Conduta nas Pequenas Massas Renais (Observação, Cirurgia, Ablação)

Prof. Dr. Cássio Andreoni

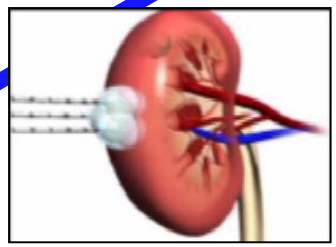
Professor Livre-Docente

Evolução Cirurgia Renal para Tumores

1990
Nefrec Radical Lap

1993
Nefrec Parcial Lap

2000



2003
Parcial
Robot

2009

2018

Pequenas Massas Renais

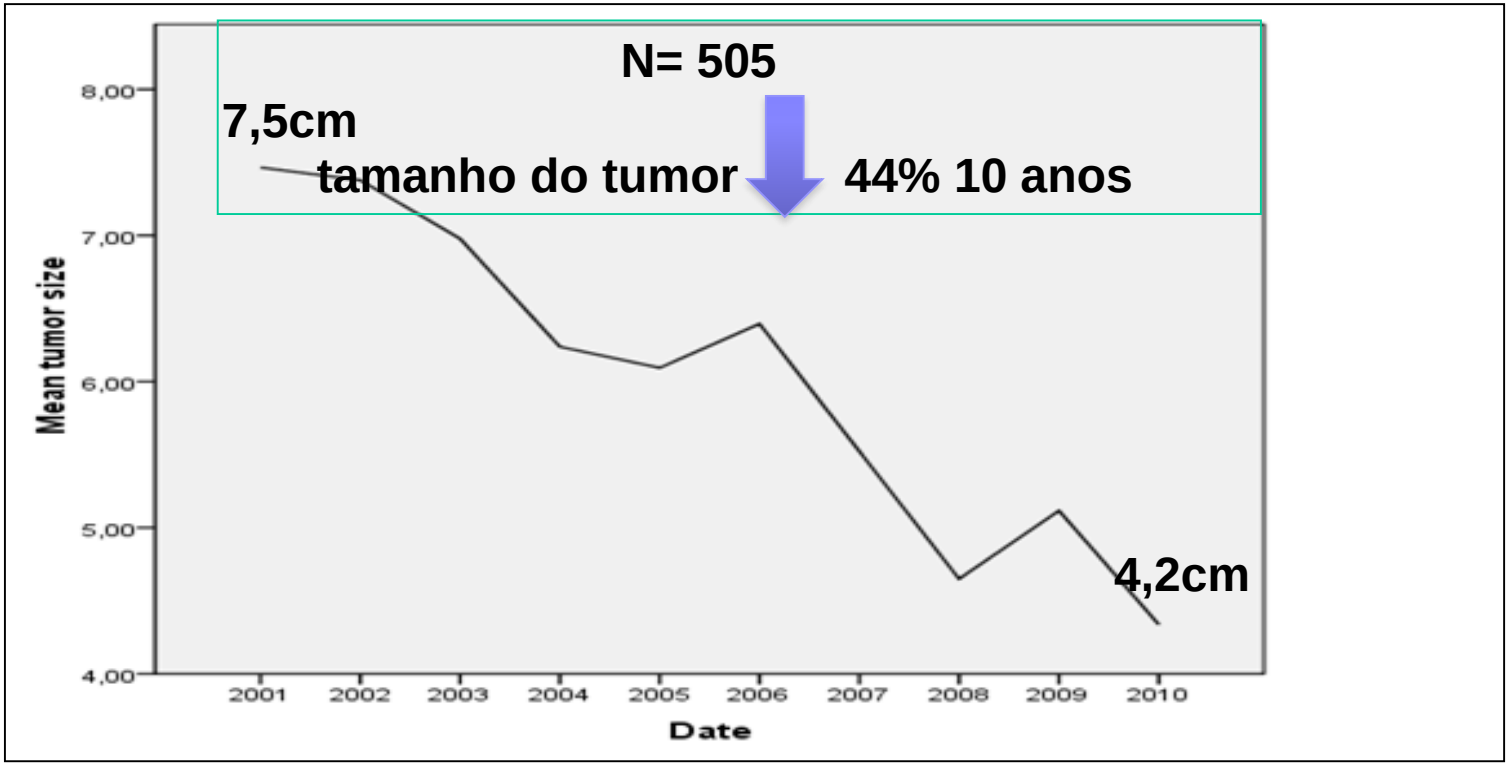
Tumores < 4 cm

Research Article

Practice Trends in the Surgical Management of Renal Tumors in an Academic Medical Center in the Past Decade

ISRN Endoscopy
Volume 2013, Article ID 945853, 5 pages

Matheus Tannus,[1,2] Fábio Sepúlveda,[1] Thomé Pinheiro,[1] and Cássio Andreoni[1]



Pequenas Massas Renais Observação

- Eur Urol Focus. 2017 Oct;3(4-5):340-351.
- **Active Surveillance in Small Renal Masses in the Elderly: A Literature Review.**
- **elderly, aged ≥70**
- **17 primary studies / 36495 patients**
- **4-26% rate of conversion to active treatment for active surveillance**
- **follow-up interval of up to 91.5 mo.**
- ***patient comorbidity and biological age versus the natural history of the individualized tumor biology***

JOURNAL OF ENDOUROLOGY
Volume 28, Number 4, April 2014

Pp. 487–492
DOI: 10.1089/end.2013.0148

Practical and Intuitive Surgical Approach Renal Ranking to Predict Outcomes in the Management of Renal Tumors: A Novel Score Tool

Matheus Tannus, MD, Suzan M. Goldman, PhD, and Cássio Andreoni, PhD

Tamanho

Endofitico x Exofitico

Hilar

Cortical x Medular

	0 pt	1pt	2pts	3pts	4pts
Size	<2cm	2-4cm	4-7cm	>7cm	-
Longitudinal location (A)	-	Lower pole	Mesorenal	Upper pole	-
Exophytic/Endophytic (B)	-	>50% Exophytic	<50% Exophytic	Completely endophytic	-
Extension of involvement of the renal parenchyma (C)	-	Limited to cortex	Reaches medullary	-	Exceeds medullary
Relation with the renal sinus (D)	-	Not reached	Peripheral	-	Central
Anterior / posterior	-	-	-	-	-

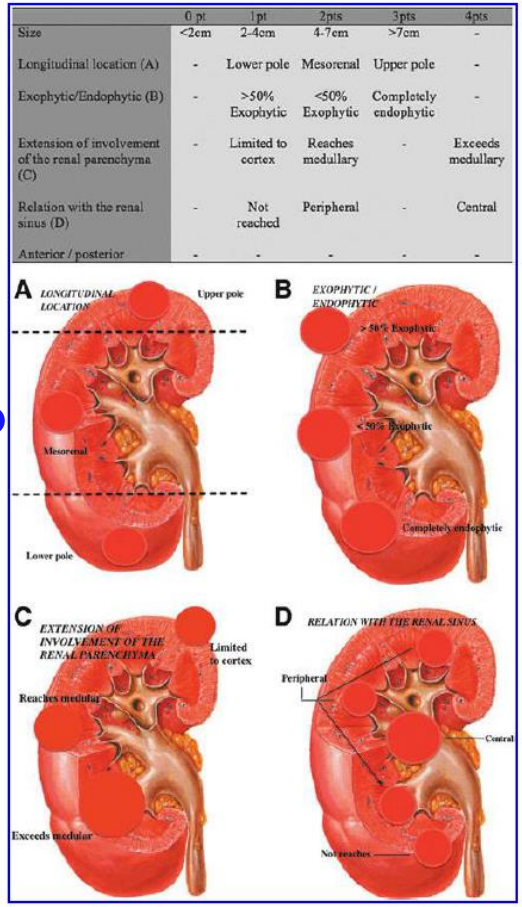


FIG. 1. Surgical Approach Renal Ranking.

