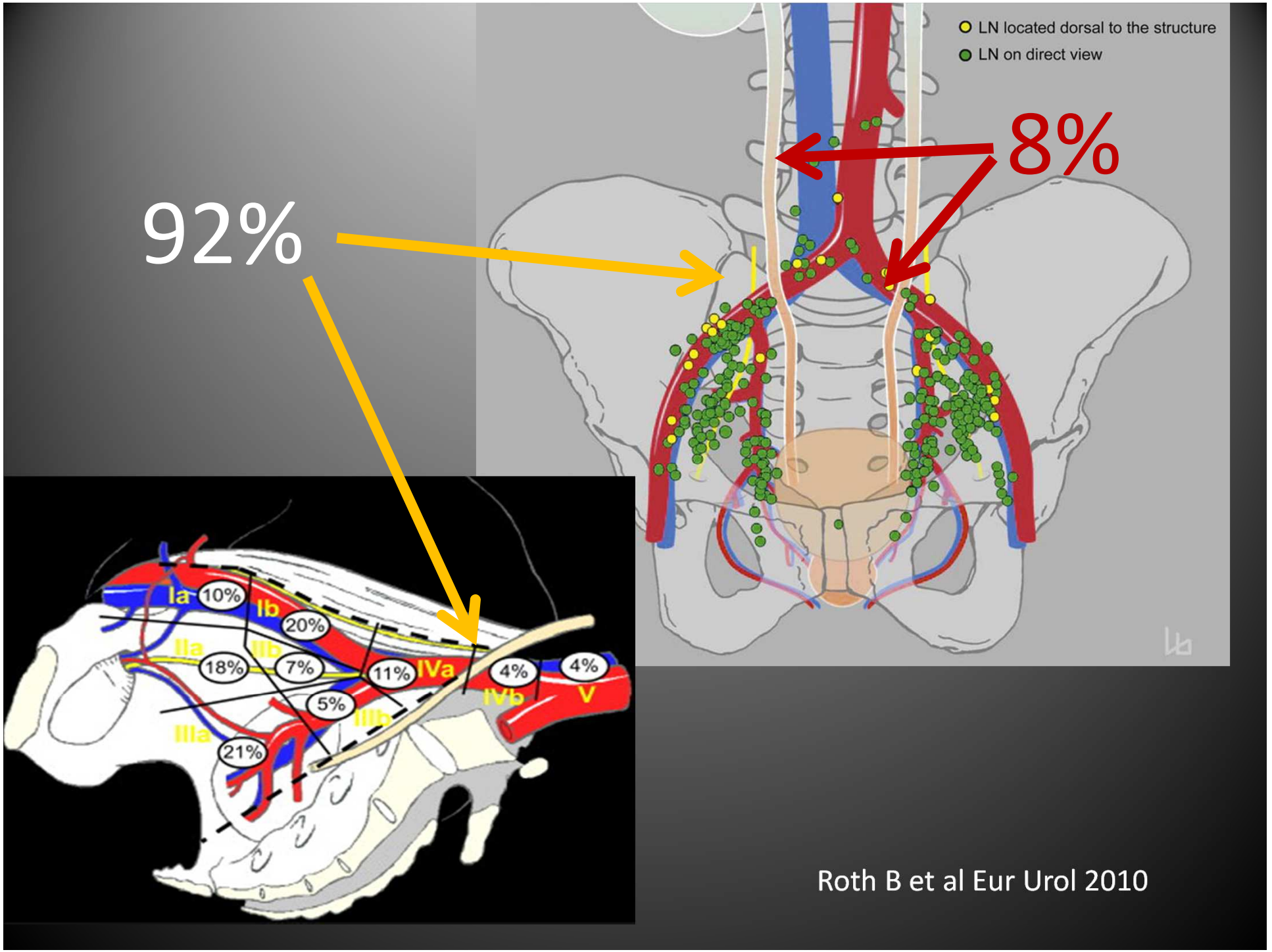
Υπάρχει φρουρός λεμφαδένας;

- 3 επίπεδα
  - Κάτω από το διχασμό της λαγονίου μόνο (6.9%)
  - Πάνω από το διχασμό της λαγονίου και κάτω από το διχασμό της αορτής μόνο (6.9%)
  - Πάνω από το διχασμό της αορτής έως την κάτω μεσεντέριο αρτηρία μόνο (0%)

Leisner et al J Urol 2004

- Skip Lesion are very rare, this phenomenon may be the result of missed positive LNs in the true pelvis or of a specimen-abeling error

