



UROSchool 2014



Ελληνικό Λιθιαστικό Σχολείο
Ουρολογίας

Η ΘΕΣΗ ΤΗΣ ΛΕΜΦΑΔΕΝΕΚΤΟΜΗΣ ΣΤΟ ΚΑΡΚΙΝΟ ΤΟΥ ΝΕΦΡΟΥ

ΙΩΑΝΝΗΣ ΒΑΡΚΑΡΑΚΗΣ
ΕΠΙΚΟΥΡΟΣ ΚΑΘΗΓΗΤΗΣ ΟΥΡΟΛΟΓΙΑΣ
ΣΙΣΜΑΝΟΓΛΕΙΟ ΝΟΣΟΚΟΜΕΙΟ
ΙΑΤΡΙΚΗ ΣΧΟΛΗ ΑΘΗΝΩΝ



Dept. Urology, Athens Medical School, J. Varkarakis





Σύγκριση συμφερόντων

- **Καμία**



Dept. Urology, Athens Medical School, J. Varkarakis





Ca ΝΕΦΡΟΥ & ΜΕΤΑΣΤΑΣΕΙΣ

- **Λεμφογενώς**
 - Περιπυλικοί, περικοιλικοί, περιαορτικοί
 - Ακανόνιστη λεμφαγγειακή απαγωγή
- **Αιματογενώς**
 - Συχνή χωρίς να υπάρχει εμφανής λεμφαγγειακή διασπορά





ΣΥΧΝΟΤΗΤΑ ΛΕΜΦΑΓΓΕΙΑΚΗΣ ΔΙΗΘΗΣΗΣ

- Συνολικά 13-21%
- Εξαρτάται
 - **Grade**
 - LG 6,3%
 - HG 26%
 - **Στάδιο**
 - T1-2 2-9%
 - T3a 46%
 - T3b-T4 62-66%





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ΕΛΛΗΝΙΚΟ ΔΙΔΑΚΤΙΚΟ ΣΧΟΛΕΙΟ
Ουρολογίας

Robson CJ et al: The results of radical nephrectomy for renal cell carcinoma.

J Urol 1969;101:297-301

2012

ΛΕΜΦΑΔΕΝΙΚΟΣ ΚΑΘΑΡΙΣΜΟΣ ΜΗ ΔΗΜΟΦΙΛΗΣ



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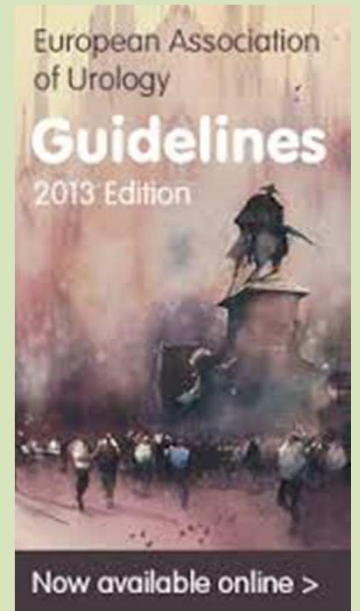




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ΕΛΛΗΝΙΚΟ ΔΙΔΡΑΚΤΙΚΟ ΣΧΟΛΕΙΟ
Ουρολογίας



Extended lymphadenectomy is not recommended since it does not appear to improve survival. It should be restricted to staging purposes with dissection of palpable and/or enlarged lymph nodes.

1b

A



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ΟΡΙΑ ΛΕΜΦΑΔΕΝΕΚΤΟΜΗΣ

- Εκτεταμένη
- Περιοχική

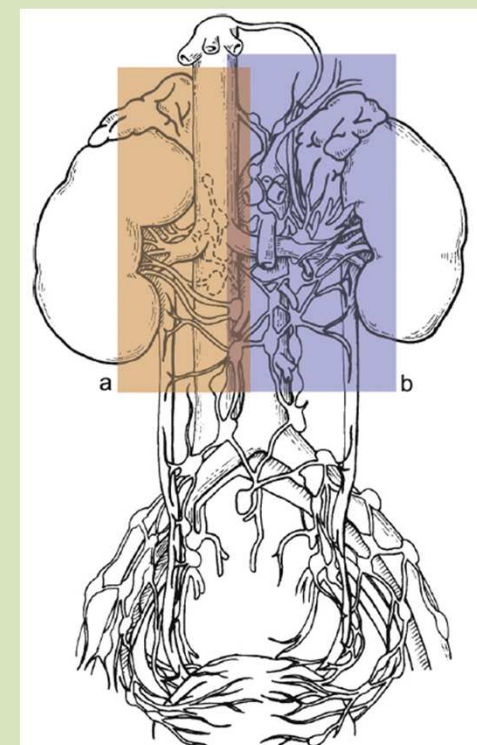
Lymph Node Dissection in Renal Cell Carcinoma