Câncer de Rim

OPÇÕES DE CIRURGIA RENAL

1. Nefrectomia Radical (padrão)

2. Preservação Renal (padrão)
   A. Nefrectomia Parcial
      - Enucleação
      - Ressecção em cunha
      - Nefrectomia polar

   B. Ablação por agulha (opção)
      - Crioterapia
      - RadioFrequência

Research Article

Practice Trends in the Surgical Management of Renal Tumors in an Academic Medical Center in the Past Decade

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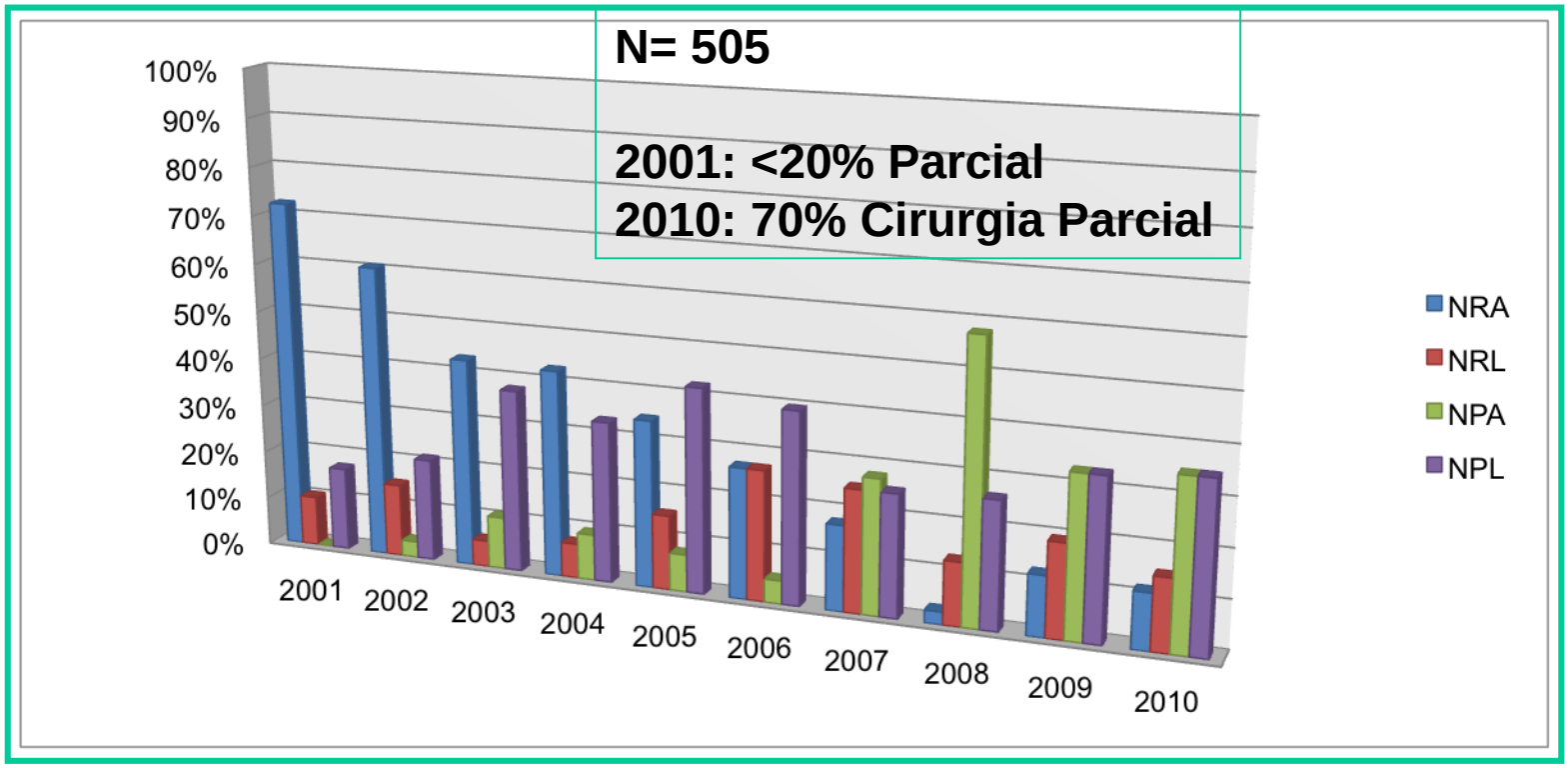
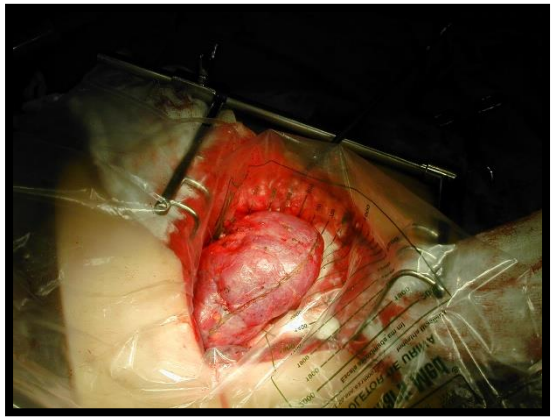
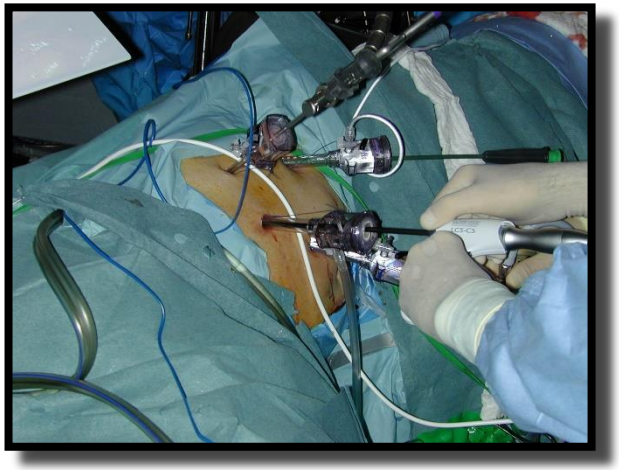