Tarin et al Eur Urol 2012


LN located dorsal to the structure
LN on direct view
8%
92%
Ia
10%
Ib
20%
IIa
IIb
18%
7%
11%
IVa
4%
4%
IVb
V
5%
IIIb
IIIa
21%
Roth B et al Eur Urol 2010

Γιατί και πια τεχνική;

Outcome After Radical Cystectomy With Limited or Extended Pelvic Lymph Node Dissection

Nivedita Bhatta Dhar, Eric A. Klein, Alwyn M. Reuther, George N. Thalmann, Stephan Madersbacher and Urs E. Studer*

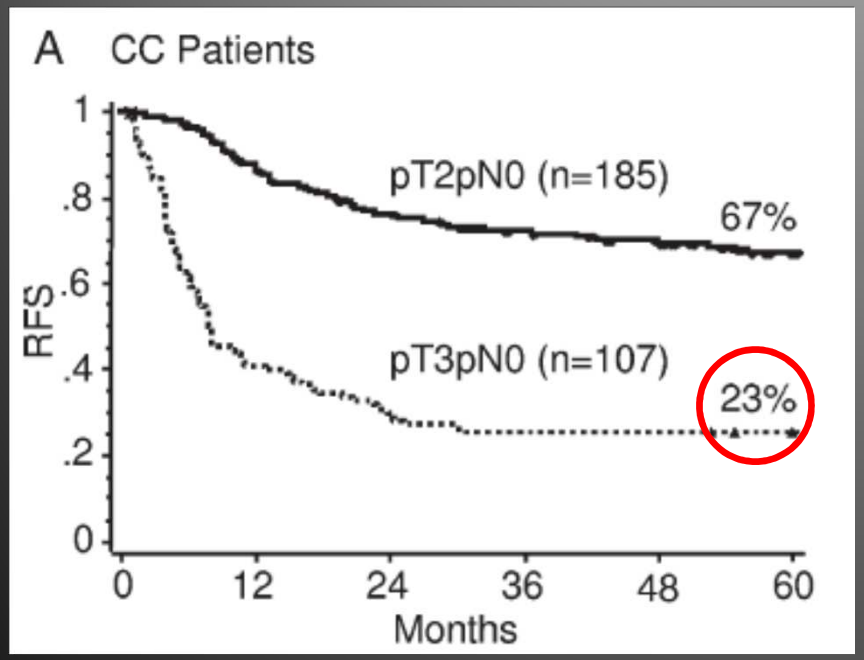
From the Department of Urology, University of Bern, Bern, Switzerland (NBD, GNT, SM, UES) and the Glickman Urological Institute, Cleveland Clinic, Cleveland, Ohio (NBD, EAK, AMR)

Materials and Methods: Two consecutive series of patients treated with radical cystectomy and limited pelvic lymph node dissection (336; Cleveland Clinic) and extended pelvic lymph node dissection (322; University of Bern) were analyzed. All cases were staged N0M0 prior to radical cystectomy, and none were treated with neoadjuvant radiotherapy or chemotherapy. Patients with PTis/pT1 and pT4 disease were excluded from analysis. Pathological characteristics based on the 1997 TNM system and recurrence patterns were determined.

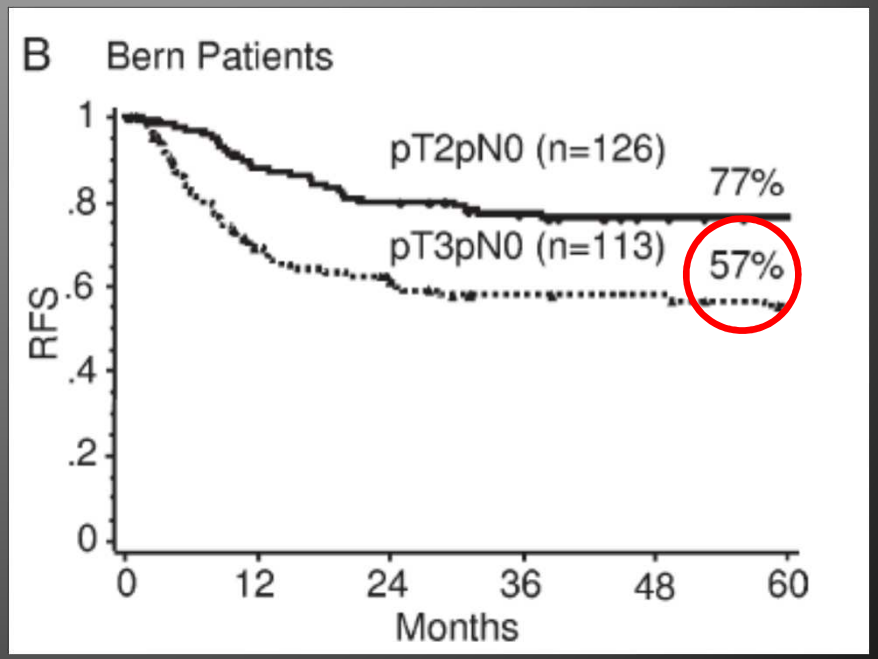
Conclusions: Our data suggest that limited pelvic lymph node dissection is associated with suboptimal staging, poorer outcome for patients with node positive and node negative disease, and a higher rate of local progression. Extended pelvic lymph node dissection allows for more accurate staging and improved survival of patients with nonorgan confined and lymph node positive disease.

