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Surgery for Renal Cancer :
What are the options?



Surgical Options

- Each patient is an individual
- Each surgeon is an individual
- Each tumour is different
- Guidelines for best practice
- Individual factors may determine alternative approaches

Different situations

- Tumours confined to the kidney
- Surgery for tumours that have grown outwith the kidney
- Nephrectomy in the presence of metastases
- Surgery for metastatic disease

Tumours confined to the kidney

- T1a - less than 4cm
- T1b-4-6cm
- T2-over 6cm

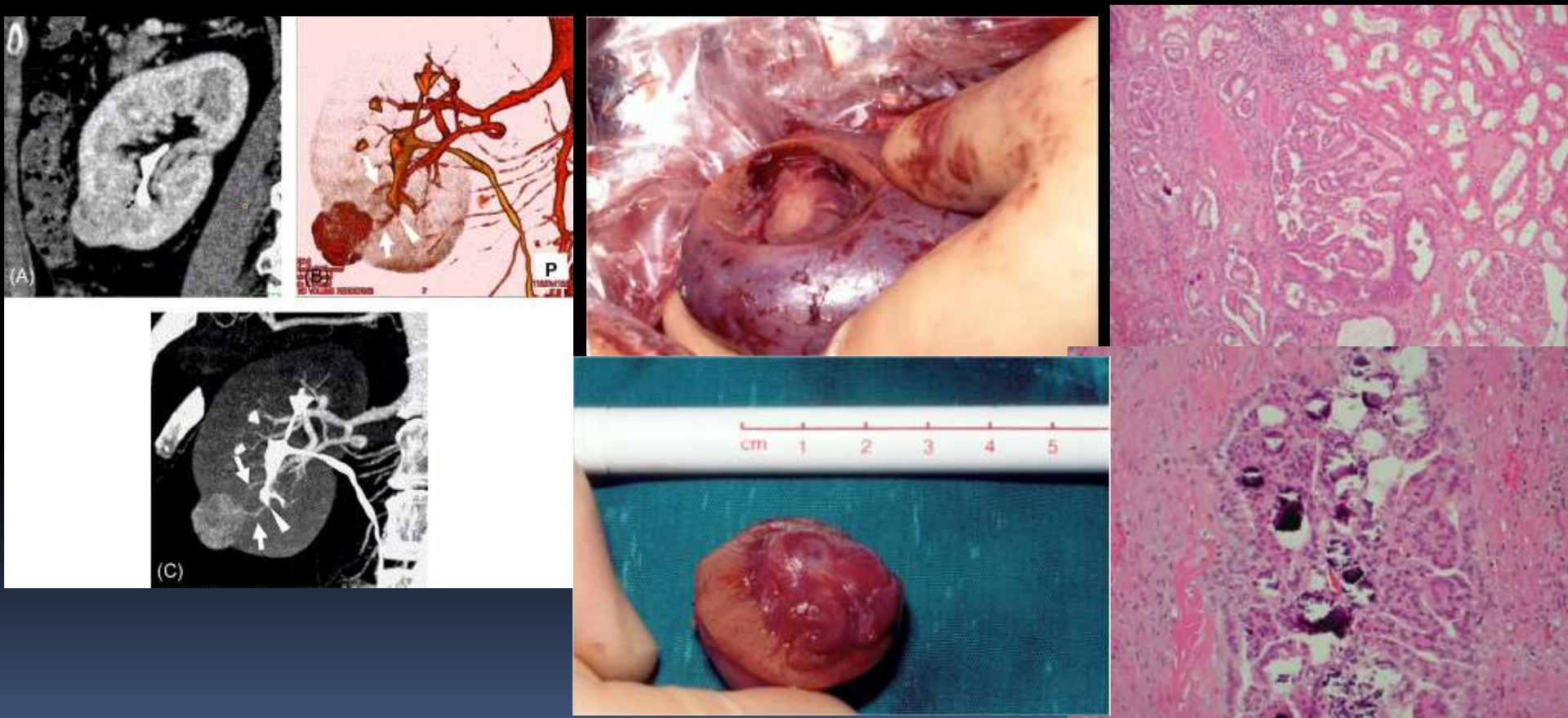
Small renal tumours=T1

Nephron sparing surgery (partial nephrectomy)