OPÇÕES DE VIA DE ACESSO

Aberta



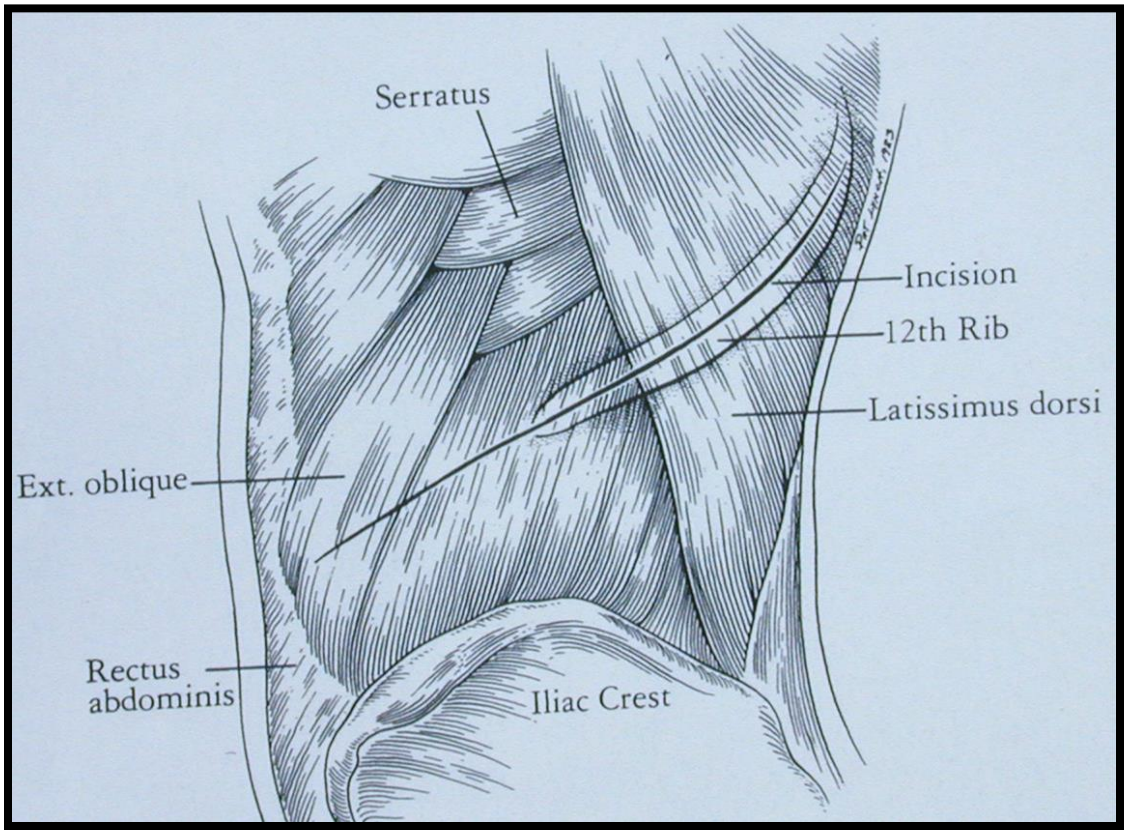
Laparoscópica

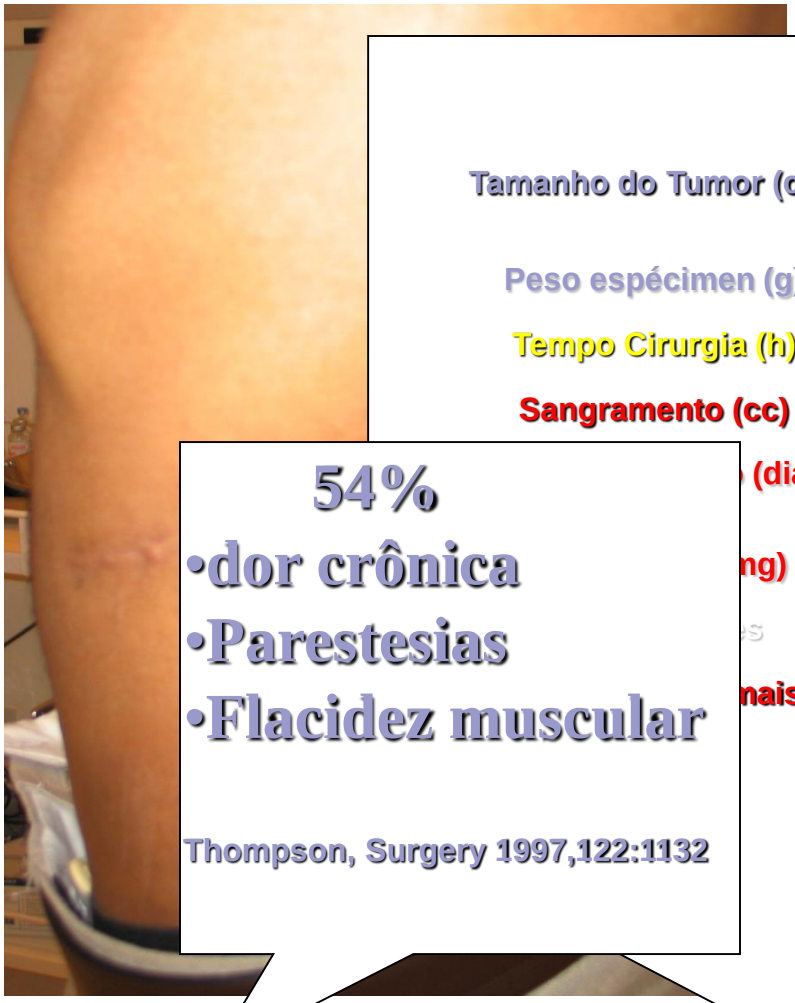


LOMBOTOMIA: A VILÃ...

Thompson GB, et al: Surgery, 1997; 122(6): 1132-6.

- <u>54%</u> submetido à lombotomia com sequela crônica: dor, flacidez ou parestesias.





	Laparoscópica (n=34)	Aberta (n=34)	P
Tamanho do Tumor (cm)	5	6.1	0.08
Peso espécimen (g)	604.6	637.8	0.93
Tempo Cirurgia (h)	3.1	3.1	0.94
Sangramento (cc)	97.4	370.3	<0.001
(dias)	1.4	5.8	<0.001
ng)	13.5	295	<0.001
s	13%	24%	0.54
nais	3.1	10	0.005

54%

- dor crônica
- Parestesias
- Flacidez muscular

Thompson, Surgery 1997,122:1132

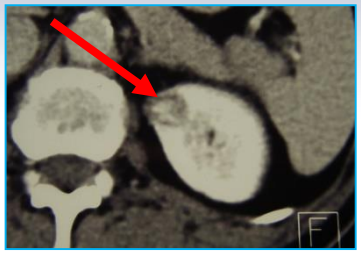
Gill, J Urol 2001;163: 1665

Aberta

Câncer de Rim

Tratamento – Estágio I

- T1a (Tumores até 4 cm)



  - Preservação renal
    - Nefrectomia parcial (padrão)
    - Ablação do tumor com agulha (radiofrequência e crioterapia) (opcional)
  - Nefrectomia Radical (padrão se preservação for técnicamente inviável)

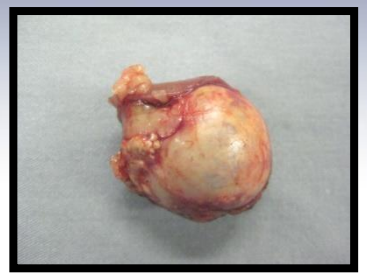
Guideline for Management of the Clinical T1 Renal Mass

Câncer de Rim
OPÇÕES DE CIRURGIA RENAL

2. Preservação Renal

A. Nefrectomia Parcial

- Enucleação



- Ressecção em cunha

- Nefrectomia polar

Câncer de Rim

Resultados Oncológicos

Radical x Parcial

Nefrec. Radical = Nefrec. Parcial

89-99% = 89-100%

Studies directly comparing cancer-specific survival in radical versus partial nephrectomy

Study (center)	Number of patients undergoing RN/PN	Median follow-up (mo)	5-Year cancer-specific suvival (%) RN	PN
McKiernan et al, 2002 (MSKCC) [21]	173/117	26	99	96
Lee et al, 2000 (MSKCC) [18]	183/79	40	95	95
Lau et al, 2000 (Mayo Clinic) [12]	164/164	47	97	98
Belldegrun et al, (UCLA) [15]	125/108	74	91	98
Lerner et al, 1996 (Mayo Clinic) [13]	209/185	52	89	89
Butler et al, 1995 (Cleveland Clinic) [16]	42/46	48	97	100