Recurrence-free survival After Radical Cystectomy With Limited or Extended *PLND* for pT2+3pN0

Limited PLND

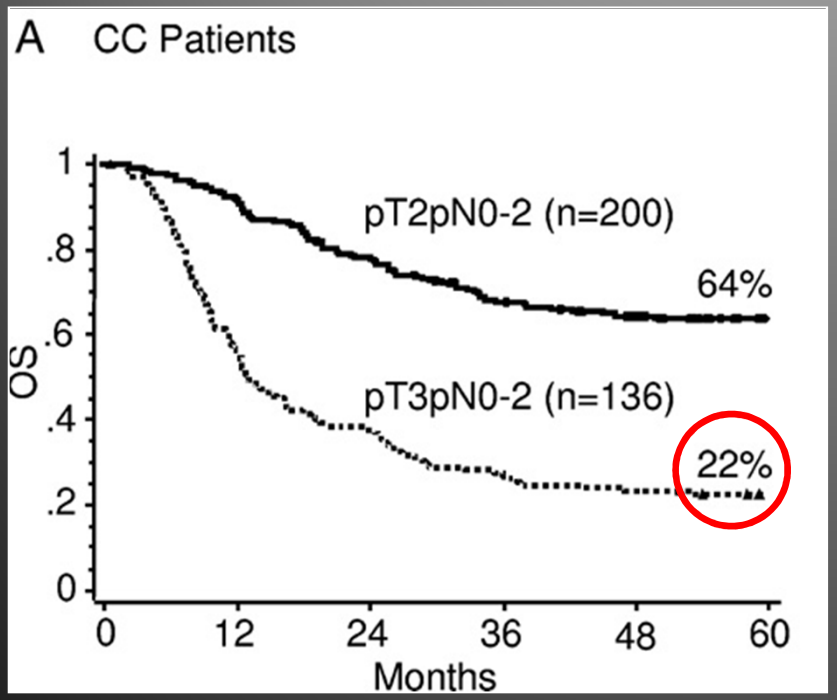


Extended PLND



Overall survival After Radical Cystectomy With Limited or Extended *PLND* for pT2pN0-2 and pT3pN0-2

