

Nyrecancer & kryoablation

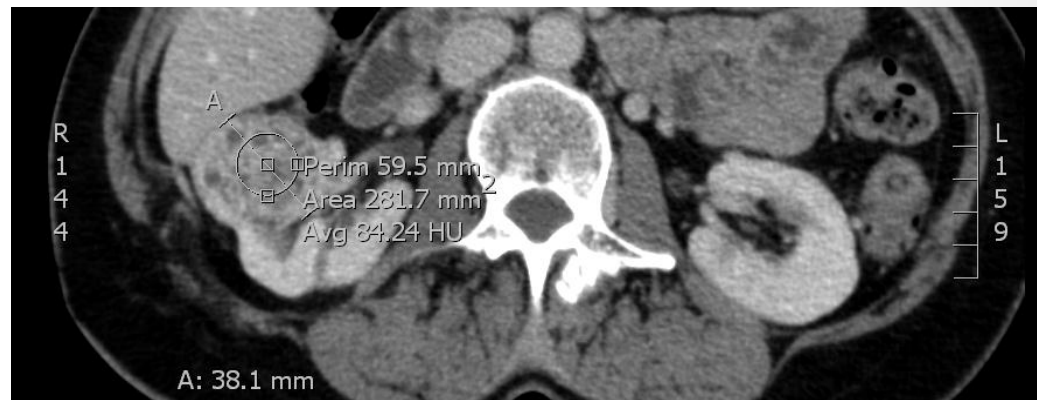
- den tiltagende T1a udfordring



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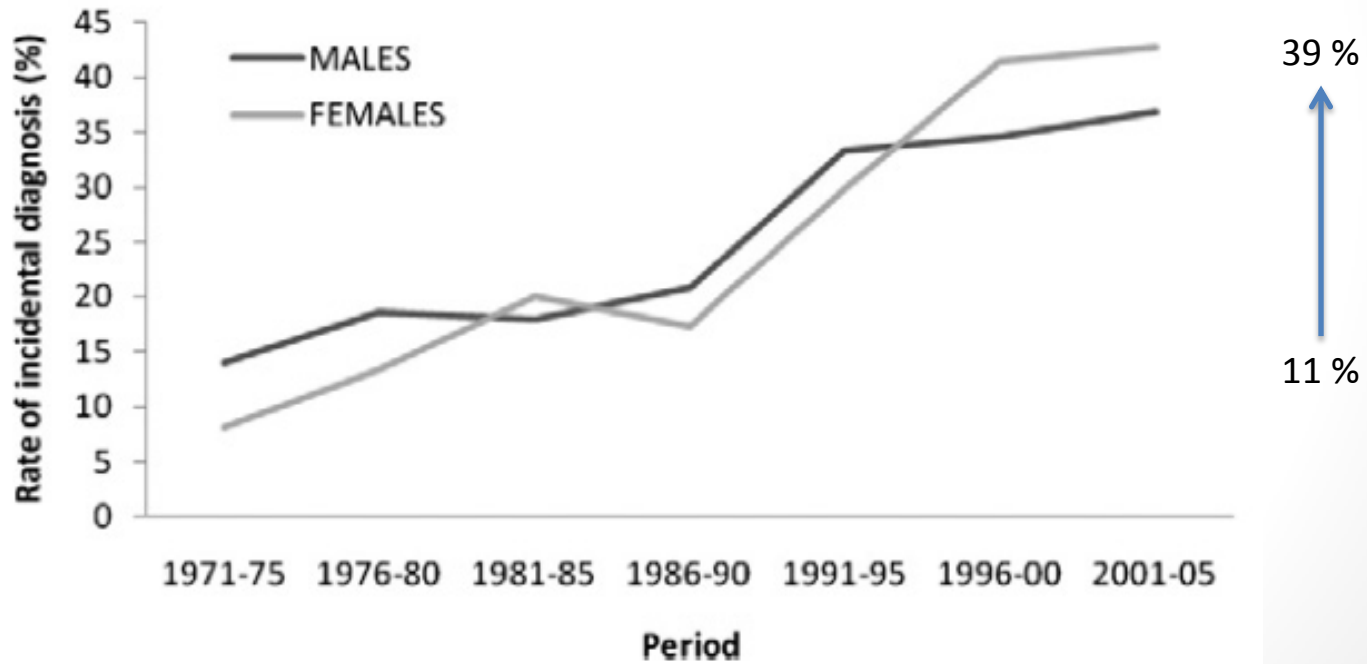
Patienten