A.M. Nieder, S.S. Taneja / Urol Clin N Am 30 (2003) 529–542

Avaliação Função Renal e Cirurgia (EPM) – 1ano

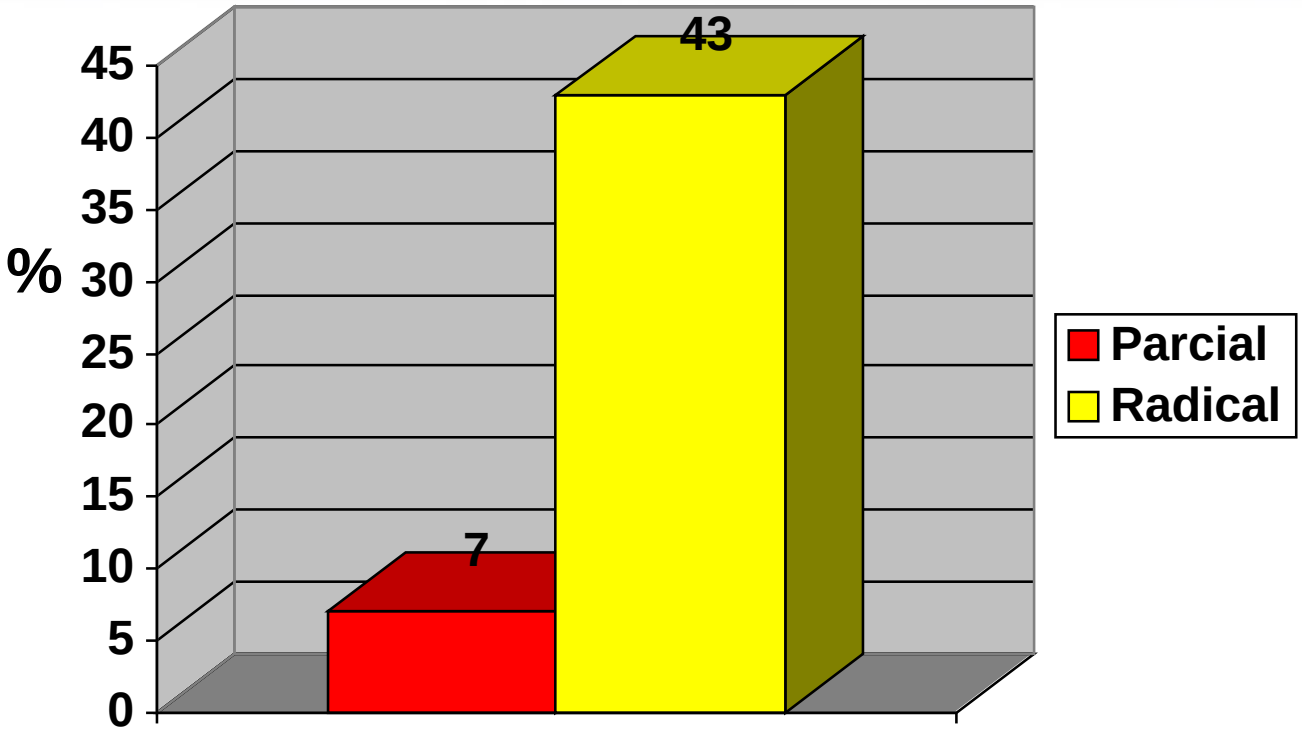
Tipo de cirurgia	Parcial	Radical	p
n	97	131	
TGF_0	85,6 ±29,9	76,1 ±30,4	0,061
TGF_{12}	78,3 ±26,1	62,71 ±23,5	0,010
Δ TGF	7,3 ±12,8	13,40 ±18,1	0,003
% de perda	**8,6**	**17,6**	

Krebs RK, Andreoni C. BJU Int)

www.nature.com/clinicalpractice/uro

Nephron-sparing surgery: the 'gold standard' treatment for small renal cortical tumors