Limited PLND



Extended PLND

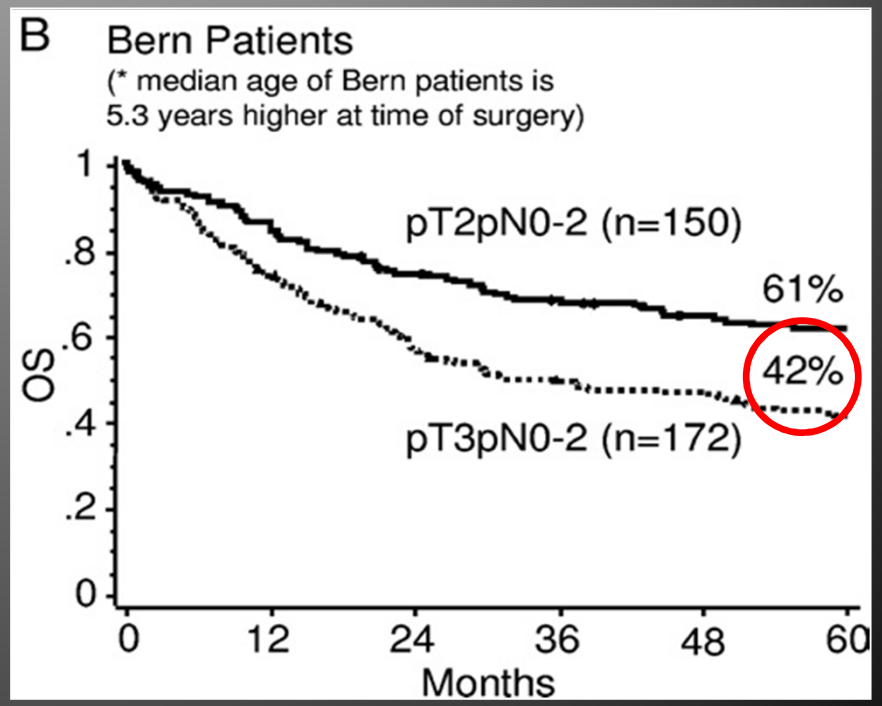


Table 1 Outcomes of large radical cystectomy/pelvic lymph node dissection series (Original)

Series	[c]No. of patients	Type of PLND	% of patients LN+	Median follow-up	5-year RFS LN–	5-year RFS OC	5-year RFS EV	5-year RFS LN+
Stein [42]	1054	Extended	23	10.2 years	78	80	46	39
Steven [27]	336	Extended	19	3.6 years	77	83	34	42
Poulsen [31]	126	Extended	26	n/a	n/a	85	n/a	n/a
Poulsen [31]	68	Standard	n/a	n/a	n/a	64	n/a	n/a
Dhar[a] [40]	322	Standard	26	40 months	68	71	49	35
Dhar[a] [40]	336	Limited	13	25 months	51	63	19	7
Hautmann[c] [43]	788	Standard	18	3 years	74	79	38	21
Madersbacher [44]	507	Standard	24	31 months	65	75	47	33
Herr and Donat[b,c] [45]	84	Extended	n/a	10 years	n/a	n/a	n/a	24
Mills [46]	83	Standard	n/a	6 years	n/a	n/a	n/a	29
Abdel-Latif[d] [47]	418	Standard	26	40 months	78[e]	n/a	n/a	38[e]

EV, extravesical primary tumor (pT3 or pT4); LN–, no metastatic LNs; LN+, metastatic LNs; OC, organ confined primary tumor (pTa, pT1, pTis, pT2).
[a] pT1, pTis, pT4 excluded in this study.
[b] all patients had grossly positive LNs at time of cystectomy.
[c] all patients treated with surgery only.
[d] 30% of patients had squamous cell histology, which conferred significantly improved 3-year survival rates.
[e] 3-year survival rate.

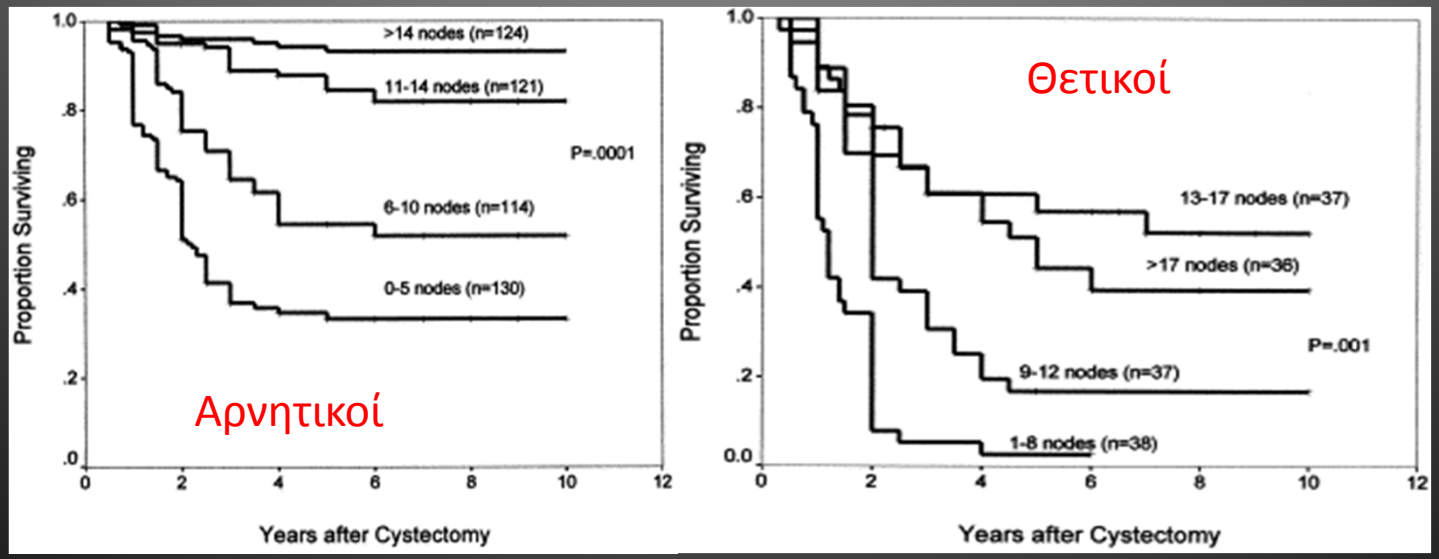
Dorin RP & Skinner EC. Curr Opin Urol 2010