Umberto Capitanio^{a,}, Frank Becker^b, Michael L. Blute^c, Peter Mulders^d, Jean-Jacques Patard^e, Paul Russo^f, Urs E. Studer^g, Hein Van Poppel^h*



EUROPEAN UROLOGY 60 (2011) 1212–1220

No prospective study has compared lymph node metastasis detection, cancer control, and the procedural safety of performing limited versus extended LND in the RCC context. Moreover, a standardized template for LND has not been validated, and the majority of the studies available delineate only the presence or absence of a nonstandardized, surgeon-related LND. Even EORTC 30881 could not



Ασυνήθη πλάνα λεμφαγγειακής απαγωγής

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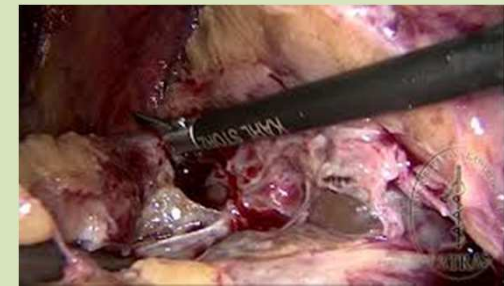
ΤΕΧΝΙΚΕΣ ΔΥΣΚΟΛΙΕΣ - ΕΠΙΠΛΟΚΕΣ

Lymph Node Dissection in Renal Cell Carcinoma



Umberto Capitanio^{a,}, Frank Becker^b, Michael L. Blute^c, Peter Mulders^d, Jean-Jacques Patard^e, Paul Russo^f, Urs E. Studer^g, Hein Van Poppel^h*

EUROPEAN UROLOGY 60 (2011) 1212–1220



shown that LND does not statistically increase the rate of complications [3,47,51–53]. Only a slightly higher risk of surgical bleeding was evidenced in patients who also underwent LND [3,47,51–53]. Therefore, the morbidity associated with retroperitoneal LND during nephrectomy appears to be acceptable, although the majority of studies reporting a similar rate of complications with or without LND relied on a limited LND. Patient selection, absence of



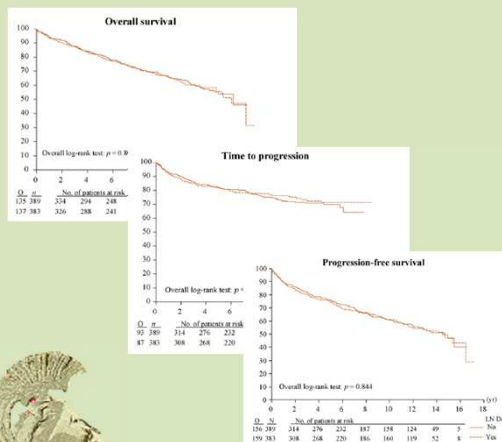
ΠΕΡΙΣΣΟΤΕΡΕΣ Nx ΕΛΑΧΙΣΤΑ ΕΠΕΜΒΑΤΙΚΑ

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ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ: ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ σε cT1-2N0M0

Radical Nephrectomy with and without Lymph-Node Dissection: Final Results of European Organization for Research and Treatment of Cancer (EORTC) Randomized Phase 3 Trial 30881

Jan H.M. Blom^{a,*}, Hein van Poppel^b, Jean M. Maréchal^c, Didier Jacqmin^d, Fritz H. Schröder^e,
Linda de Prijck^f, Richard Sylvester^f, for the EORTC Genitourinary Tract Cancer Group