- 72 årig kvinde, henvist fra ortopædkirurgisk afdeling 2009.
- Tilfældig fund af knap 4 cm solid tumor i højre nyre.
- Ingen tegn på metastatisk sygdom.
- Biopsi: Clear cell RCC
- Tidligere:
 - Kendt med moderat KOL (ryger, 50 pakkeår).
 - 2004: AMI, PCI-behandlet.
 - 2005: C. mamma, lumpektomi, ingen tegn på recidiv.



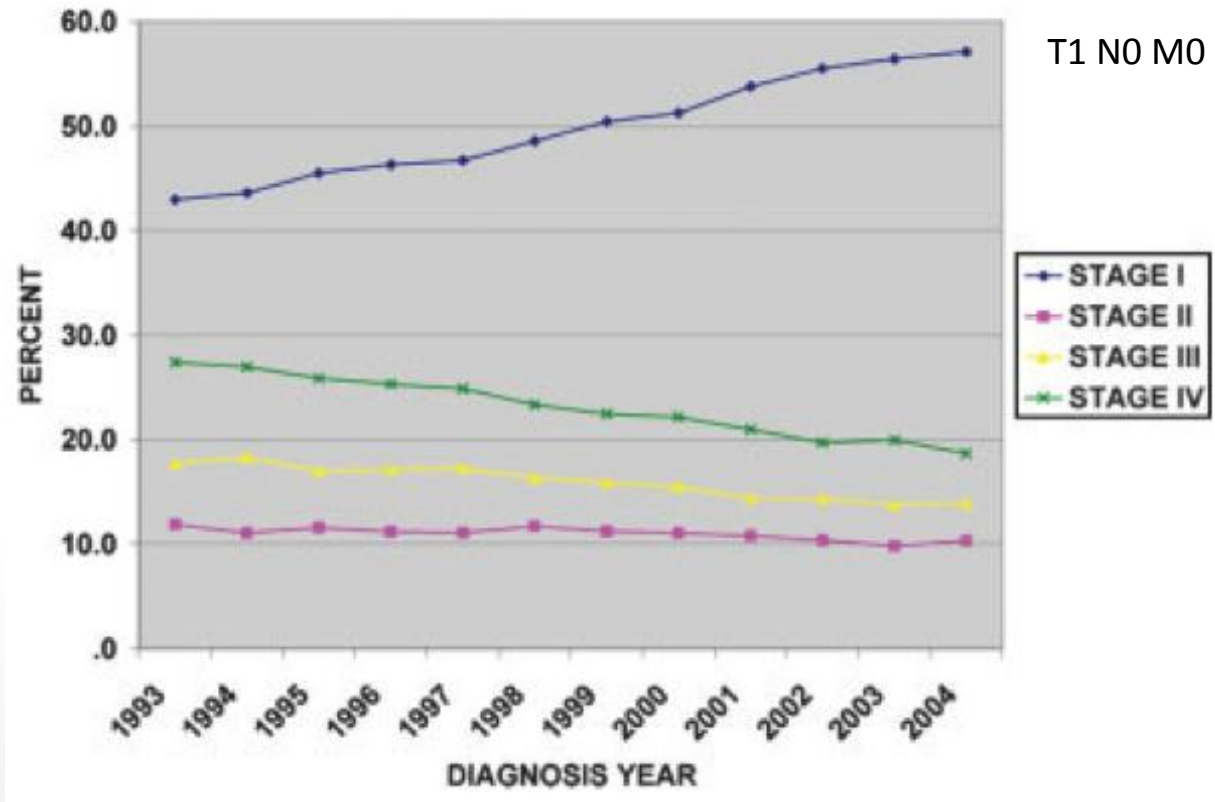
Renale incidentalomer

- Islandske patienter (n=910) diagnosticeret med RCC



Udvikling i stadiefordeling

- US National Cancer Data Base (n = 205.000)
- Dækningsgrad – ca. 75%



Tumorvækst

- Sparsom eller ingen tumorvækst ¹⁺²
 - Median vækst = 0.28 - 0.31 cm/år
 - 23 % udviste ingen vækst
- Initieel tumor størrelse har *måske* betydning for vækst
 - Cut off på 2.45 cm: 0.13 vs. 0.40 cm/år ³
- Histologisk gradering har *måske* betydning for vækst
 - High: 0,93 cm/år vs. Low:0,37 cm/år ⁴

¹ Chawla SN. The natural history of observed enhancing renal masses: meta-analysis and review of the world literature. J Urol 2006

² Smaldone MC. Small renal masses progressing to metastases under active surveillance. Cancer 2012

³ Mason RJ. Growth Kinetics of Renal Masses: Analysis of a Prospective Cohort of Patients Undergoing Active Surveillance. Eur Urol 2011