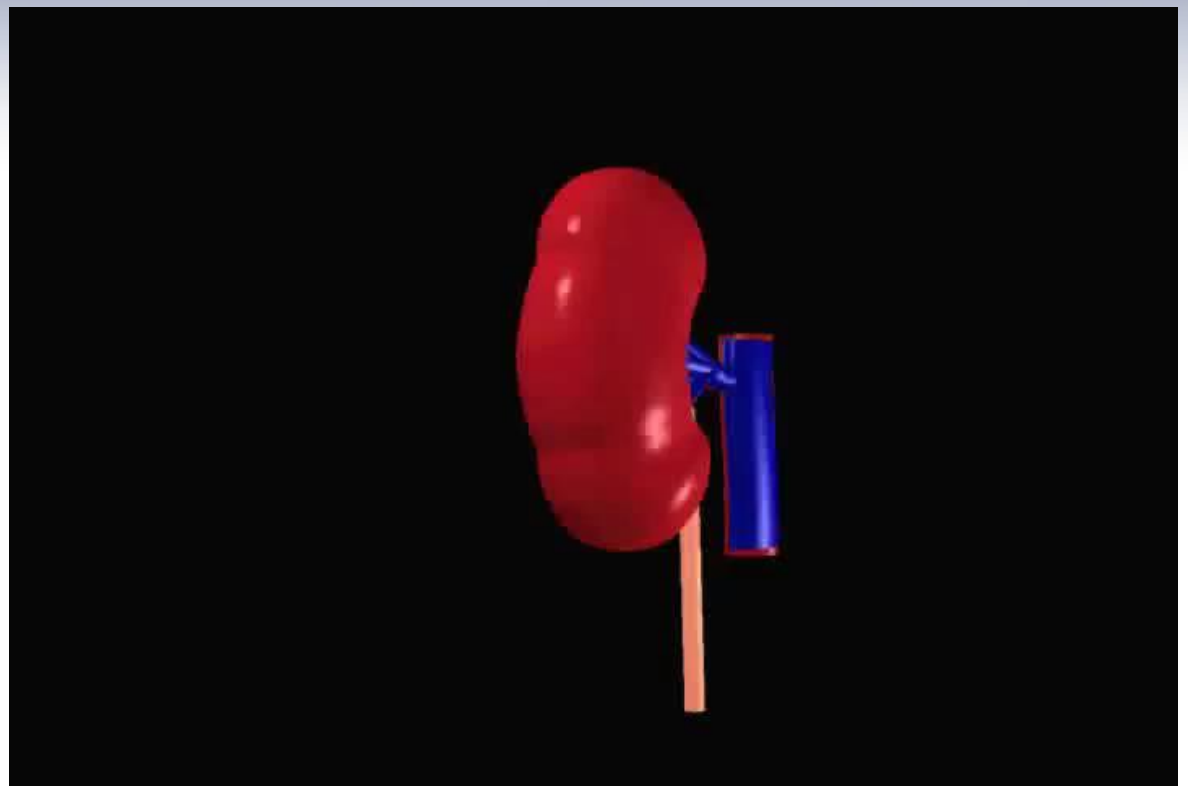
Risco de Insuf. Renal pós Nefrectomia



Risco Filtração Glomerular < 45ml/min em 5 anos

Nefrectomia Parcial Laparoscópica

Imitação da técnica aberta

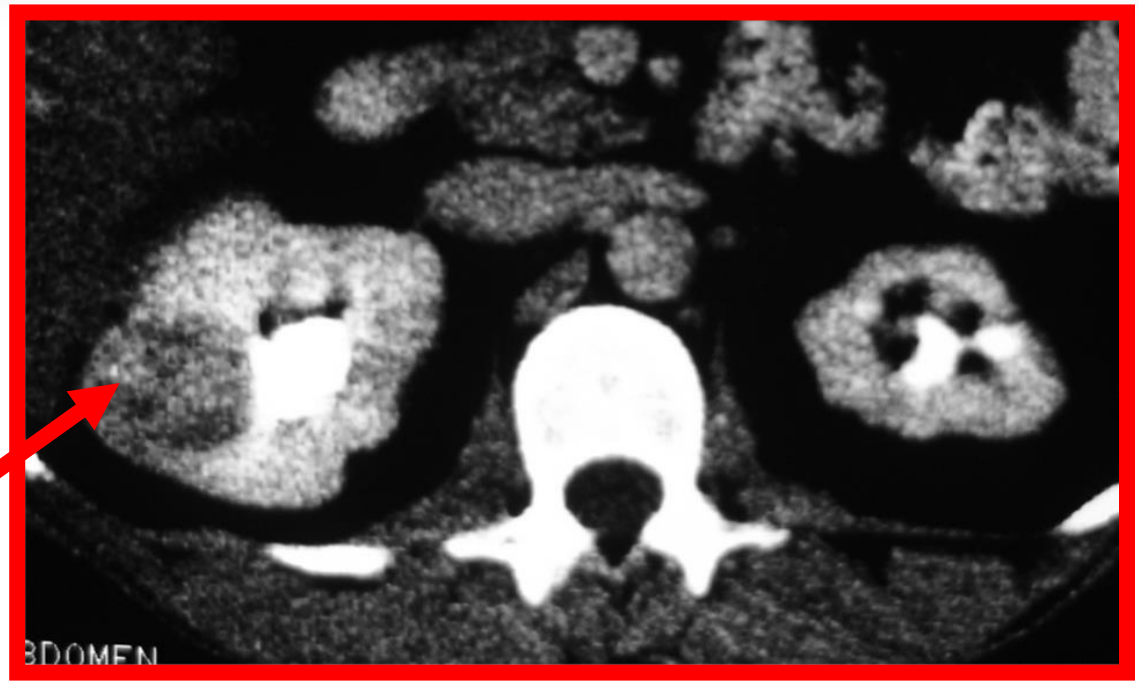


PLANO Novembro 2000

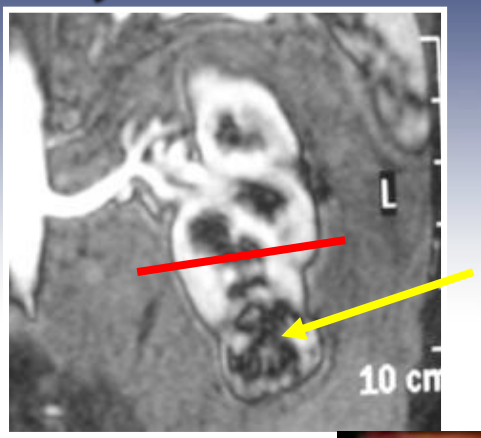
- **Isquemia < 30 min**
- **Evitar Hemorragia e fístula urinária**

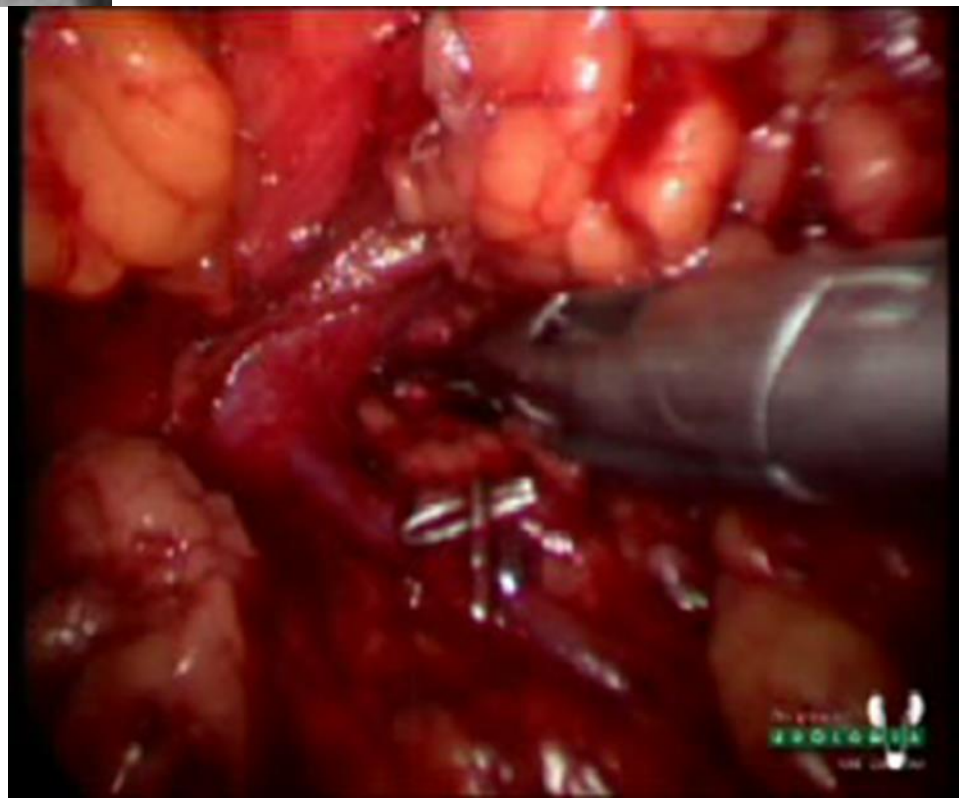
Andreoni C et al:
J Endourol, 2002; 16:156