772 ασθενείς τυχαιοποιήθηκαν

- 382 Nx με ΛΦΚ
- 389 Nx χωρίς ΛΦΚ

4% είχαν + ΛΦ σε cN0M0

Καμμία διαφορά στην επιβίωση,
πρόοδο

Level 1b

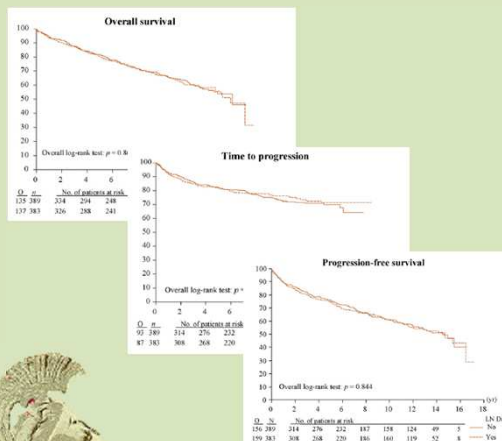


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ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ: ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ

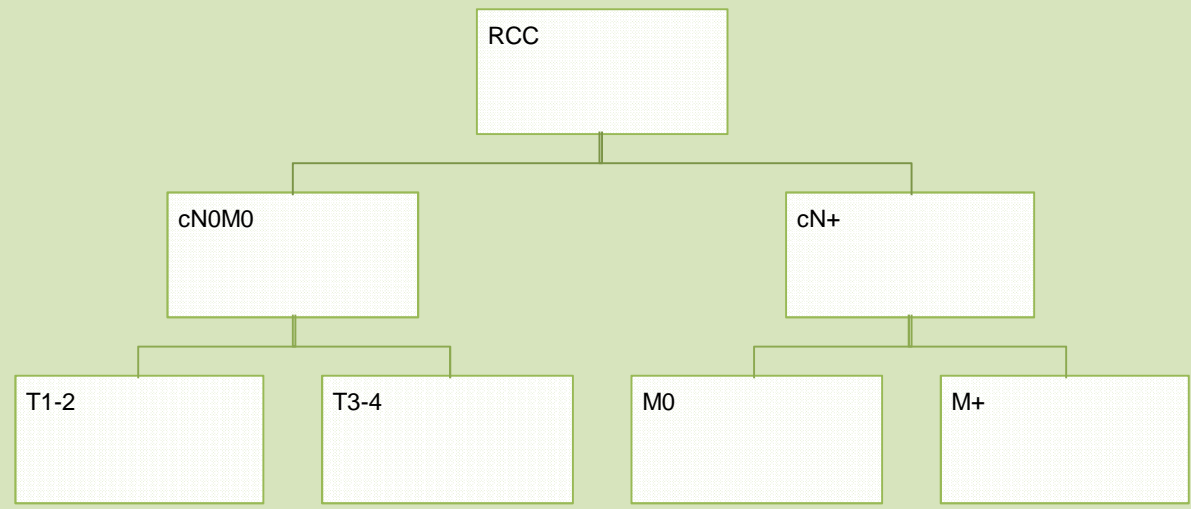
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- Χωρίς δεδομένα για template και αριθμό ΛΦ
- Όλα τα στάδια μαζί χωρίς διαχωρισμό (T1-T3)
- Συγκάλυψη σημαντικών διαφορών μεταξύ T1-2 και T3-T4



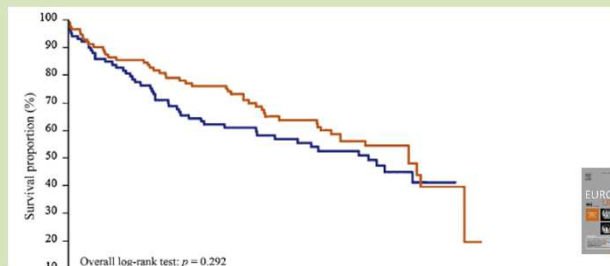


ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ: ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ σε cT3-4N0M0

Systematic Review of Adrenalectomy and Lymph Node Dissection in Locally Advanced Renal Cell Carcinoma

Hendrika J. Bekema^a, Steven MacLennan^b, Mari Imamura^b, Thomas B.L. Lam^{b,c,*}, Fiona Stewart^d, Neil Scott^e, Graeme MacLennan^d, Sam McClinton^c, T.R. Leyshon Griffiths^f, Andreas Skolarikos^g, Sara J. MacLennan^b, Richard Sylvester^h, Börje Ljungbergⁱ, James N'Dow^{b,c}

