





Η ΘΕΣΗ ΤΗΣ ΛΕΜΦΑΔΕΝΕΚΤΟΜΗΣ ΣΤΟ ΚΑΡΚΙΝΟ ΤΟΥ ΝΕΦΡΟΥ

ΙΩΑΝΝΗΣ ΒΑΡΚΑΡΑΚΗΣ ΕΠΙΚΟΥΡΟΣ ΚΑΘΗΓΗΤΗΣ ΟΥΡΟΛΟΓΙΑΣ ΣΙΣΜΑΝΟΓΛΕΙΟ ΝΟΣΟΚΟΜΕΙΟ ΙΑΤΡΙΚΗ ΣΧΟΛΗ ΑΘΗΝΩΝ











Σύγκρουση συμφερόντων

• Καμία









Ca ΝΕΦΡΟΥ & ΜΕΤΑΣΤΑΣΕΙΣ

- Λεμφογενώς
 - Περιπυλικοί, περικοιλικοί, περιαορτικοί
 - Ακανόνιστη λεμφαγγειακή απαγωγή
- Αιματογενώς
 - Συχνή χωρίς να υπάρχει εμφανήςλεμφαγγειακή 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%







UROSchool 2014



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

J Urol 1969;101:297-301

2012 ΛΕΜΦΑΔΕΝΙΚΟΣ ΚΑΘΑΡΙΣΜΟΣ ΜΗ ΔΗΜΟΦΙΛΗΣ

SURGICAL ONCOLOGY

ORIGINAL ARTICLE - UROLOGIC ONCOLOGY

Decreasing Rates of Lymph Node Dissection During Radical

Max Kates, BA, Hugh J. Lavery, MD, Jonathan Brajtbord, BA, David Samadi, MD, and Michael A. Palese, MD

Department of Urology, Mount Sinai Medical Center, New York, NY

Background. The utility of lymph node dissection (LND) during radical nephrectomy for renal cell carcinoma (RCC) continues to be controversial, yet its use by urologists in the United States is unknown. We analyzed the incidence of and trends in LND from a large, nationally representa-

tive cancer registry.

Methods. Using the Surveillance, Epidemiology, and End Results registry we identified 37,279 patients with RCC who underwent radical nephrectomy from 1988 to 2005. LND was defined as a surgeon removing >5 nodes; however, sensitivity tests were performed using cutoffs of ≥3 and ≥1 nodes. We analyzed changes in LND rates over time and used multivariable logistic regression to predict those who underwent LND

Results. Of the 37.279 patients with RCC, 2,463 (6.6 %) received a LND. There was a gradual decline in LND beginning in 1988 that accelerated after 1997, with the period of 1998–2005 having significantly decreased odds of LND compared with the period 1988–1997 (odds ratio IOR1: 0.65: 95 % confidence interval 195 % CII: 0.59–0.71). This decline was driven primarily by a 63 % reduction in LND rates among localized tumors (p < .001). Conclusions. There has been a significant decline in LND rates during radical nephrectomy for localized kidney cancer over the past 7 years. In contrast to prior estimates, very few urologists in the United States are removing ≥5 nodes during lymph node dissection for RCC.

For patients with renal cell carcinoma (RCC).

© Society of Surgical Oncology 2012 First Received: 8 July 2011 M. A. Palese, MD e-mail: Michael Palese @ MountSinai.org

Published online: 20 April 2012

prognosis, with 5 year and 10 year survival rates of 5 to 30 % and 0 to 5 %, respectively. The role of lymph node dissection (LND) in the surgical management of RCC has been the topic of debate, and there is currently no consensus on its use within the urologic community. While recent EAU Guidelines suggest LND should only be used for staging purposes, the AUA guidelines have remained equivocal and called for more prospective trials.23 Potential benefits of LND include more accurate staging and a decreased risk of local recurrence, and retrospective data have also suggested that it may impact survival.4-7 However, a recently published prospective randomized trial conducted by the EORTC found that LND imparted no survival benefit.

There are currently no formal guidelines regarding the extent or nodal template of LND at the time of radical nephrectomy, and the use of LND by urologists remains unknown 9 Several trends occurring in the medical community may have altered the rates of LND. First, the rapid growth of minimally invasive techniques in the past decade may have had unintended consequences on operative

aparoscopic surgery for

therapeutic benefit, urol

to do an extended LND

may adversely impact bidity. O As a result, s increased diffusion of would cause lymph LND, and higher ra LNDs performed.10 separate billing code f tomy), and in the cont

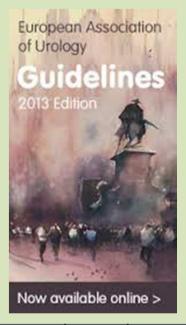












Extended lymphadenectomy is not recommended since it does not appear to improve survival. 1b It should be restricted to staging purposes with dissection of palpable and/or enlarged lymph nodes.