⁴ Masanori K. Natural history of small cell carcinoma: evaluation of grow rate. J Urol 2004

Metastasering

- Ingen konsensus om risiko for metastasering !!
 - Initiet tumorstørrelse og risiko for metastasering ¹
(retrospektiv, multicenter, RCC, n=995, follow-up 3 år)
 - 0-1cm: 7 %
 - 1-2cm: 6 %
 - 2-3cm: 5 %
 - 3-4cm: 8 %
 - Metaanalyse af active surveillance studie: 2 % metastasering ²
(18 serier, 880 patienter, tid til metastasering 40 mdr)
 - Microvaskulær invasion er vist at være signifikant risikofaktor for udvikling af metastaser ³

¹ Klatte T. Tumor size does Not predict risk of metastatic disease or prognosis of small renal cell carcinomas. J Urol 2006

² Smaldone MC. Small renal masses progressing to metastases under active surveillance. Cancer 2012

³ Kume H. Distant metastasis of renal cell carcinoma with a diameter of 3 cm or less—which is aggressive cancer? J Urol 2010

Biopsi

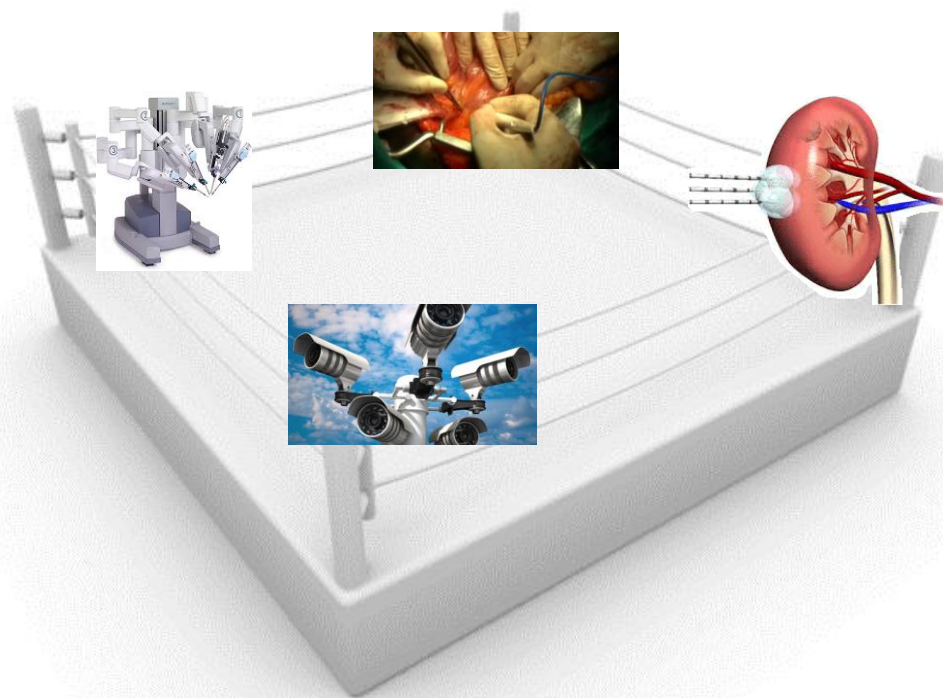
- Histologisk diagnose ¹⁺²
 - En diagnostisk biopsi opnås hos ca. 80 %
(enkelte serier rapporterer 90-95 %)
 - Benign histologi findes hos ca. 20 – 25 %
- Komplikationer ²⁺³
 - Clavien Grad 1 komplikationer < 10 % ved 345 procedurer
(beskeden hæmatom dannelse, pneumothorax)
 - Tract seeding er meget sjældent forekommende, <0.01 %