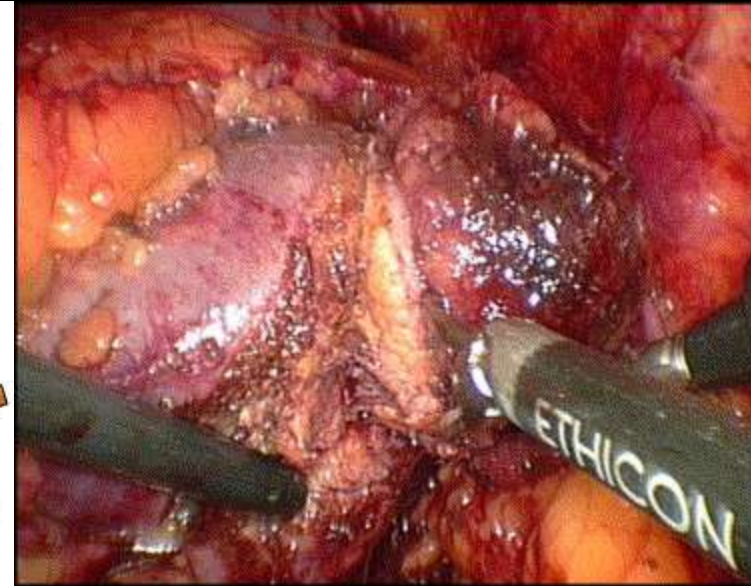
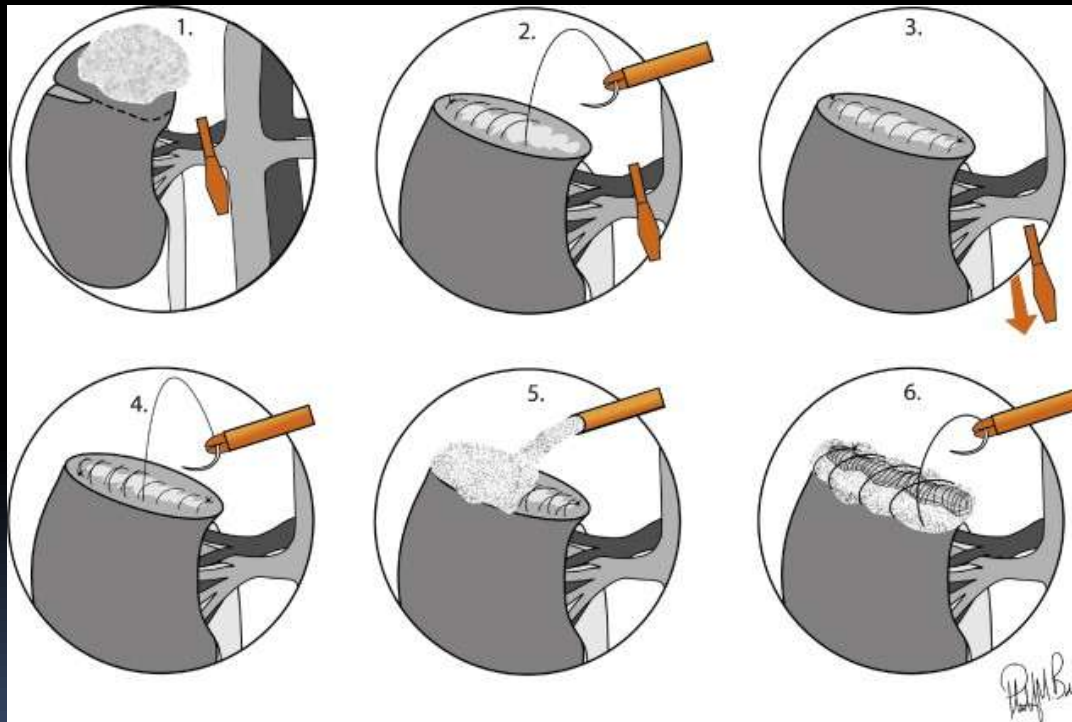