Λεμφαδενεκτομή με αρνητικούς λεμφαδένες;

- Sensitivity
  - CT 24% - 78%
  - MRI 24% - 75%

Jager AJR Am Roentgenol 1996

- Επιβίωση



Herr Urology 2003

Πότε κάνουμε;

- Πάντοτε

Stein et al. J Clin Oncol 2001

Yafi et al. BJU Int 2010

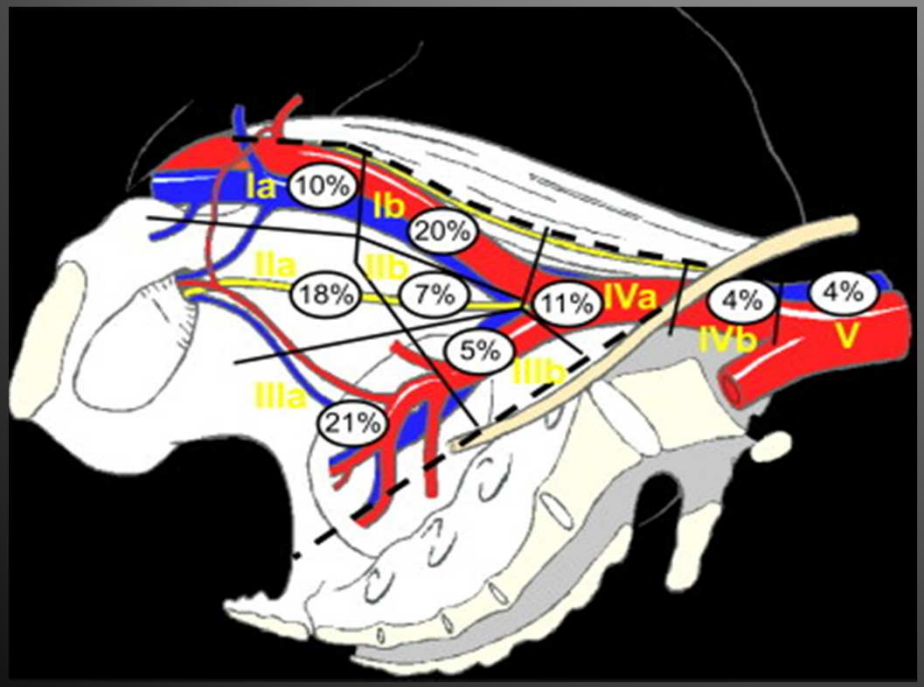
- Αμφοτερόπλευρα

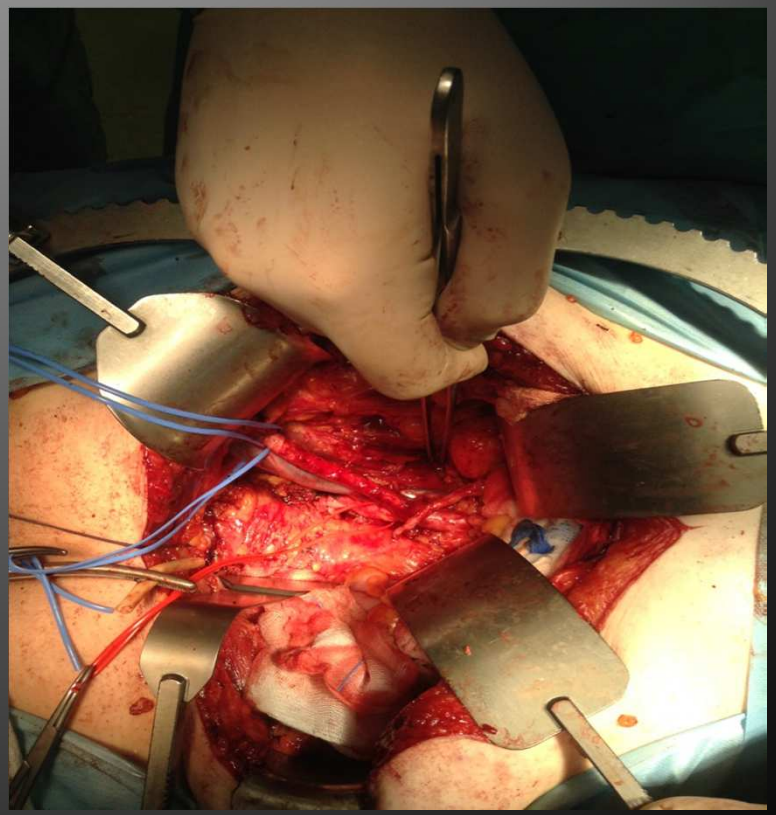
Mills et al. J Urol 2001

Τεχνική

Standard lymphadenectomy

All nodal tissue cranially up to, and including, the common iliac bifurcation, with the ureter being the medial border, and including the internal iliac, presacral, obturator fossa and external iliac nodes



