Μερική νεφρεκτομή : μακροχρόνια ογκολογικά αποτελέσματα

ΜΙΧΑΛΑΚΗΣ Γ. ΑΝΑΣΤΑΣΙΟΣ
Χειρουργός Ουρολόγος
251 Γενικό Νοσοκομείο Αεροπορίας

ΑΠΟΛΥΤΕΣ ΕΝΔ

- Μονόνεφρος
- Αμφοτερόπλευρη νόσος
- Οικογενής νεφρικός όγκος
- Χρόνια νεφρική ανεπάρκεια

Νεφρεκτομή

αιμοκάθαρση

15 – 25% των νεφρικών μαζών με μέγεθος μικρότερο των 4 εκ. είναι καλοήθεις

Duchene et al, Urology 2003

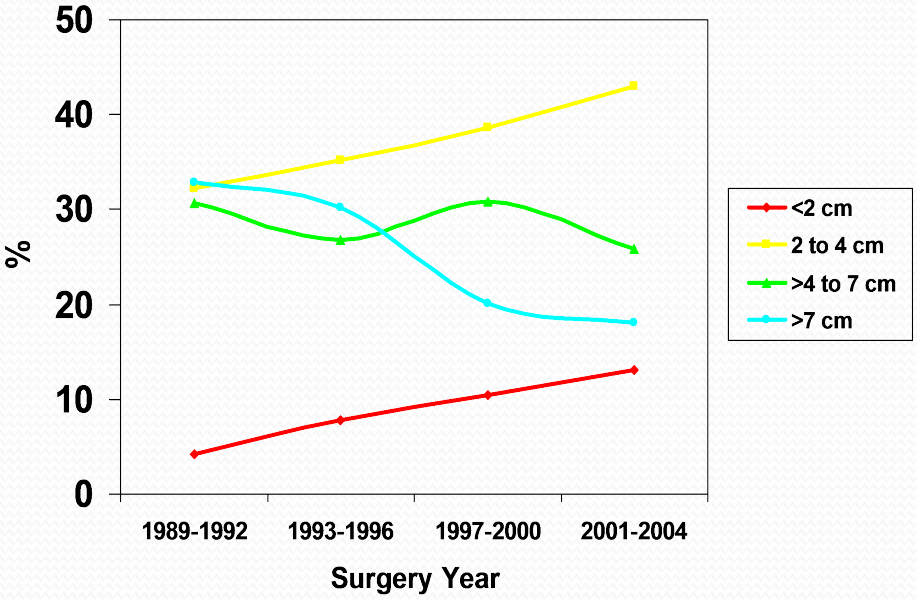
Snyder et al, J Urol 2006

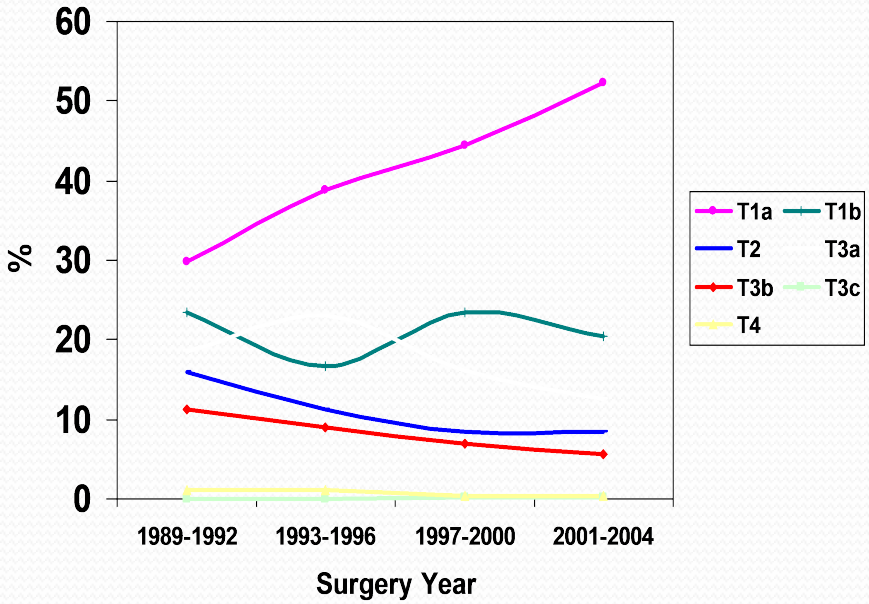