¹ Volpe A. Contemporary results of percutaneous biopsy of 100 small renal masses: a single center experience. J Urol. 2008

² Leveridge MJ. Outcomes of small renal mass needle core biopsy, nondiagnostic percutaneous biopsy, and the role of repeat biopsy. Eur Urol. 2011

³ Silverman SG. Renal masses in the adult patient: the role of percutaneous biopsy. Radiology 2006

Behandlungsmuligheder

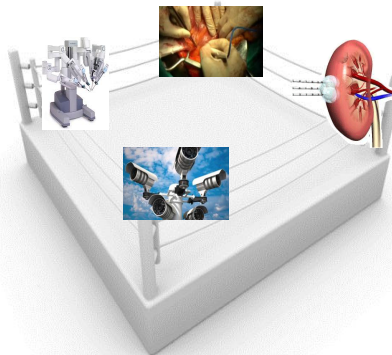


Behandlingsmuligheder

- kan CSS sammenlignes ?

Table 12a: Cancer-Specific Survival

Study Type	# of studies	Percent	Lower Limit	Upper Limit	Mean/Median Patient Age (yrs)	Mean/Median Tumor Size (cm)	Mean/Median Follow-Up (mos)
Cryo	6	95.2	89.2	97.9	67.6 / 66.1	2.6 / 2.6	20.5 / 16.4
RFA	8	98.1	95.2	99.2	67.8 / 70.0	2.8 / 2.7	23.4 / 19.4
LPN	17	98.8	97.6	99.4	61.2 / 61.0	2.6 / 2.6	20.8 / 15.0
OPN	21	97.2	96.0	98.0	60.4 / 60.0	3.3 / 3.1	56.0 / 47.0
LRN	8	98.2	96.7	99.0	60.7 / 61.0	4.6 / 4.6	30.2 / 17.7
ORN	12	89.1	84.0	92.8	62.5 / 62.6	4.8 / 5.2	60.8 / 56.7



Kryo “long-term” resultater

Forfatter, år	Antal patienter	Follow-up (mdr)	Tumor str. (cm)	RCC %	Inkomplet ablation	Lok recidiv	Cancer Spec. survival (%)	Overall survival (%)
Weld, 2007	31	46	2.1	65 %	0	1/31	100 %	n.a.
Aron, 2010	80	93	2.3	69 %	n.a.	5/80	92 %	84 %
Guazzoni, 2010	44	61	2.1	100 %	0	1/44	100 %	93 %

Behandlungsstrategi

Milan
15-19 March 2013

Ablative Therapies : not experimental but developmental,
and can be proposed in frail patients