Aim of treatment is to remove tumour and preserve remainder of kidney

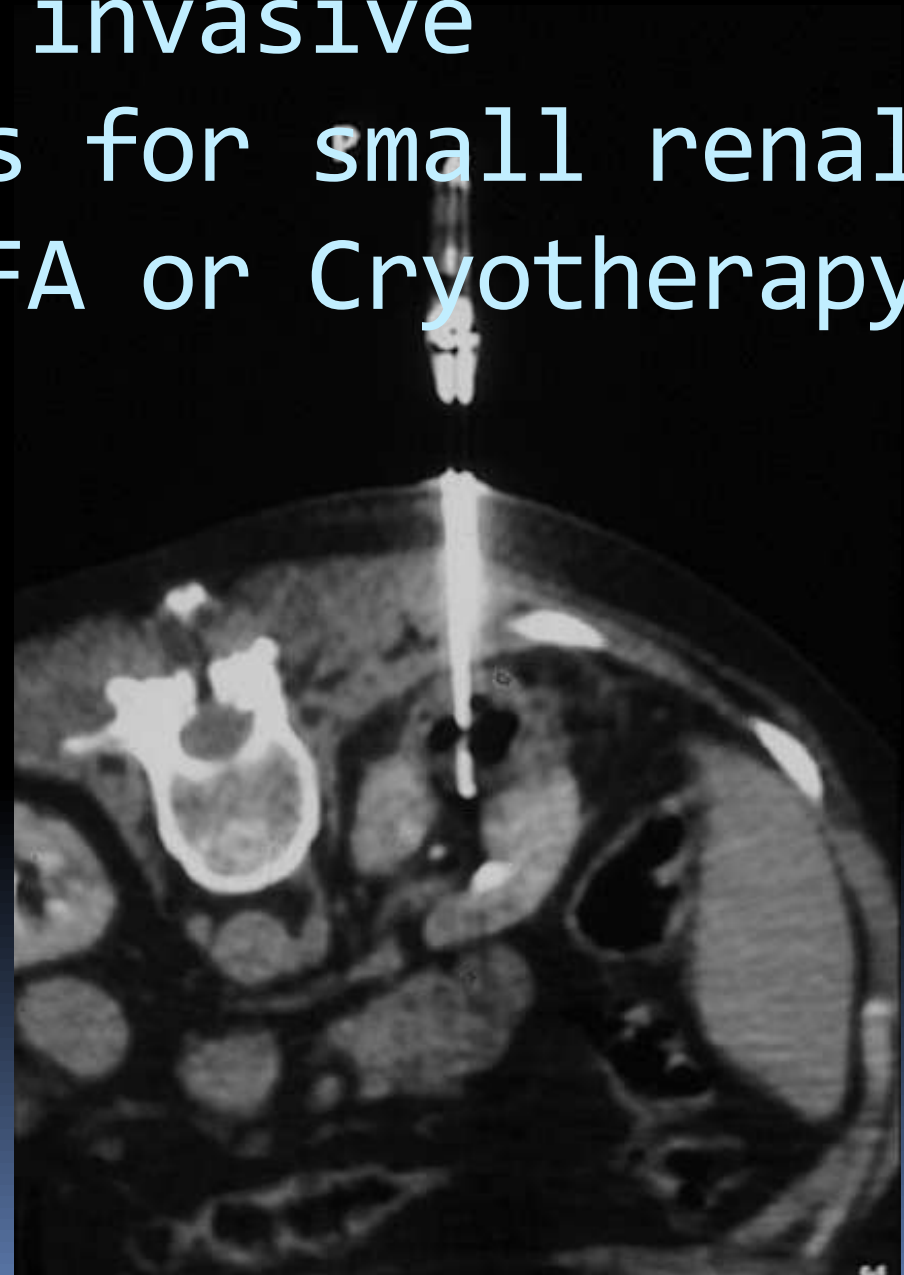
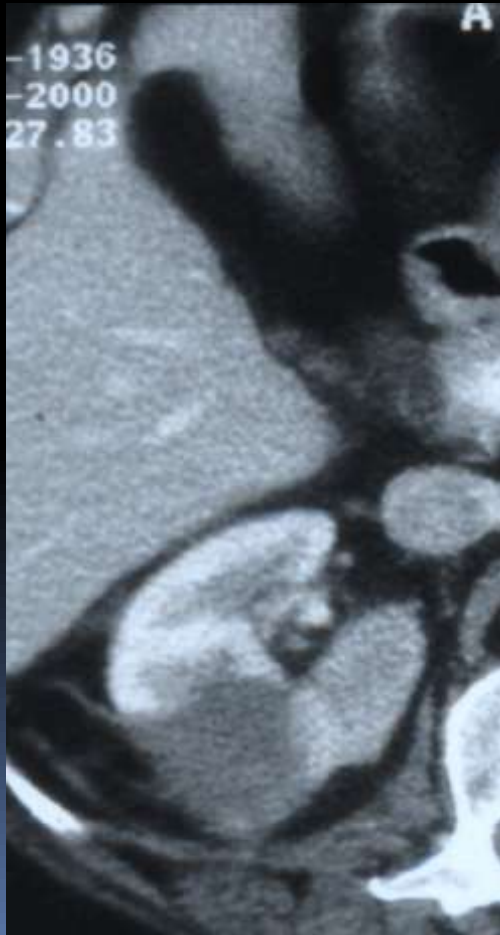
Open partial nephrectomy