Srougi et al, Int Braz J Urol 2009

Xiong et al, Int J Urol, 2010

Tumor size and stage distribution according to year

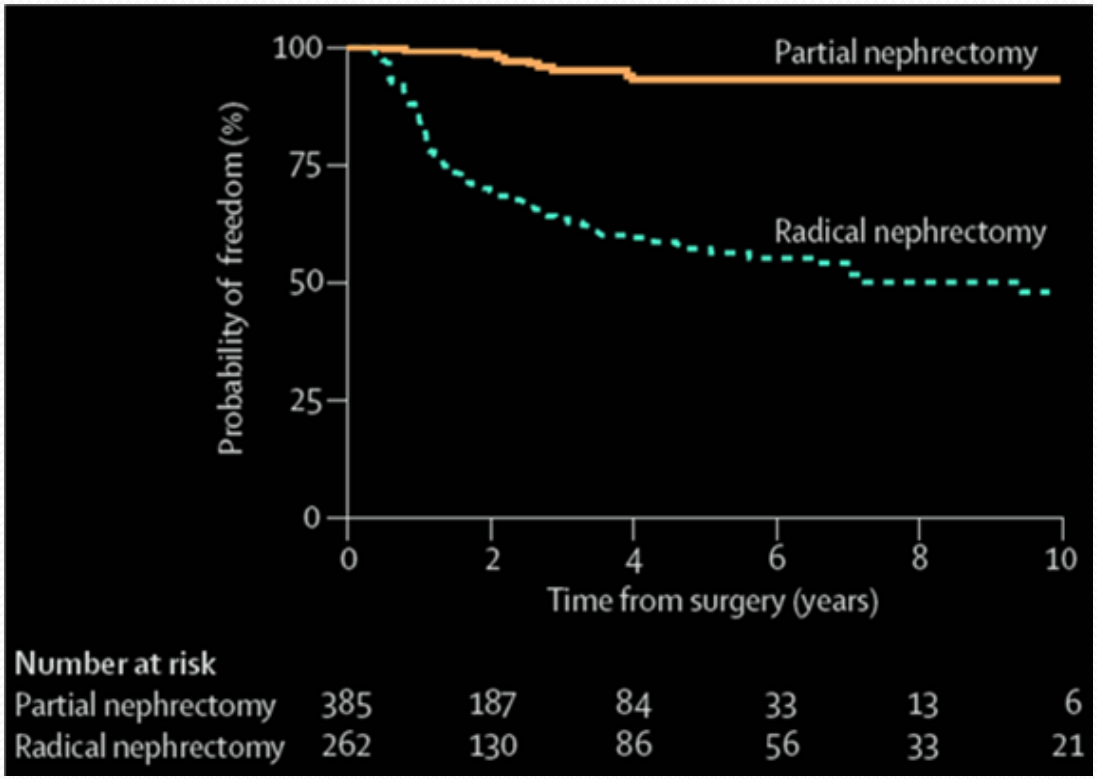
Russo et all, Cancer 2008





Probability of freedom from CKD (GFR<45mls/min) by type of surgery

Huang et al,
Lancet Oncology 2006



Impact of nephron-loss

Cleveland

RN associated with greater loss of renal function

- 25% increased risk of cardiac death
- 17% increased risk of all-cause death