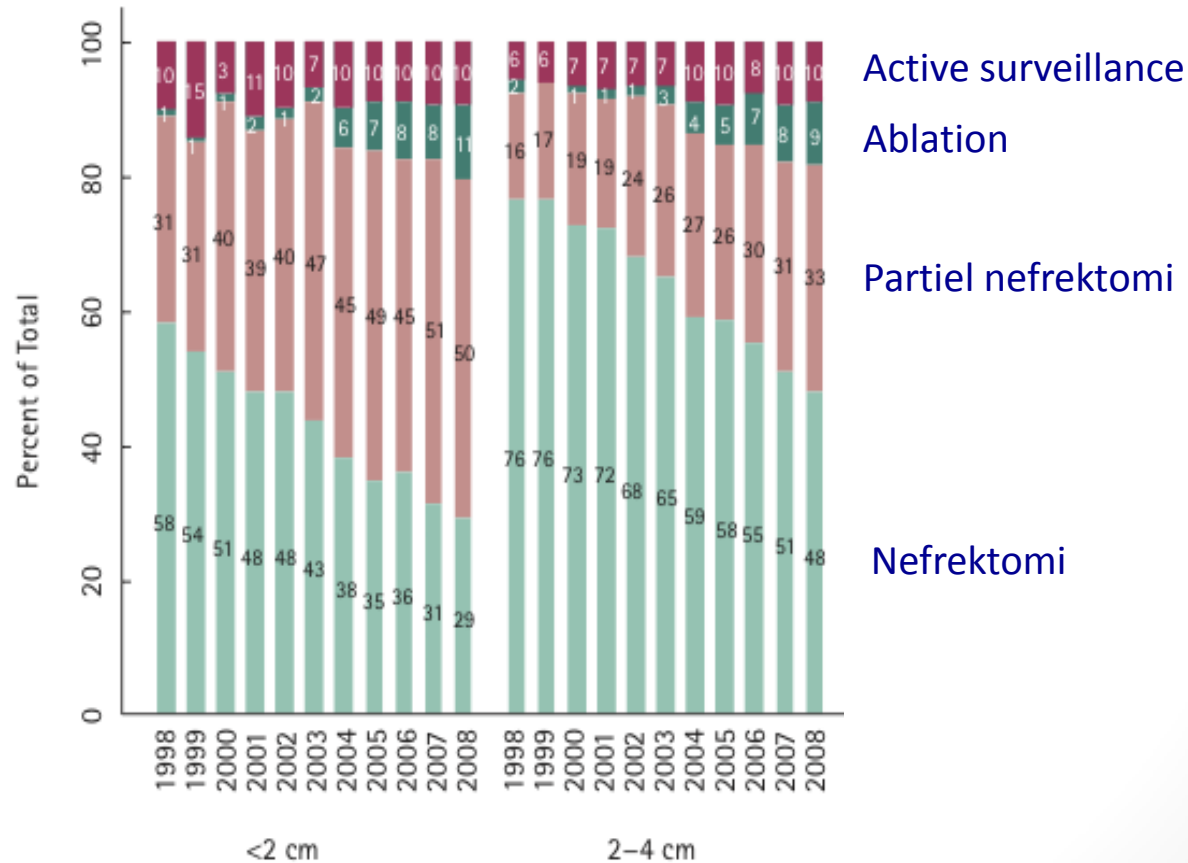
Laparoscopic partial nephrectomy can be done by experts

Open partial nephrectomy remains the gold standard in
routine urological practice, surely in more complex cases

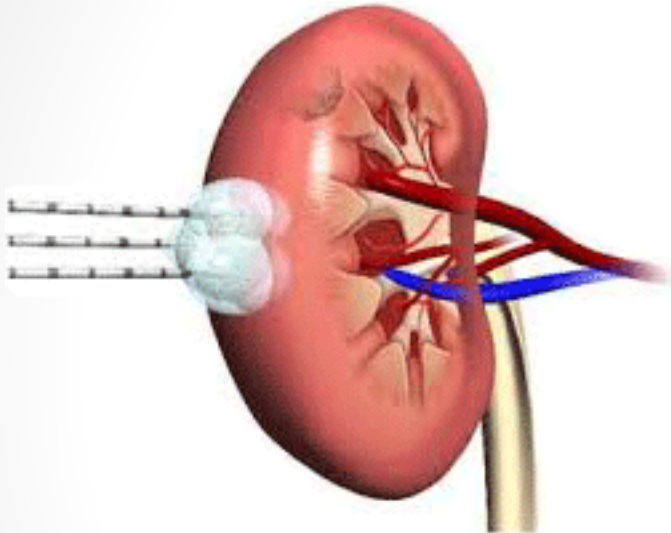
When you treat: How ?