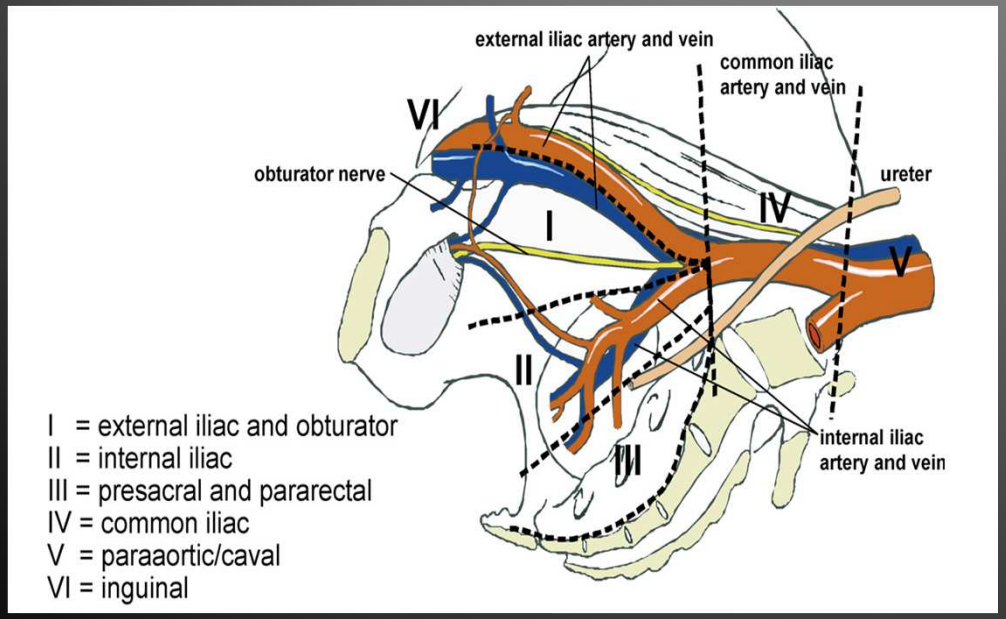


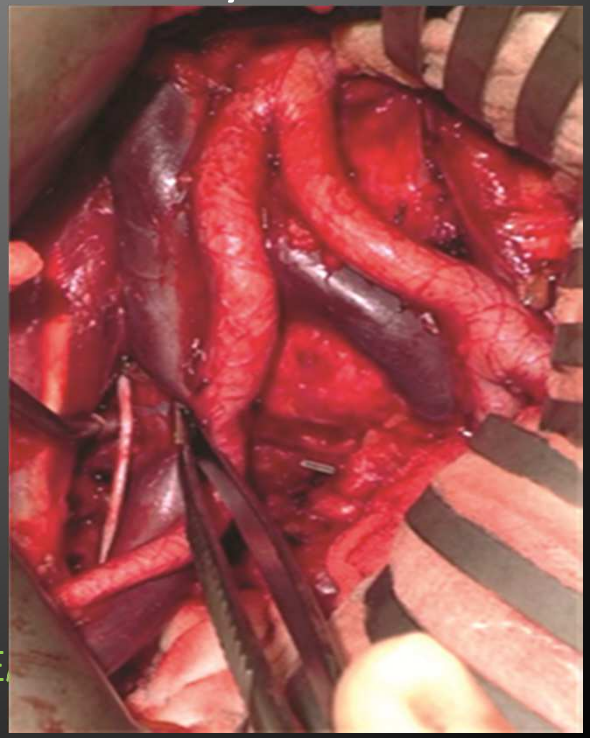
EAU Guidelines 2013

Τεχνική

Extended lymphadenectomy

Region of the aortic bifurcation and common iliac vessels medially to the crossing ureters. The lateral boarders are the genitofemoral nerves, caudally the circumflex iliac vein, the ligamentum lacunare and the lymph node of Cloquet, as well as the area described in the standard lymphadenectomy