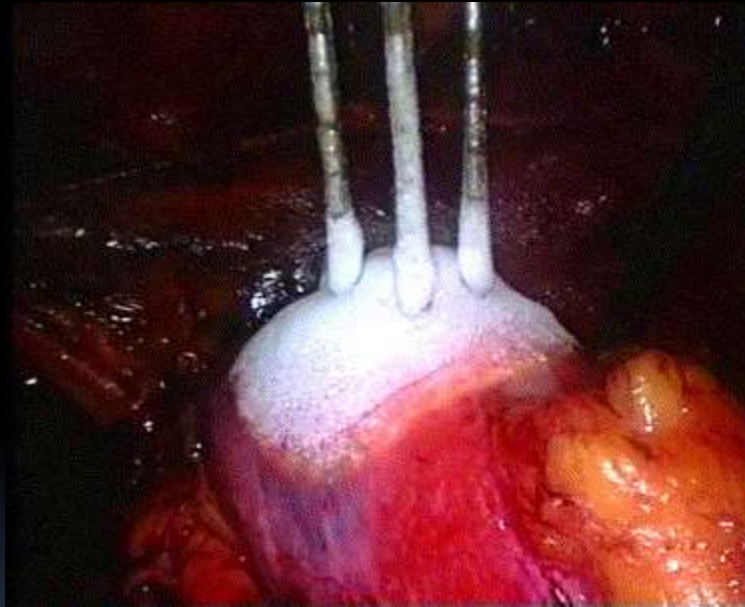
Laparoscopic partial nephrectomy

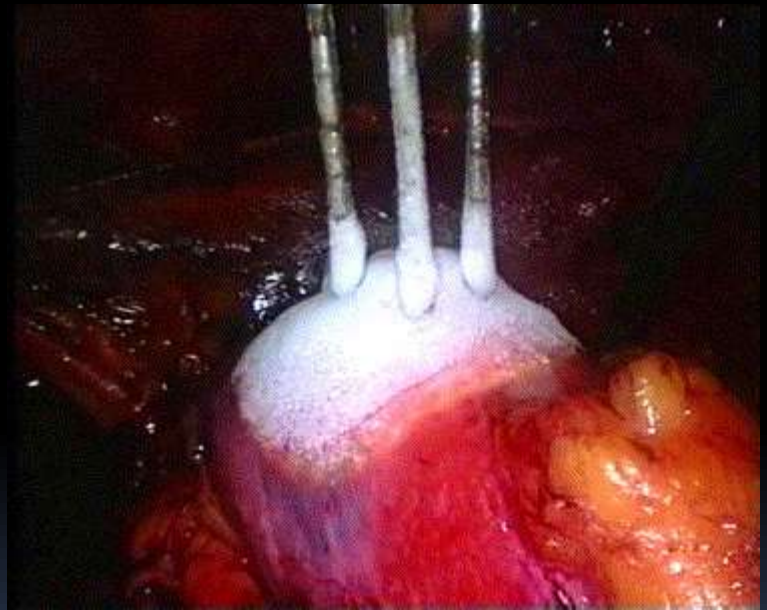
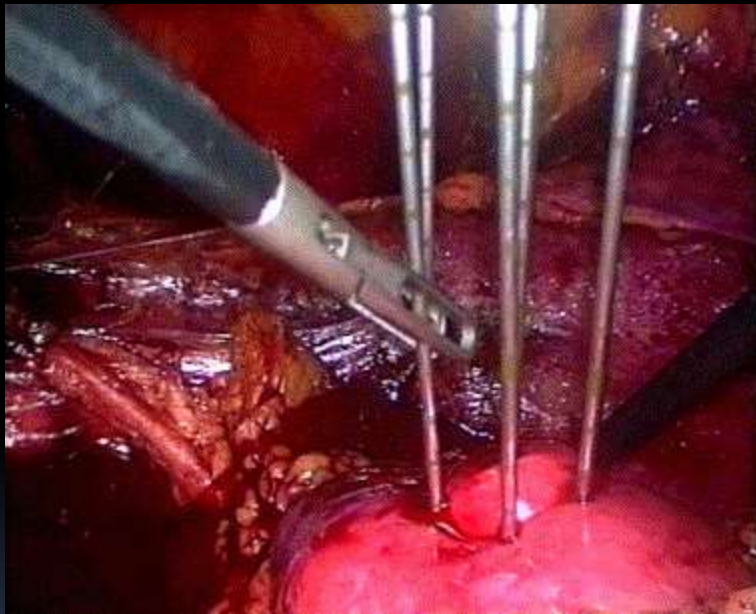