EUROPEAN UROLOGY 64 (2013) 799–810



Radical Nephrectomy with and without Lymph-Node Dissection: Final Results of European Organization for Research and Treatment of Cancer (EORTC) Randomized Phase 3 Trial 30881

Jan H.M. Blom^{a,*}, Hein van Poppel^b, Jean M. Maréchal^c, Didier Jacqmin^d, Fritz H. Schröder^e, Linda de Prijck^f, Richard Sylvester^g, for the EORTC Genitourinary Tract Cancer Group

Subgroup analysis for cT3

- @5 years LND group had **15% better survival-NS**
- **Better survival curves across the 15 y period**
- The lack of SS maybe because the trial **not powered** to address this question.





ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ:ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ

J Urol. 1991 Nov;146(5):1224-7.

What are the benefits of extended dissection of the regional renal lymph nodes in the therapy of renal cell carcinoma.

Herrlinger A1, Schrott KM, Schott G, Sigel A.

Better OS with LND

J Urol. 1982 Jun;127(6):1090-1.

Lymphadenectomy in renal adenocarcinoma.

Siminovitch JP, Montie JE, Straffon RA.

Urol Clin North Am. 1980 Oct;7(3):705-9.

The role of lymphadenectomy in the management of RCC

Peters PC, Brown GL.

Same OS with LND

Nishinohon J Urol 1989;51:577-81

The therapeutic value of lymph node dissection for renal cell carcinoma.

Yamashita Y, Ariyoshi A, Sakamoto K.

Worse OS with LND

Study sample small

None adjusted for important prognostic covariates





Systematic Review of Oncological Outcomes Following Surgical Management of **Localised Renal Cancer**

Steven MacLennan^a, Mari Imamura^a, Marie C. Lapitan^b, Muhammad Imran Omar^a, Thomas B.L. Lam^{a,c}, Ana M. Hilvano-Cabungcal^b, Pam Royle^d, Fiona Stewart^a, Graeme MacLennan^e, Sara J. MacLennan^a, Steven E. Canfield^f, Sam McClinton^c, T.R. Leyshon Griffiths^g, Börje Ljungberg^h, James N'Dow^{a,c,*}

UCAN Systematic Review Reference Group and the EAU Renal Cancer Guideline Panel



EUROPEAN UROLOGY 61 (2012) 972-993

the adrenal gland. It remains unclear whether complete lymph node dissection has any role in the management of localised RCC due to large inconsistencies in limited data, and therefore on currently available evidence it is best not to offer it to patients. Future research efforts must aim to rectify this





Systematic Review of Adrenalectomy and Lymph Node Dissection in **Locally Advanced Renal Cell Carcinoma**

Hendrika J. Bekema^a, Steven MacLennan^b, Mari Imamura^b, Thomas B.L. Lam^{b,c,*}, Fiona Stewart^d, Neil Scott^e, Graeme MacLennan^d, Sam McClinton^c, T.R. Leyshon Griffiths^f, Andreas Skolarikos^g, Sara J. MacLennan^b, Richard Sylvester^h, Börje Ljungbergⁱ, James N'Dow^{b,c}

EUROPEAN UROLOGY 64 (2013) 799–810



Conclusions: There is insufficient evidence to draw any conclusions on oncologic outcomes for patients having concomitant LND or ipsilateral adrenalectomy compared with patients having RN alone for cT3–T4N0M0 RCC. The quality of evidence is generally low and the results potentially biased. Further research in adequately powered trials is needed to answer these questions.