Weight CJ et al, J Urol 2010

Mayo Clinic

- Decreased overall survival in comparison to partial nephrectomy

Thompson et al, J Urol 2008

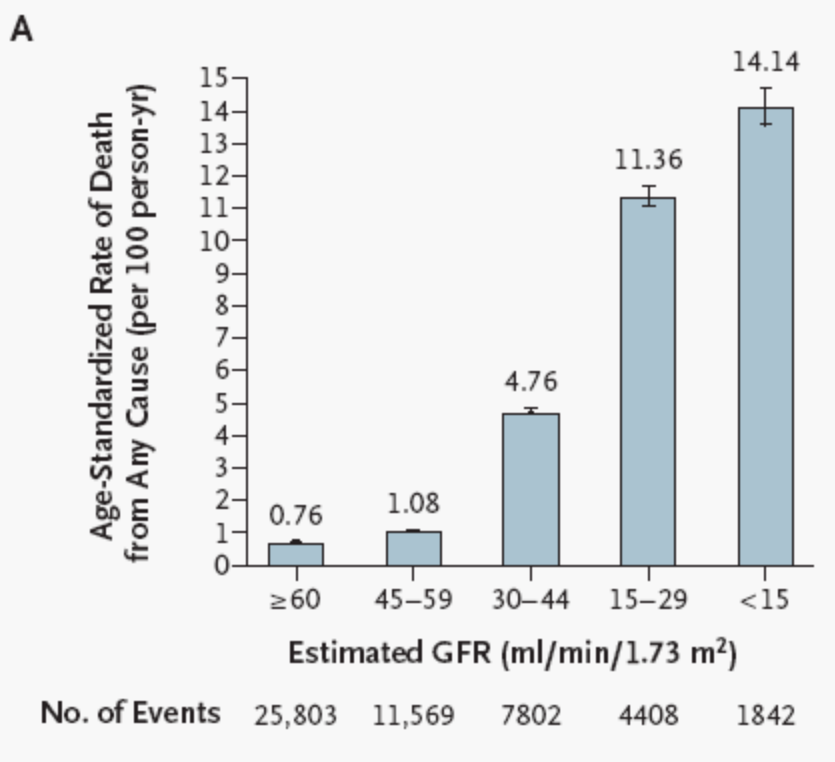
The NEW ENGLAND JOURNAL of MEDICINE

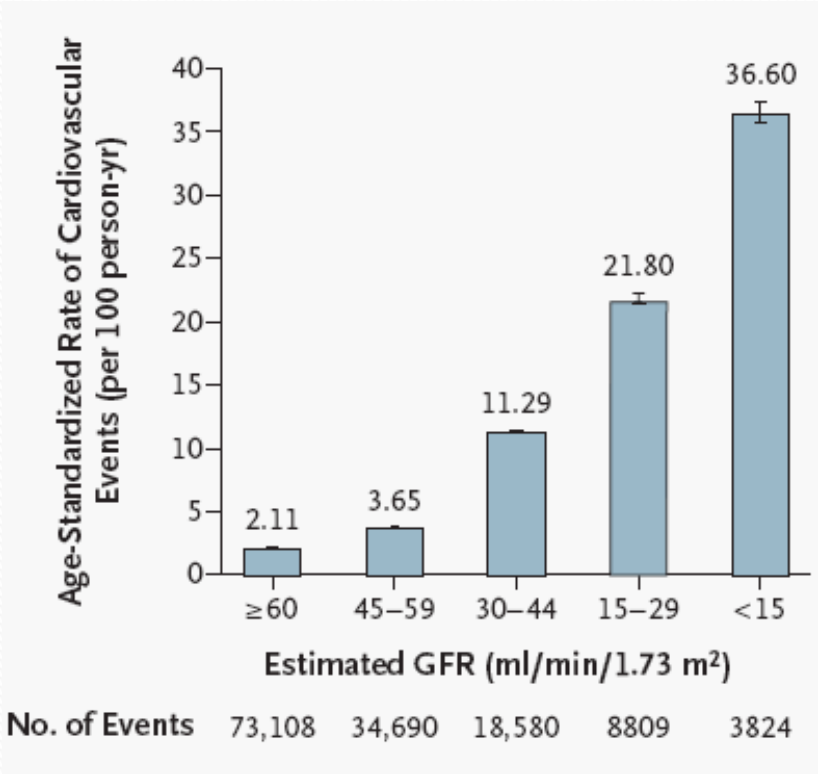
ORIGINAL ARTICLE

Chronic Kidney Disease and the Risks of Death, Cardiovascular Events, and Hospitalization

Alan S. Go, M.D., Glenn M. Chertow, M.D., M.P.H., Dongjie Fan, M.S.P.H., Charles E. McCulloch, Ph.D., and Chi-yuan Hsu, M.D.