RE hipotrófico, tu endofítico
3,5 x 3cm, exige cir. laparoscópica

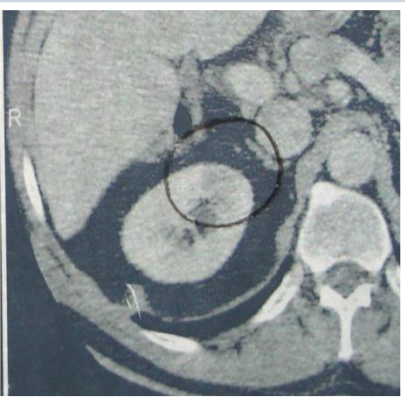


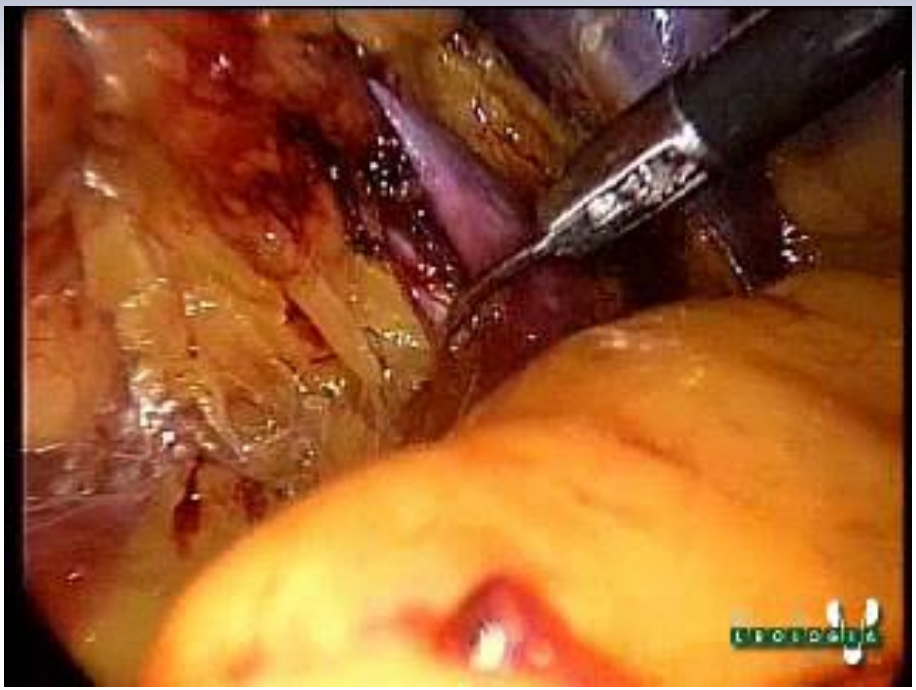
40 anos, tumor bilateral

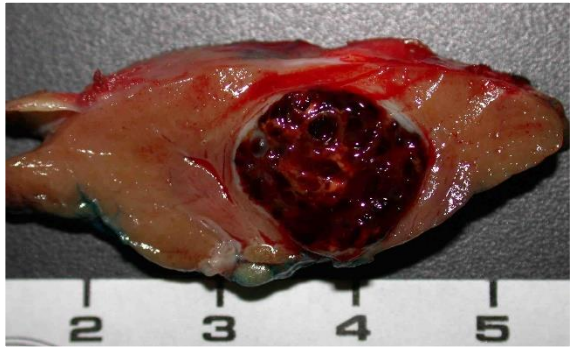




Tumor Endofítico, Localização por US intracorpóreo



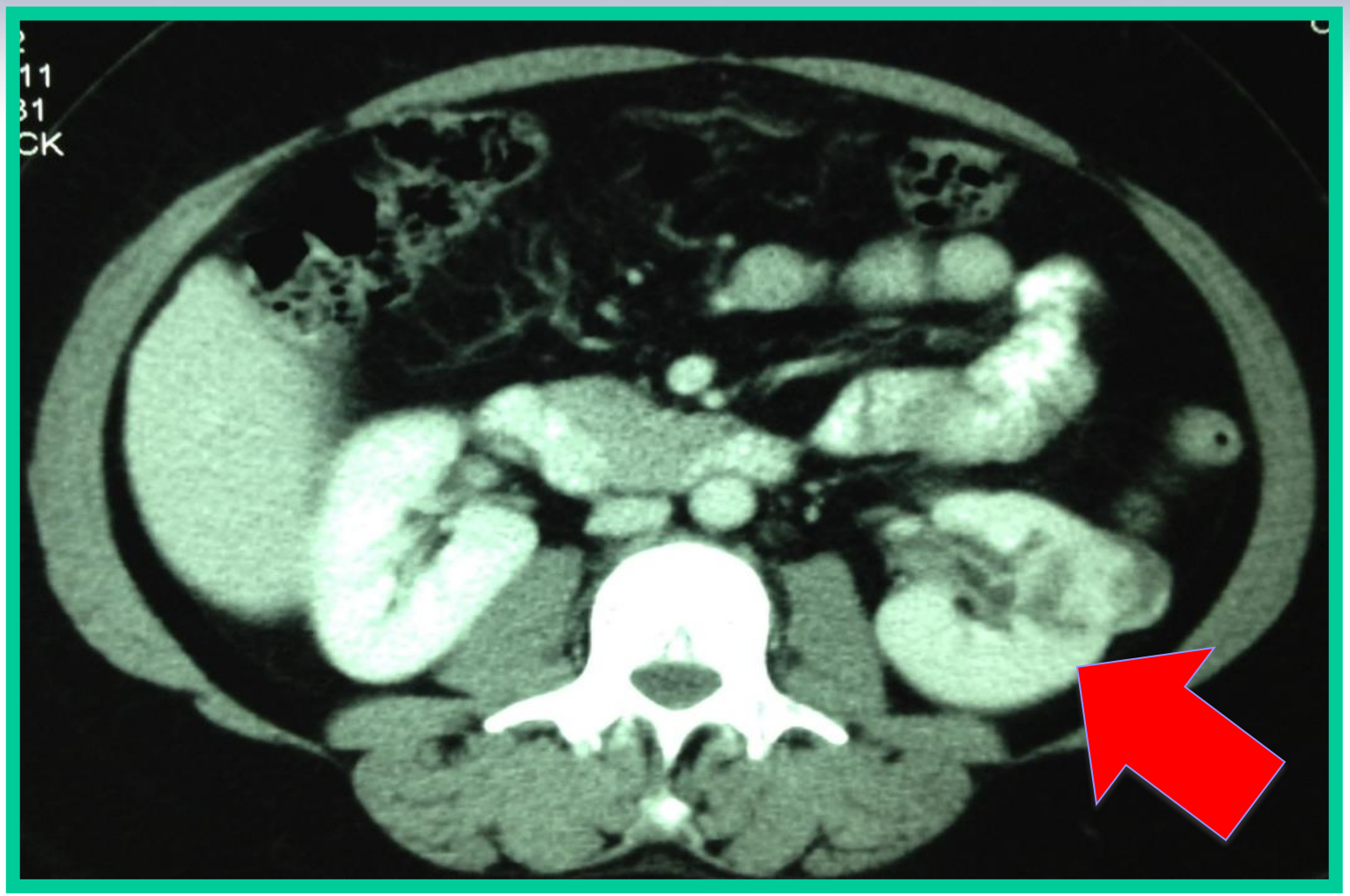


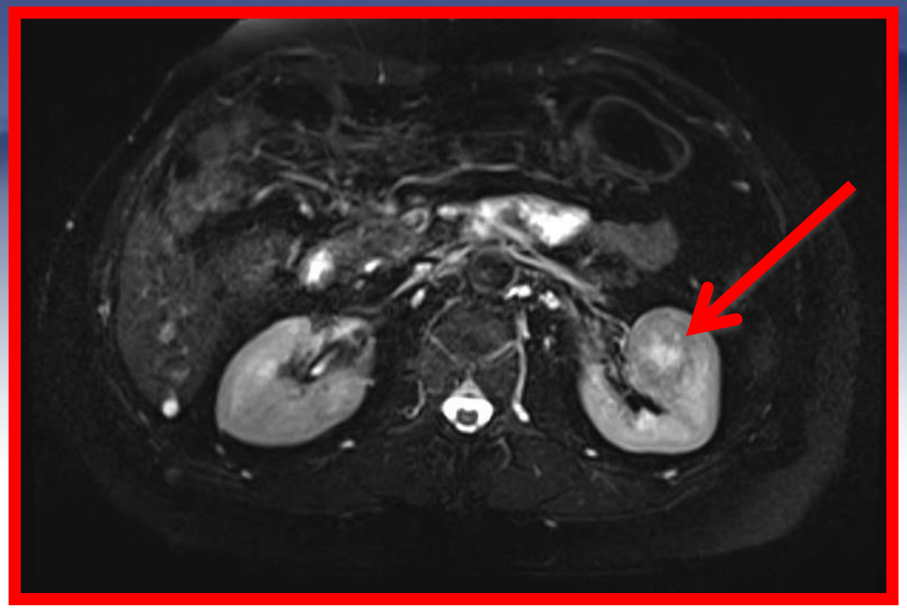


36 anos, Masc,Tumor Hilar Dir 2,2cm,

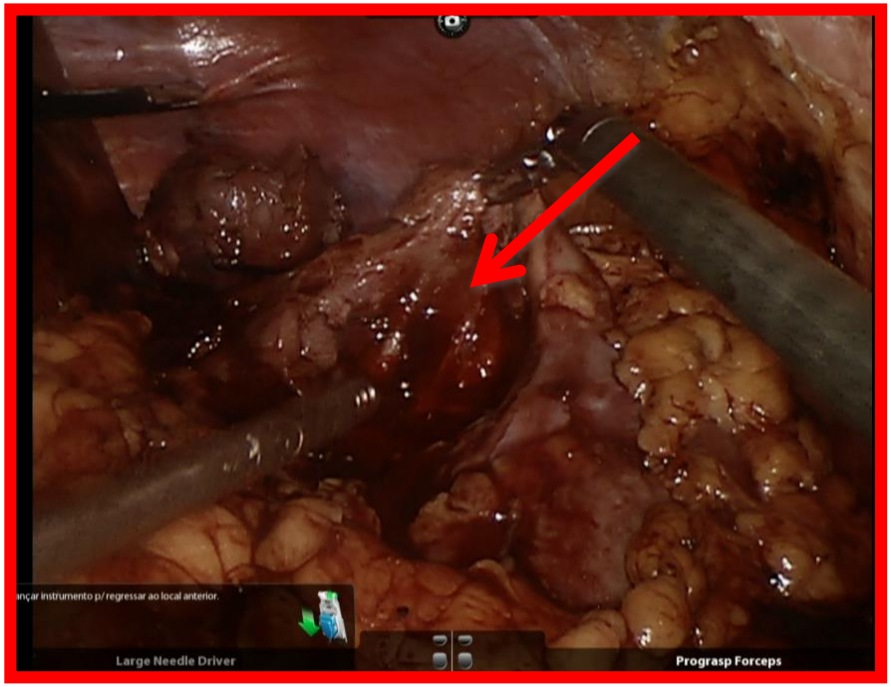
36 anos,masc, 2.3cm Tumor RE, Rim único (zero ischemia)