Α









ΟΡΙΑ ΛΕΜΦΑΔΕΝΕΚΤΟΜΗΣ

- Εκτεταμένη
- Περιοχική

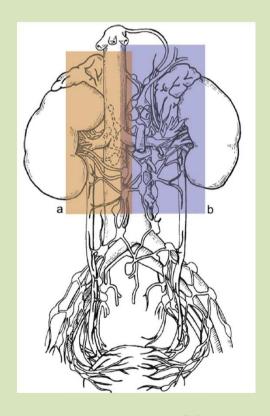
Lymph Node Dissection in Renal Cell Carcinoma

EUROPEAN

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 Dept. Urology, Athens Medical School, J. Varkarakis









ΤΕΧΝΙΚΕΣ ΔΥΣΚΟΛΙΕΣ - ΕΠΙΠΛΟΚΕΣ

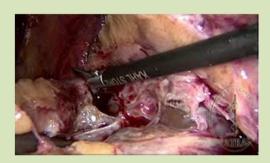
Lymph Node Dissection in Renal Cell Carcinoma



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 Νχ ΕΛΑΧΙΣΤΑ ΕΠΕΜΒΑΤΙΚΑ





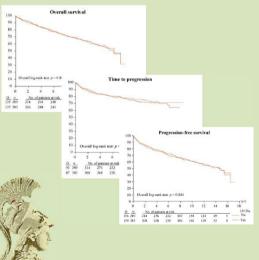


ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ: ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ σε cT1-2N0M0

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 Νχ με ΛΦΚ
- •389 Νχ χωρίς ΛΦΚ

4% είχαν + ΛΦ σε cN0M0

Καμμία διαφορά στην επιβίωση, πρόοδο Level 1b

Dept. Urology, Athens Medical School, J. Varkarakis





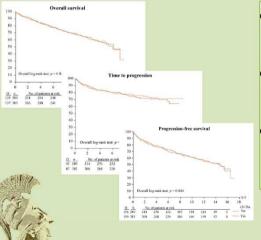


ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ: ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ

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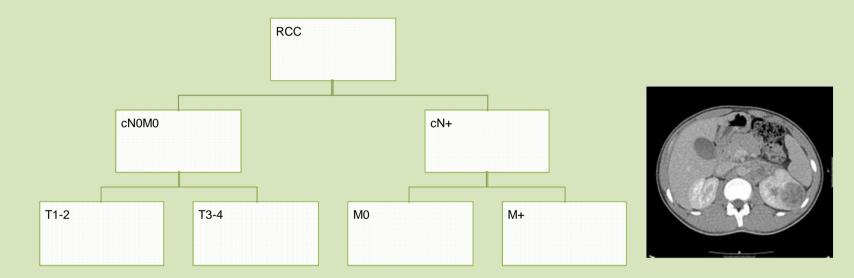
- Χωρίς δεδομένα για template και αριθμό ΛΦ
- Όλα τα στάδια μαζί χωρίς διαχωρισμό (T1-T3)
- Συγκάληψη σημαντικών διαφορών μεταξύ T1-2 και T3-T4





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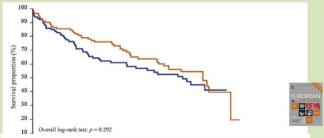
ΛΕΜΦΑΔΕΝΕΚΤΟΜΗ: ΘΕΡΑΠΕΥΤΙΚΟ ΑΠΟΤΕΛΕΣΜΑ σε cT3-4N0M0

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, Börie Liungberg ⁱ. Iames 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 ^f, 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.

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

Lymphadenectomy in renal adenocarcinoma.

Siminovitch JP, Montie JE, Straffon RA.

Better OS with LND

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

Nishinihon 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







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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 Ljungberg ⁱ, 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

0.75
0.50
0.25
0.00
0.12 24 36 48 60 72 84 96

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









ΟΓΚΟΣ (+) ΛΕΜΦΑΔΕΝΩΝ ΩΣ ΠΡΟΓΝΩΣΤΙΚΟΣ ΠΑΡΑΓΩΝ

UROLOGIA

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

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

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

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+

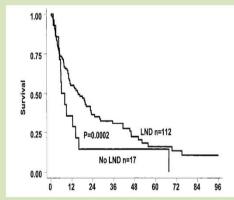
RENAL CELL CARCINOMA WITH RETROPERITONEAL LYMPH NODES: ROLE OF LYMPH NODE DISSECTION

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. Nogueras-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

- 68pt T1-4N1-2M0
- @5y OS 37%
- @5y DSS 39%



Vol. 186, 1236-1241, October 2011

- 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.

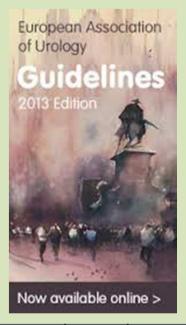












Extended lymphadenectomy is not recommended since it does not appear to improve survival. 1b It should be restricted to staging purposes with dissection of palpable and/or enlarged lymph nodes.

Α







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ΕΥΧΑΡΙΣΤΩ