N Eng J Med 2004; 351: 1296-305





Η πλειονότητα των ασθενών με νεφρικούς όγκους έχουν συνυπάρχουσα νεφρική δυσλειτουργία / βλάβη

- 10% ύπαρξη φυσιολογικού παρεγχύματος δίπλα από τον όγκο
- 60% παρουσίαζαν νεφρική παθολογία
- 30% νεφρική αρτηριοσκλήρωση

Bijol et al, 2006

Memorial Sloan-Kettering Cancer Center

- 26% παρουσίαζαν προεγχειρητικά GFR < 60ml/min/1,73m^2 με φυσιολογική απεικόνιση και των δύο νεφρών και φυσιολογική τιμή κρεατινίνης

Huang et al, 2006

Chronic Kidney Disease as a Risk Factor for Cardiovascular Disease and All-Cause Mortality: A Pooled Analysis of Community-Based Studies

DANIEL E. WEINER,* HOCINE TIGHIOUART,† MANISH G. AMIN,† PAUL C. STARK,† BONNIE MACLEOD,† JOHN L. GRIFFITH,† DEEB N. SALEM,‡ ANDREW S. LEVEY,* and MARK J. SARNAK*

**Division of Nephrology, †Department of Clinical Care Research, and ‡Division of Cardiology, Tufts-New England Medical Center, Boston, Massachusetts*

AHA Scientific Statement

Kidney Disease as a Risk Factor for Development of Cardiovascular Disease

A Statement From the American Heart Association Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention

Mark J. Sarnak, MD, Cochair; Andrew S. Levey, MD, Cochair; Anton C. Schoolwerth, MD, Cochair; Josef Coresh, MD, PhD; Bruce Cul
L. Lee Hamm, MD; Peter A. McCullough, MD, MPH; Bertram L. Kasiske, MD; E
Michael J. Klag, MD, MPH; Patrick Parfrey, MD; Marc Pfeffer, MD, PhD; Le
David J. Spinosa, MD; Peter W. Wilson, MD

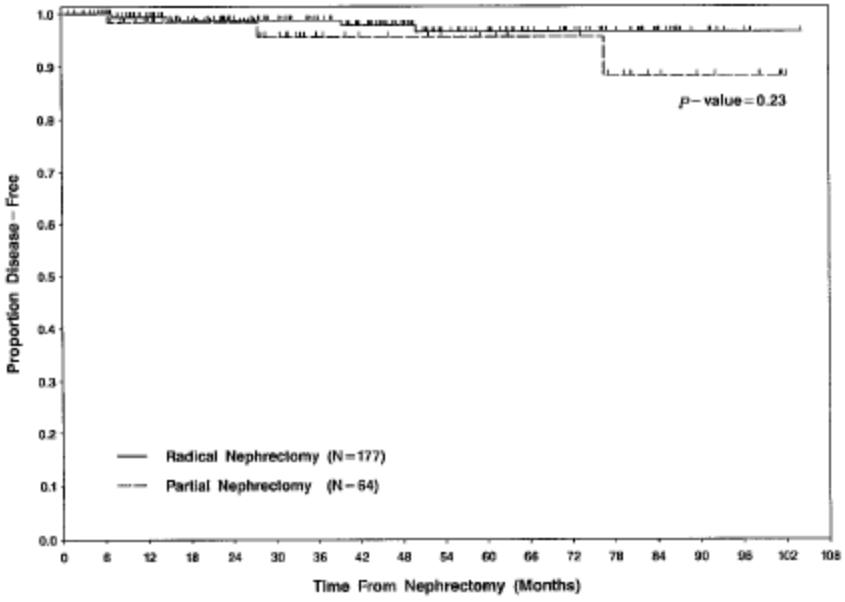
Evidence for increased cardiovascular disease risk in patients with chronic kidney disease