Tumor Mesorenal em contato com seio renal-sistema coletor






Maryland Bipolar Forceps
Monopolar Curved Scissors


Large Needle Driver
Prograsp Forceps

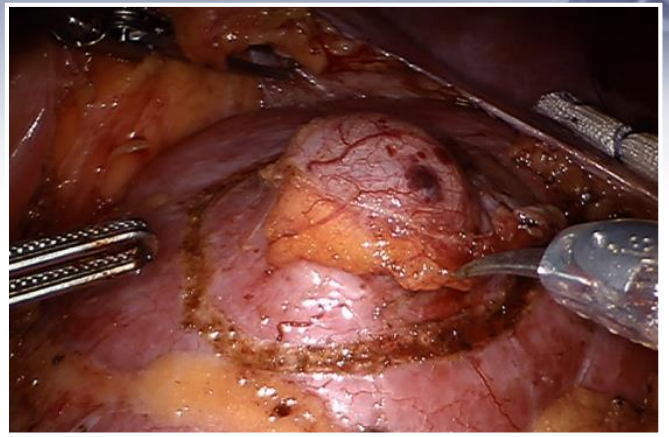
Real-Time, Image-Guided Surgery for the *da Vinci Si* System

Technology Summary:

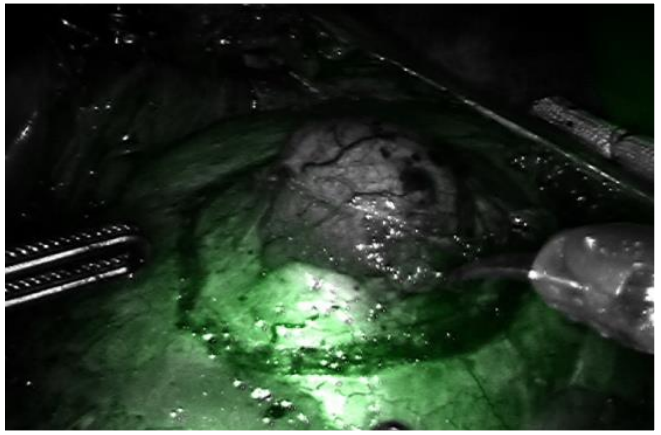
- Advanced vision components & software
- Works in conjunction with an infrared fluorescing injectable dye: Indocyanine Green (ICG)

Indications for use:

- Vessel Identification
- Solid organ perfusion
- Soft tissue perfusion assessment



White Light



Fluorescence

PN 875383 Rev B 3/12

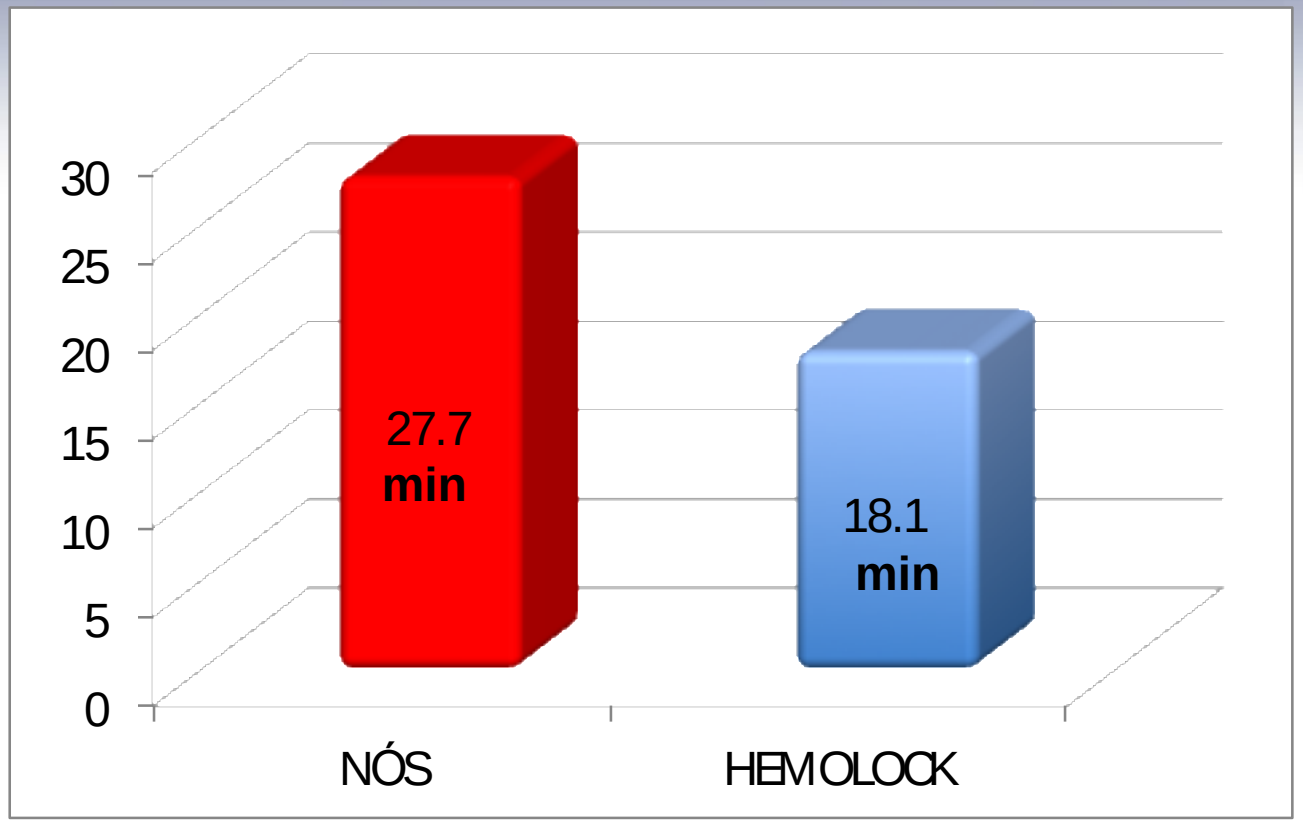
Partial Nephrectomy (2000-2012)

Warm Ischemia

Perioperative		
	Laparoscópica (knots)	**Laparoscópica (No knots)**
n	**161**	**45**
Tempo operatório (min ±dp)	159 (55-300)	166,3 (60-350)
Tempo de Hospitalização (dias ±dp)	2.7 (1-33)	2,8 (2-38)
Tempo de Isquemia quente (minutos ±dp)	**27.7** (9-47)	**18.1** 9-26)
Sangramento estimado (ml ±dp)	281,0 (25-2200)	226,9 (20-700)
Complicações (n)	13	6