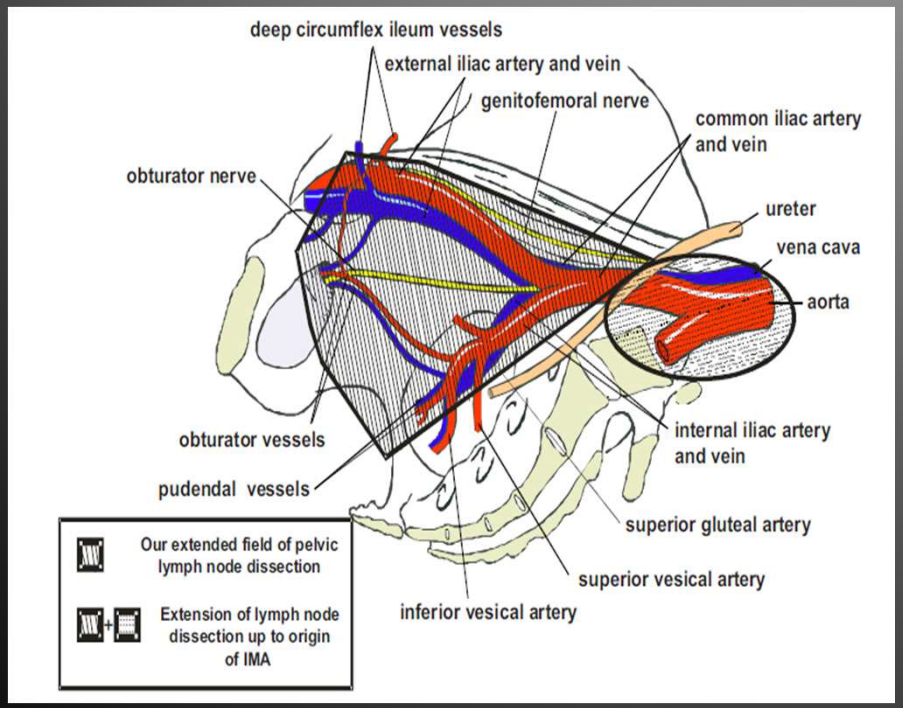


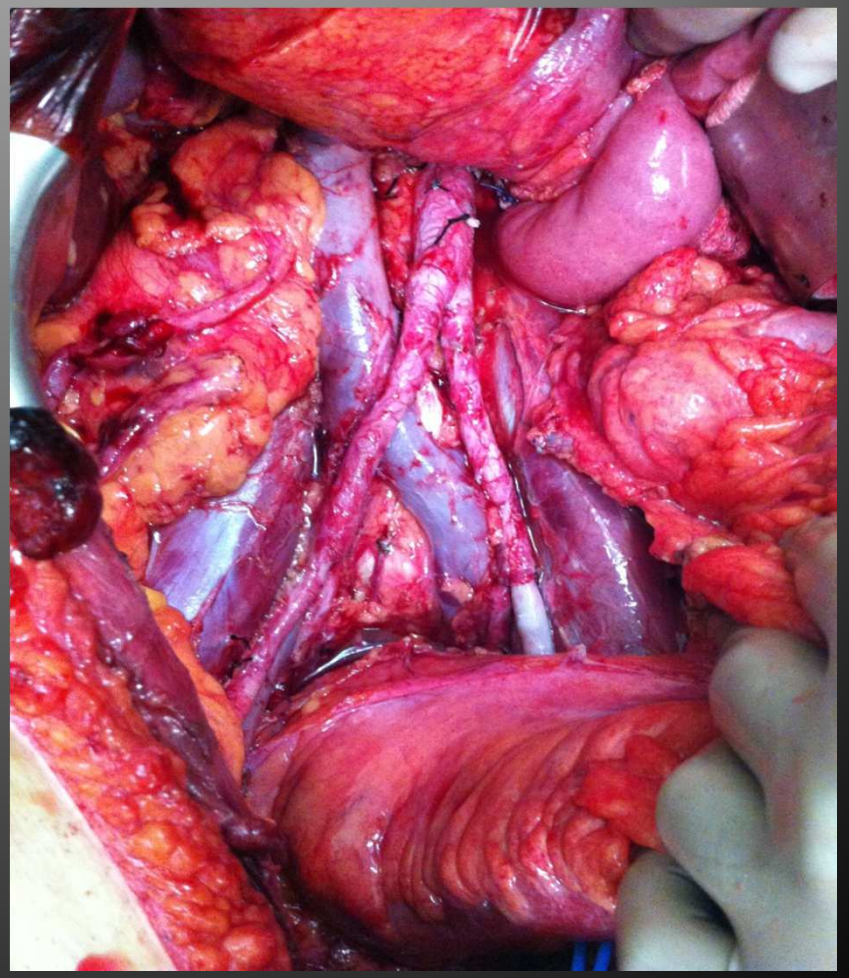
Τεχνική

EAU Guidelines 2013

superextended lymphadenectomy

extends cephalad to the level of the inferior mesenteric artery





Πόσους λεμφαδένες;

• 5έτη DFS	>16	65%	
•	<16	51%	Leissner BJU Int 2000
• 5ετή επιβίωση	>9	40%	
•	<9	30%	Herr et al J Urol 2002
• 5έτη CSS	>16	83%	
•	<16	72%	May et al Ann Surg Oncol 2011
• Συν. Επιβίωση	>24		Koppie et al Cancer 2006

Πόσους λεμφαδένες;

- Grossman et al 2003 RCT
  - 270 underwent RC; 24 no LND, 98 obturator only , 146 sPLND
  - 5-year survival rates: 33%, 46%, and 60%, respectively
  - Survival rate with <10 LNs removed was significantly lower than patients with >10 LNs removed (44% vs. 61%, respectively)

Grossman (2003) NEJM

Πόσους λεμφαδένες: το πρόβλημα

Anatomic Basis for Lymph Node Counts as Measure of Lymph Node Dissection Extent: A Cadaveric Study

Judson D. Davies, Christopher M. Simons, Nedim Ruhotina, Daniel A. Barocas, Peter E. Clark, and Todd M. Morgan

Using a cadaveric model and a single pathologist to eliminate many of the factors affecting the nodal yield in surgical series, we found substantial interindividual differences, with counts ranging from 10 to 53 nodes. These results have demonstrated the limited utility of lymph node count as a surrogate for the dissection extent and illustrated the challenges associated with implementing a surgical standard for minimum lymph node counts. UROLOGY 81: 358–363,

Extent of Pelvic Lymph Node Dissection During Radical Cystectomy: Where and Why!