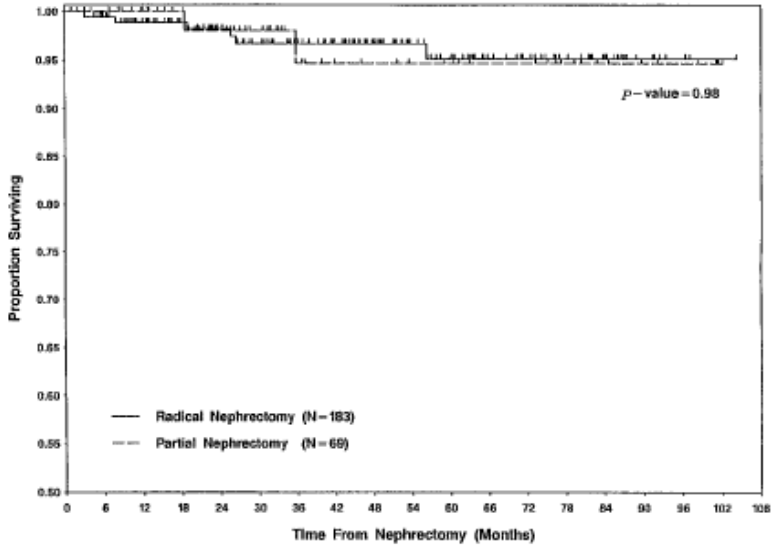
Josef Coresh[a], Brad Astor[a] and Mark J. Sarnak[b]

Kidney Function as a Predictor of Noncardiovascular Mortality

Linda F. Fried,* Ronit Katz,† Mark J. Sarnak,‡ Michael G. Shlipak,§ Paulo H.M. Chaves,‖ Nancy Swords Jenny,¶ Catherine Stehman-Breen,# Dan Gillen,** Anthony J. Bleyer,†† Calvin Hirsch,‡‡ David Siscovick,§§ and Anne B. Newman‖‖

Oncological outcome of PN vs RN for T1a renal cancer





Equivalent long term oncological outcome between PN and RN group (T1a RCC)

Lee et al, J Urol 2000

Radical vs Partial Nephrectomy for Small Renal Masses (<4 cm)

Oncological Efficacy

			5-year cancer-specific survival	
Study (center)	# patients undergoing RN/PN	Median f/u (months)	Radical Nephrectomy	Partial Nephrectomy
McKiernan et al, 2002 (MSKCC)	173/117	26	99	96
Lee et al, 2000 (MSKCC)	183/79	40	95	95
Lau et al, 2000 (Mayo Clinic)	164/164	47	97	98
Belldegrun et al, 1999 (UCLA)	125/108	74	91	98
Lerner et al, 1996 (Mayo Clinic)	209/185	52	89	89
Butler et al, 1995 (Cleveland Clinic)	42/46	48	97	100

5 year CSS for Radical Nephrectomy 89-99%

5 year CSS for Partial Nephrectomy 89-100%

Author	No of patients	Mean tumor size(cm)	5-yr CSS (%)	10-yr CSS (%)	Local recurrence (%)	Mean follow up (mo)
Steinbach et al	121	5,5	90	-	4,1	40
Moll et al	142	4.5	98	-	1,4	35
Lerner et al	185	4,1	89	77	5,9	44
Belldegrun et al	146	3,6	93	-	2,7	74
Herr et al	70	3,0	-	97	1,4	120
Hafez et al	485	3,4	92	-	3,2	47
Lee et al	79	2,5	95	-	0	40
Lau et al	164	3,3	98	-	3	41
Filipas et al	180	3,3	98	-	1,6	56
Delakas et al	118	3,4	97,3	96,4	3,9	102
Patard et al	314	2,5	97,8	-	0,8	62,5
Fergany et al	400	4,2	89	82	3,5	44
Becker et al	241	3,7	97,8	95,8	1,4	66
Pahernik et al	715	3	98,5	96,7	3,3	81
Pahernik et al	103[0]	4,2	89,6	76	0,1	96
Van Poppel et al	51	3	98,0	-	0	78