EAU

Behandlingspraksis i USA



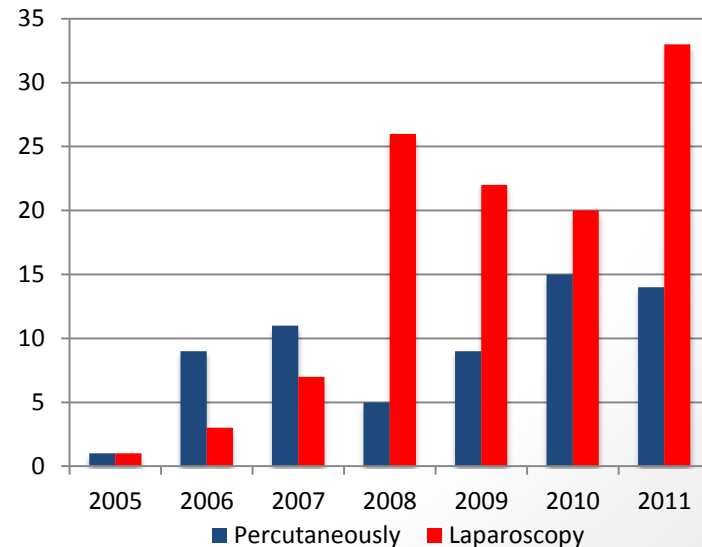
Behandlingspraksis i Aarhus



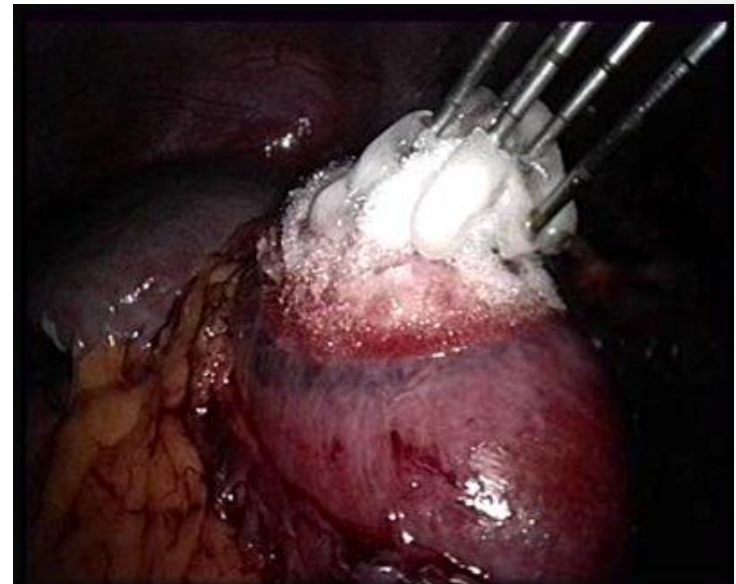
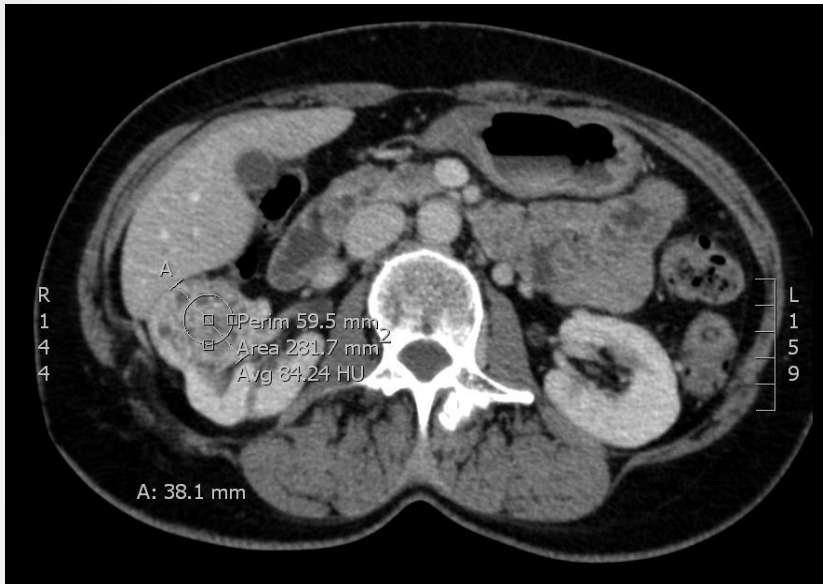
Kryoablation påbegyndt i 2005