Harry W. Herr

Likewise, counting numbers of nodes to define a "complete" PLND has its own inherent limitations, not the least of which is that node counts do not reflect whether the critical nodes were removed, and some patients have fewer nodes than others. In our institution, for example, where we routinely perform cystectomy in all but the most morbidly ill, the same standard PLND yields from 6 to 52 nodes in different patients

Extent of Pelvic Lymph Node Dissection During Radical Cystectomy: Where and Why!

Harry W. Herr

The anatomic boundaries of PLND are still hotly debated, largely because urologists have confused the definitions of node templates and have resorted to node counts as a proxy measure defining an adequate PLND. Neither is justified.

Αυξάνουν οι επιπλοκές;

- Poulsen 1998
  - No difference in mortality, lymphocele formation
- Leissner 2000, 2004
  - Lymphoceles and lymphoedema 2% >16 nodes, 1% <16 nodes
  - No centres found any significant adverse effects with eLND

Broesner (2004) BJUI

Ποιό είναι το δίδαγμα;

Lymph node dissection should be an integral part of cystectomy. An extended LND is recommended.	B

EAU Guidelines 2013

Radical cystectomy with extended lymphadenectomy is usually considered to be standard treatment for MIBC. Extended lymphadenectomy has been shown to be beneficial [III, A], and may be curative in patients with metastasis or micrometastasis to a few nodes. Progression-free survival and overall survival have been correlated with the number of lymph nodes removed during surgery.

ESMO Guidelines 2014