[0] solitary kidneys
CSS: cancer specific survival

Efficasy and safety in nephron sparing surgery
Int J Urol, 2010;17(4):314-26

Author	No of patients and pT stage	5-yr CSS (%)	10-yr CSS (%)	Local recurrence	Metastasis	Mean FU (mo)
Patard et al	314 (pT1a) 65 (pT1b)	97,8	-	0,8	2,4	51
Leibovich et al	91(30 pT1a, 60pT1b, 1 pT3a)	93,8	-	3,6	7,1	62,5
Mitchell et al	33(21pT1b, 12pT3a)	96,2	-	2,3	-	34
Carini et al	71(30pT1a, 31pT1b, 10pT3)	85,1	-	4,5	14,9	74
Dash et al	45(41pT1a and 4 pT3a)	80	-	2,2	-	14
Becker et al	69(62pT1b, 4 pT2, 3pT3a)	100	100	5,8	5,8	74
Peycelon et al	61(42pT1b, 12pT2,6 pT3a, 1 pT3b)	81	78	9,8	19,7	70,7
Joniau et al	67(13pT1a, 49pT1b, 1pT2, 4pT3a)	99	-	4	6	40,1

Studies assessing oncologic outcome following NSS in relation to tumor size >4 or <4cm

Outcomes of case series dealing with NSS for renal masses >7cm (pT2)

Author	Patients	Median follow up, mo	Overall survival at 5 years , %	Overall survival at 10 years , %	Median tumor size, cm
Long et al	49	13,1	94,5	70,9	8,7
Becker et al	91	28	88	-	8
Karellas et al	37	17	77	-	7,5
Breau et al	57	38	75	-	7,5
Jelders et al	29	54	84	-	8,5
Peycelon et al	16	70	66	-	8,4
Hafez et al	50	47	82	-	9,9

Λαπαροσκοπική μερική νεφρεκτομή : ογκολογικά αποτελέσματα

Author	Patients,n	Mean tumor size,cm	Mean follow up , mo	Local recurrence, %	Cancer specific survival, %
Propiglia et al	34	3,2	16	0	100
Gill et al	430	3,6	30	0	100
Bollens et al	39	3,2	15	0	100
Gill et al	771	2,7	15	1,4	99,3
Permpongkosoi et al	85	2,4	40	2,3	91,4
Lane and Gill	145	2,5	74,4	2,4	97

EORTC phase 3 trial 30904

Van Poppel H, Da Pozzo L, Albrecht W, Matveev V, Bono A, Borkowski A, Colombel M, Klotz L, Skinner E, Keane T, Marreaud S, Collette S, Sylvester R. A prospective, randomised EORTC intergroup phase 3 study comparing the oncologic outcome of elective nephron-sparing surgery and radical nephrectomy for low-stage renal cell carcinoma. Eur Urol. 2011 Apr;59(4):543-52. Epub 2010 Dec 22.

Only level one evidence *- stunning outcome!*

- *Prospective randomised multicenter*
- Period : 1992 -2003
- 541 tumours cT1-T2 with normal contralateral kidney
- Comparison between radical and partial nephrectomy
- 10-year overall survival 81.1% RN vs 75.7% NSS
- 12 deaths as a result of renal cancer (4 RN; 8 NSS)

European Urology Guidelines 2014

Recommendations	GR
Nephron-sparing surgery is recommended in patients with T1a tumours	A
Nephron-sparing surgery should be favoured over radical nephrectomy in patients with T1b tumours, whenever technically feasible	B

Conclusions	LE
Oncological outcomes for T1-T2a tumours are equivalent between laparoscopic and open radical nephrectomy	2a
Partial nephrectomy can be performed either with an open, pure laparoscopic or robot-assisted approach, based on surgeons expertise and skills	2b

National Trends in the Use of Partial Nephrectomy: A Rising Tide That Has Not Lifted All Boats

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Michael S. Cookson,† Sam S. Chang,‡ S. Duke Herrell,§ Joseph A. Smith, Jr.‖ and
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From the Department of Urologic Surgery (SGP, DFP, PEC, MSC, SSC, SDH, JAS, DAB), and the Center for Surgical Quality and Outcomes Research (DFP, DAB), Vanderbilt University Medical Center, Tennessee Valley Veterans Administration Health System (DFP), and Vanderbilt University School of Medicine (BP), Nashville, Tennessee