Η ΛΕΜΦΑΔΕΝΟΠΑΘΕΙΑ ΕΙΝΑΙ ΚΑΚΟΣ ΠΡΟΓΝΩΣΤΙΚΟΣ ΠΑΡΑΓΩΝ

LACK OF RETROPERITONEAL LYMPHADENOPATHY PREDICTS SURVIVAL OF PATIENTS WITH METASTATIC RENAL CELL CARCINOMA

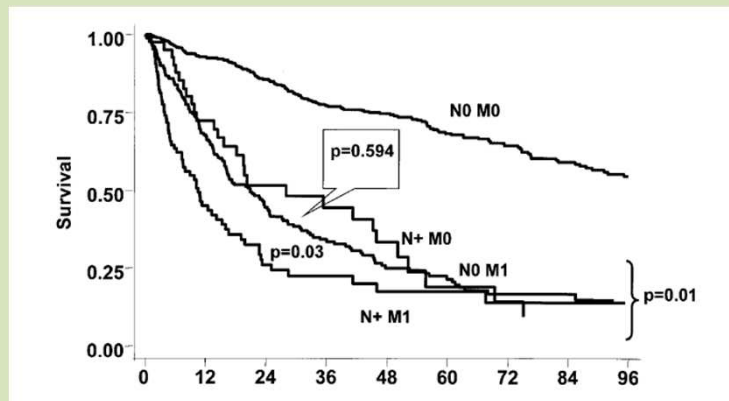
JAMES R. VASSELLI, JAMES C. YANG, W. MARSTON LINEHAN, DONALD E. WHITE, STEVEN A. ROSENBERG AND McCLELLAN M. WALTHER*

Λεμφαδενοπάθεια κακός προγνωστικός παράγων ακόμα και σε M+

RENAL CELL CARCINOMA WITH RETROPERITONEAL LYMPH NODES: ROLE OF LYMPH NODE DISSECTION

ALLAN J. PANTUCK, AMNON ZISMAN, FREDRICK DOREY, DEBBY H. CHAO, KEN-RYU HAN, JONATHAN SAID, BARBARA J. GITLITZ, ROBERT A. FIGLIN AND ARIE S. BELLDEGRUN

Η λεμφαδενοπάθεια μόνο έχει το ίδιο κακή πρόγνωση με σπλαχνικές μεταστάσεις μόνο



ΟΓΚΟΣ (+) ΛΕΜΦΑΔΕΝΩΝ ΩΣ ΠΡΟΓΝΩΣΤΙΚΟΣ ΠΑΡΑΓΩΝ

Trinh et al. Node positive renal cell carcinoma in the absence of distant metastases: **prediction of cancer specific mortality in a population based cohort**. BJU Int 2012;110



Cancer specific mortality in patients with N1M0 disease differs according to **number and percentage of positive nodes**

Capitanio U et al. The extent of lymphadenopathy does affect cancer specific survival in pathologically T4 renal cell carcinoma. Urologia 2012;79:109



Advantage in cancer specific mortality in 44 pt undergoing extended LND with T4 renal cancer
Risk of **death** increased with volume of positive nodes and **decreased with the volume of nodes removed.**





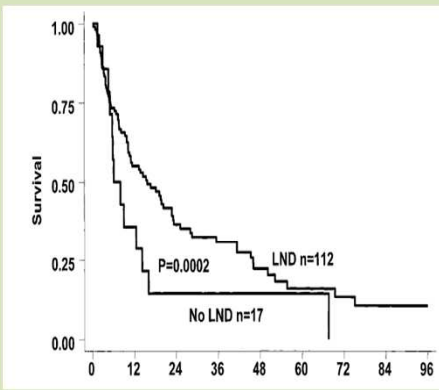
ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ: ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ cN+

RENAL CELL CARCINOMA WITH RETROPERITONEAL LYMPH NODES: ROLE OF LYMPH NODE DISSECTION

ALLAN J. PANTUCK, AMNON ZISMAN, FREDRICK DOREY, DEBBY H. CHAO, KEN-RYU HAN, JONATHAN SAID, BARBARA J. GITLITZ, ROBERT A. FIGLIN AND ARIE S. BELLDEGRUN

From the Departments of Urology, Medicine and Pathology and Laboratory Medicine, University of California School of Medicine, Los Angeles, California

Vol. 169, 2076–2083, June 2003



additional morbidity but it confers no survival advantage. In node positive cases lymph node dissection can also be performed safely but it is associated with improved survival and a trend toward an improved response to immunotherapy.

Conclusions: Regional lymph node dissection is unnecessary in patients with clinically negative lymph nodes since it offers extremely limited staging information and no benefit in terms of decreasing disease recurrence or improving survival. In patients with positive lymph nodes lymph node dissection is associated with improved survival when it is performed in carefully selected patients undergoing cytoreductive nephrectomy and postoperative immunotherapy. When lymph nodes are present, they should be resected when technically feasible.





ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ: ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ cN+

Can a Durable Disease-Free Survival be Achieved With Surgical Resection in Patients With Pathological Node Positive Renal Cell Carcinoma?