Øyvind Østraat & Jan Solvig

Laparoskopisk, ultralyd, CT



Behandling af patienten



4 IceSeed + 1 termo-sensor

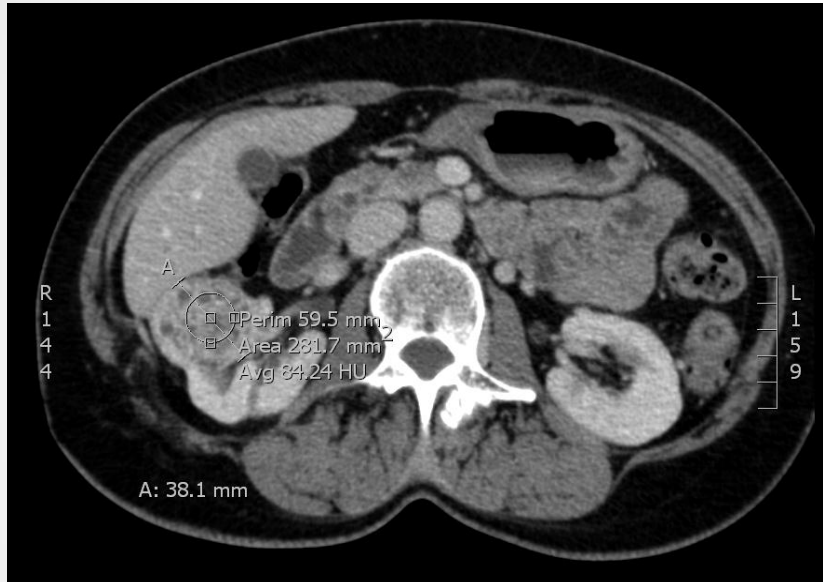
Nåleplacering ved hjælp af laparoskopisk ultralyd