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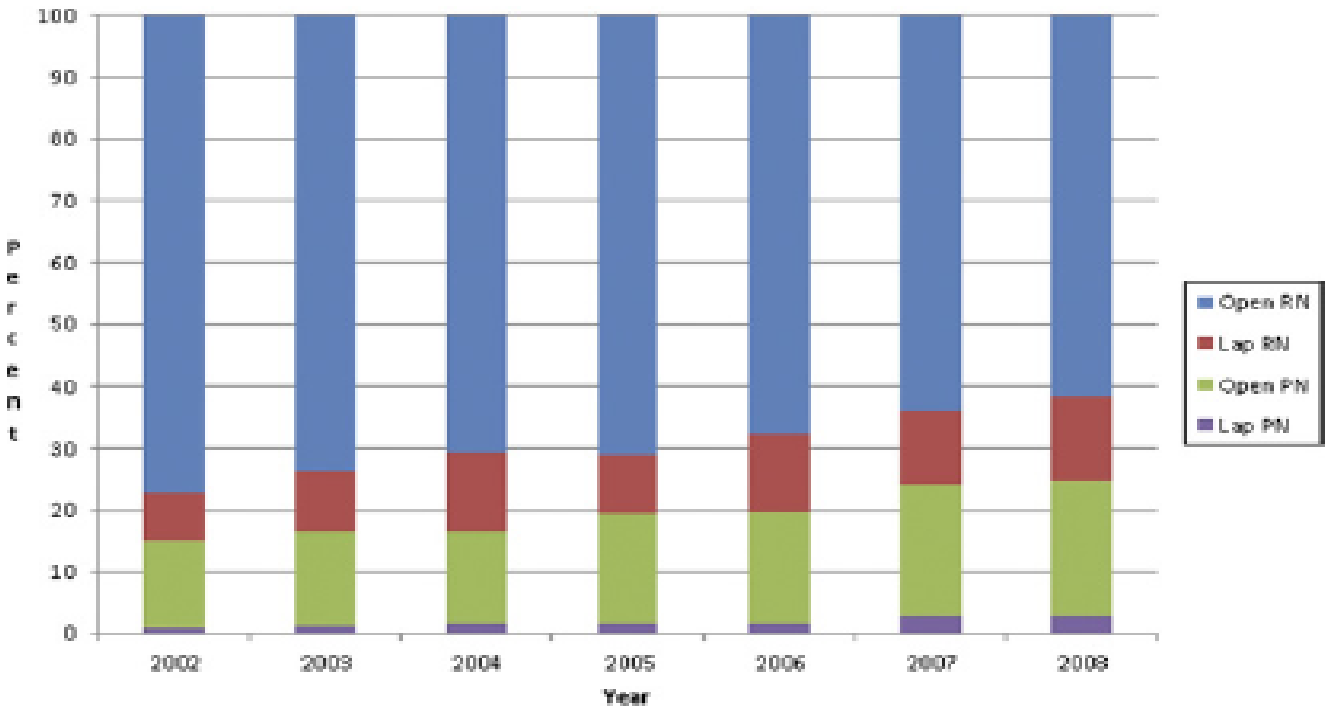
Popularity of partial nephrectomy?



Nephrectomy use by percentage from 2002 to 2008

ΣΥΜΠΕΡΑΣΜΑΤΑ

- Η μερική νεφρεκτομή παρουσιάζει ανάλογα ογκολογικά αποτελέσματα με την ριζική νεφρεκτομή
- Ανεξάρτητα με την τεχνική (ανοικτή , λαπαροσκοπική, ρομποτική) τα αποτελέσματα είναι ανάλογα
- Απαιτούνται μακροχρόνιες προοπτικές μελέτες που να καθορίσουν τυχόν στατιστικά σημαντικές διαφορές μεταξύ των διαφόρων μεθόδων
- Παρόλο που αποτελεί την επέμβαση εκλογής για όγκους κάτω των 4 εκ. το ποσοστό εφαρμογής της ειναι χαμηλό λόγω της ανάγκης εμπειρίας

ΕΥΧΑΡΙΣΤΩ