Scott E. Delacroix, Jr.,* Brian F. Chapin,* Jaclyn J. Chen, Graciela M. Noguerras-Gonzalez, Pheroze Tamboli, Surena F. Matin and Christopher G. Wood†

From the Departments of Urology (SED, BFC, JJC, SFM, CGW) Biostatistics (GMNG) and Pathology (PT), The University of Texas M.D. Anderson Cancer Center, Houston, Texas



Vol. 186, 1236-1241, October 2011

Favorable features

- 68pt T1-4N1-2M0
 - @5y OS 37%
 - @5y DSS 39%
 - 51% @ 4mt M+
- PS 0
 - 1+LN
 - Papillary
 - No sarcoma

Conclusions: Nephrectomy with lymph node dissection can provide a durable disease-free survival in a proportion of patients with regionally advanced renal cell carcinoma and limited lymph node metastases.





ΠΟΣΟΙ ΛΕΜΦΑΔΕΝΕΣ ΚΑΤΑ ΤΗΝ ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ



Terrone et al.
The number of lymph-nodes
examined and staging accuracy in
RCC.
BJU Int 2003;91(1):37

The proportion of tumors classified as **pN+**
**increased with the number of lymph
nodes examined.** In RCC, **> 12 lymph
nodes** need to be assessed for **optimal
staging.**





ΔΥΣΚΟΛΙΑ ΠΡΟΕΓΧΕΙΡΗΤΙΚΟΥ ΣΧΕΔΙΑΣΜΟΥ

• ΑΠΕΙΚΟΝΙΣΤΙΚΟΣ ΕΛΕΓΧΟΣ

– Οχι ακριβής

- Ψευδώς + (<60%)
- Ψευδώς – (4%)
- Only 42% of enlarged nodes was + for cancer

Studer UE et al. Enlargement of regional lymph nodes in renal cell carcinoma is often not due to metastases,
J Urol 1990 ;144:243-5

– Sentinel – experimental

– For micrometastatic Dx no method available (PET, mMRI)





Renal Lymph Nodes for Tumor Staging

Appraisal of 871 Nephrectomies With Examination of Hilar Fat

Vikas Mehta, MD; Kumaran Mudaliar, MD; Ritu Ghai, MD; Marcus L. Quek, MD; John Milner, MD; Robert C. Flanigan, MD; Maria M. Picken, MD, PhD



Results.—Lymph nodes were recovered in 333 of 871 patients (38%): hilar in 125 patients, nonhilar in 137 patients, and hilar and nonhilar in 71 patients. Patients with positive lymph nodes ($n = 87$) were younger, had larger primary tumors, and had lymph nodes of average size, as well as a higher pT stage, nuclear grade, and rate of metastases. Metastases were seen only in grossly identified lymph nodes (65% hilar, 16% nonhilar); all microscopic nodes were negative. Even with the microscopic examination of fat, hilar lymph nodes were recovered in only 22.5% of patients. A nonhilar route of node metastasis was suspected in 40 patients.

Conclusions.—Only grossly identifiable lymph nodes, both hilar and nonhilar, were positive for metastases. Although microscopic examination of the hilar fat increased the number of lymph nodes recovered, the identification rate of these nodes was low (22.5%), and such microscopic nodes were invariably negative. Hence, microscopic examination of the hilar fat may be unnecessary.

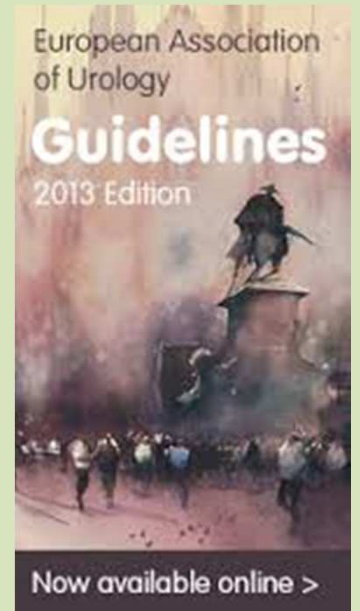




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Extended lymphadenectomy is not recommended since it does not appear to improve survival. It should be restricted to staging purposes with dissection of palpable and/or enlarged lymph nodes.

1b

A



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Ουρολογίας



ΕΥΧΑΡΙΣΤΩ

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