Nefrectomia Parcial Laparoscópica

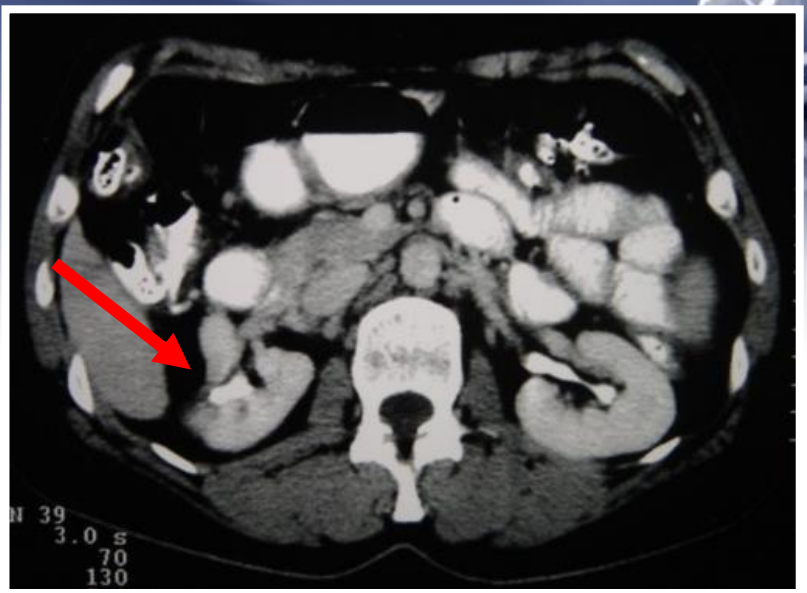
Tempo de Isquemia e Tipo de Técnica de Sutura



2001-2008 **2009-2012**

Pré-op

6º mês PO



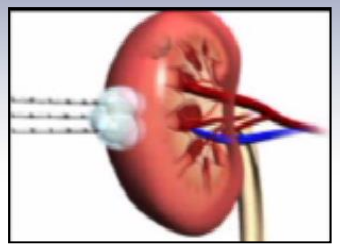
Câncer de Rim

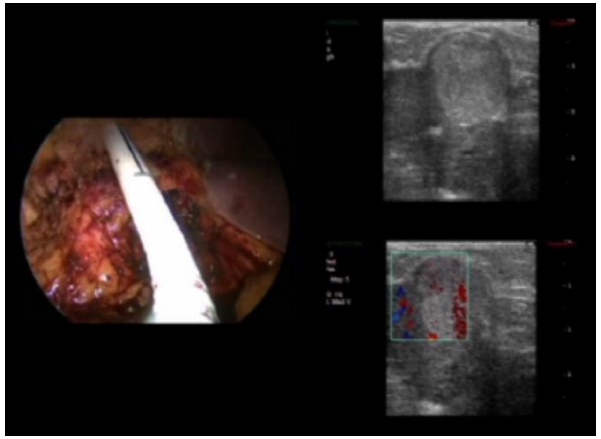
OPÇÕES DE CIRURGIA RENAL

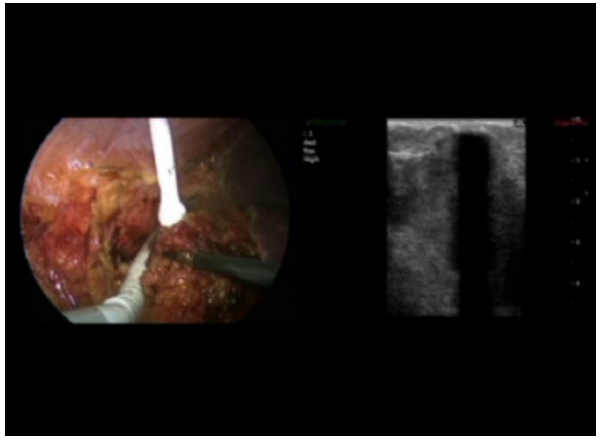
2. Preservação Renal

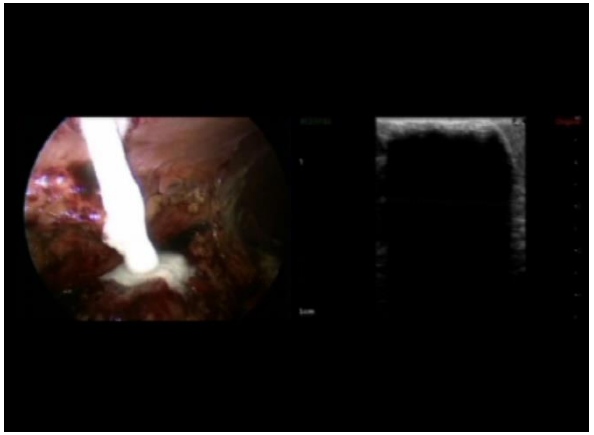
B. Ablação por agulha (opção)

- Crioterapia (- 180º C)

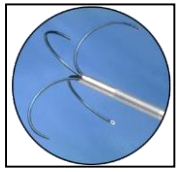








- RadioFrequência (+100º C)



CRIOABLAÇÃO

	N	Técnica	F/U	Resultados
Davol, 2006	48	Open/Lap	64 meses	5 recorrências 10%
Hegarty, 2006	161	Lap	36 meses	4 óbitos Met.
Lee, 2003				0 recorrências
Nadler, 2003	13	Lap	13 meses	1 recorrência 7.5%
Shingleton, 2004	90	Perc	30 meses	0 recorrências
Permpongkosol, 2006	21	Perc	12 meses	10% recorrências

Retratamento: 10%

N=355

RADIOFREQUÊNCIA

	N	tamanho	F/U
Gervais	34	3.3cm	13 meses 16% recorrência
Pavlovich	21	2.4cm	24% persistência tumor
Cadeddu	91	1.7cm	18 meses 2% recorrência
Wagner	46	--	27 meses, 13 %

N=231

Câncer de Rim
Ablação Tumoral

- Pacientes de alto risco operatório
- Tumores < 2cm

Robot-Assisted Partial Nephrectomy Versus Laparoscopic Partial Nephrectomy: Comparison of Outcomes

Discussão:

- **Vantangens do uso do robô:**
  - **Habilidade para sutura na NPL**
  - **Visão 3D,**
  - **Instrumentos articulados;**
  - **Menor tempo de isquemia (??)**

JOURNAL OF ENDOUROLOGY
Volume 23, Number 9, September 2009

Robot-Assisted Partial Nephrectomy Versus Laparoscopic Partial Nephrectomy: Comparison of Outcomes

Table 2. Operative and Postoperative Data

	RAPN	*LPN*[a]	p
n	11	20	
Operative time (minutes) (range)	185 (120–270)	226 (120–420)	0.07[c]
Warm ischemia time (minutes) (range)	27.3 (13–40)	35.8 (18–50)	0.02[b]
Estimated blood loss (mL) (range)	286.4 (50–800)	387.5 (50–1000)	0.3[c]
Pelvicalyceal system repair	6 (54%)	10 (50%)	0.8[d]
Conversions			
Open	0	2	
Hand assisted	0	1	
Complications			
Intraoperative	0	1	
Postoperative			
Renal artery pseudoanerysm	1 (9%)	0	
Transfusion	0	2 (10%)	
Hospital stay (days) (mean ± SD)	3.9 ± 0.7	4.27 ± 1.12	0.28[c]
Postoperative creatinine (mg/dL) (range)	0.99 (0.56–1.69)	0.98 (0.57–1.4)	0.54[b]
Postoperative hemoglobin (g/dL) (range)	11.7 (8.5–14)	11.83 (8.9–14)	0.9[b]
Mean follow-up (months) (range)	7.54 (3–14)	38 (19–66)	< 0.0001[b]

JOURNAL OF ENDOUROLOGY
Volume 23, Number 9, September 2009

Robot-Assisted Partial Nephrectomy Versus Laparoscopic Partial Nephrectomy: Comparison of Outcomes

Discussão:

- **Desvantangens do uso do robô:**
  - **Dificuldade no controle do pedículo renal;**
  - **Necessidade de um auxiliar experiente;**
  - **Custo.**

JOURNAL OF ENDOUROLOGY
Volume 23, Number 9, September 2009

TRATAMENTO CONTEMPORÂNEO DO CÂNCER RENAL