Fryseprotokol: 2 x 10 min med aktiv tøj mellem frysningerne

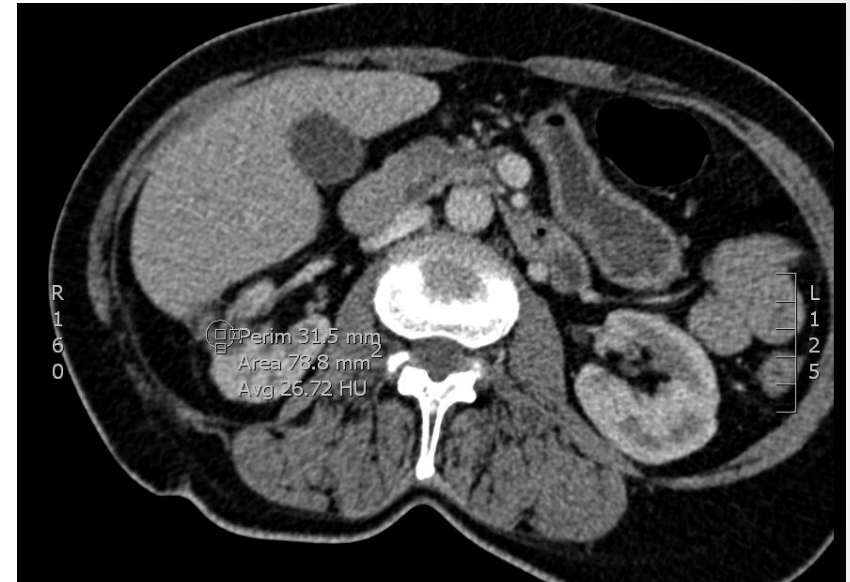
Behandlingsvarighed: 90 minutter

Komplikationer: ingen

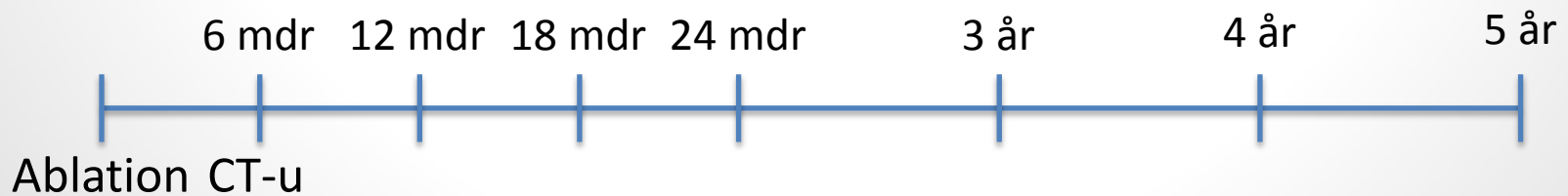
Opfølgning af patienten



Præoperativt

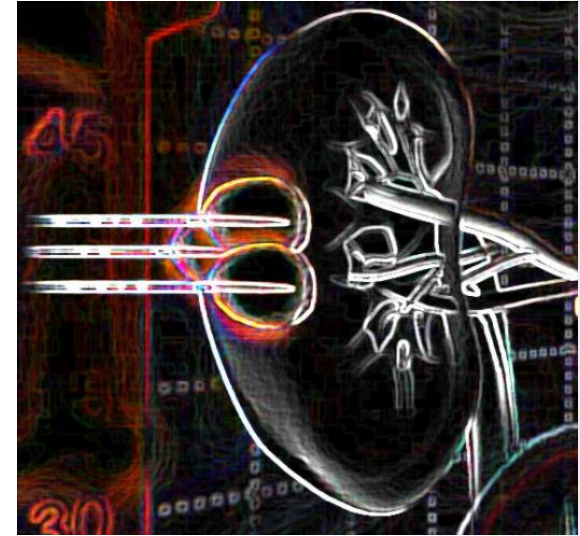


4 år postoperativt



Igangværende ph.d. studie

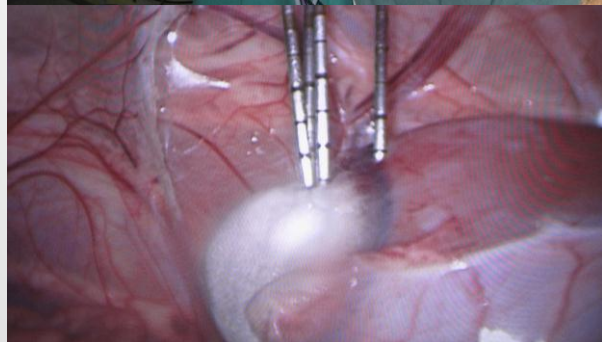
Cryoablation of renal tumours – correlation between tissue necrosis and diagnostic imaging



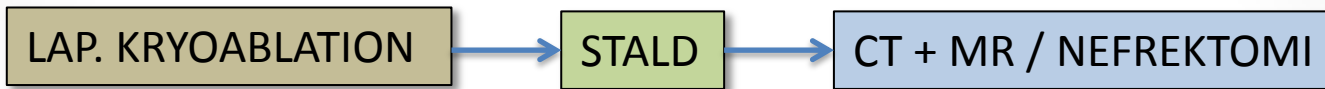
- Udvikling af en dyremodel
 - Korrelation mellem billeddiagnostik og histologi
 - Apoptose / mikrodialyse i fryselæsionens randzone
- Retrospektiv evaluering af de danske kryoablationsresultater



Udvikling af en dyremodel



Udvikling af en dyremodel



TAK FOR OPMÆRKSOMHEDEN



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