Minimally invasive treatments for small renal tumours RFA or Cryotherapy



The ice ball extending beyond the edge of the tumor edge by approximately 1 cm to ensure a safety margin.

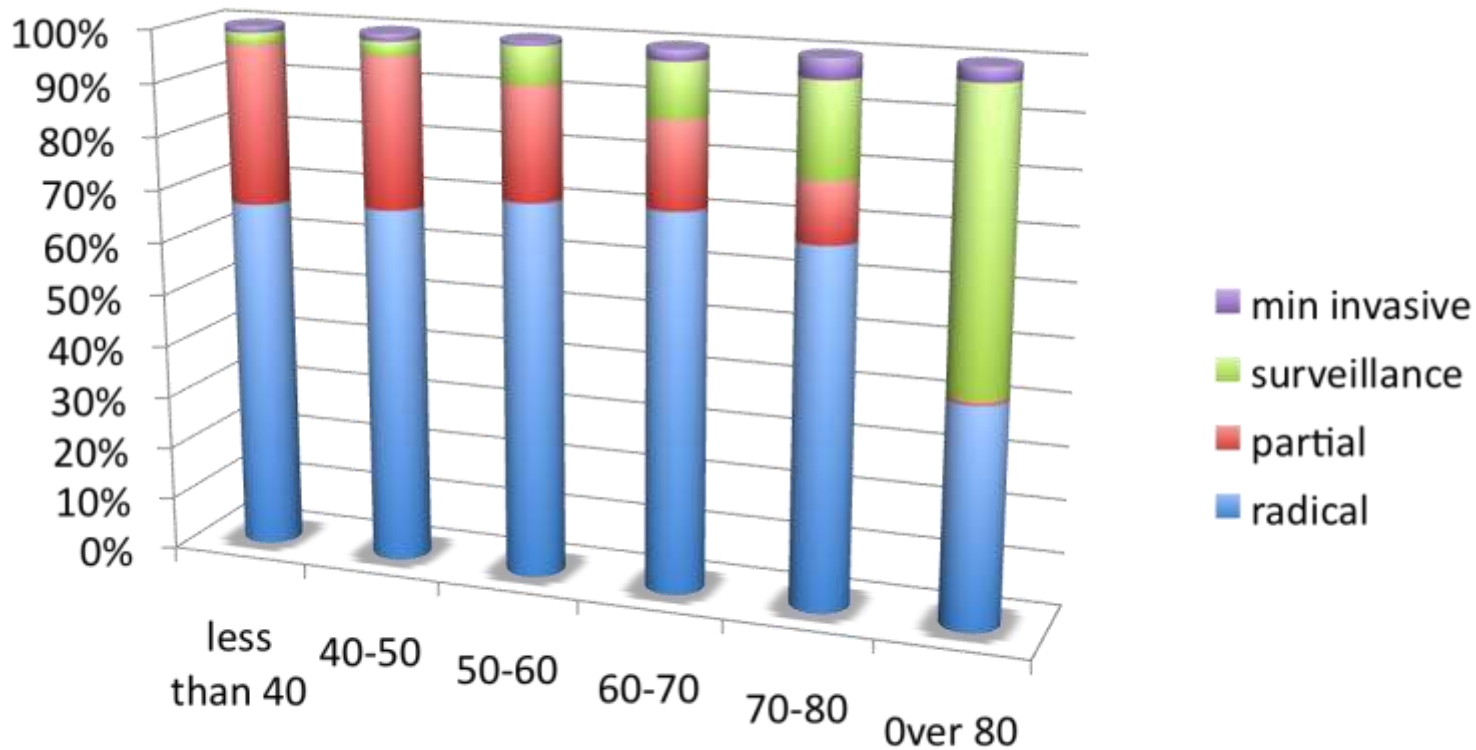




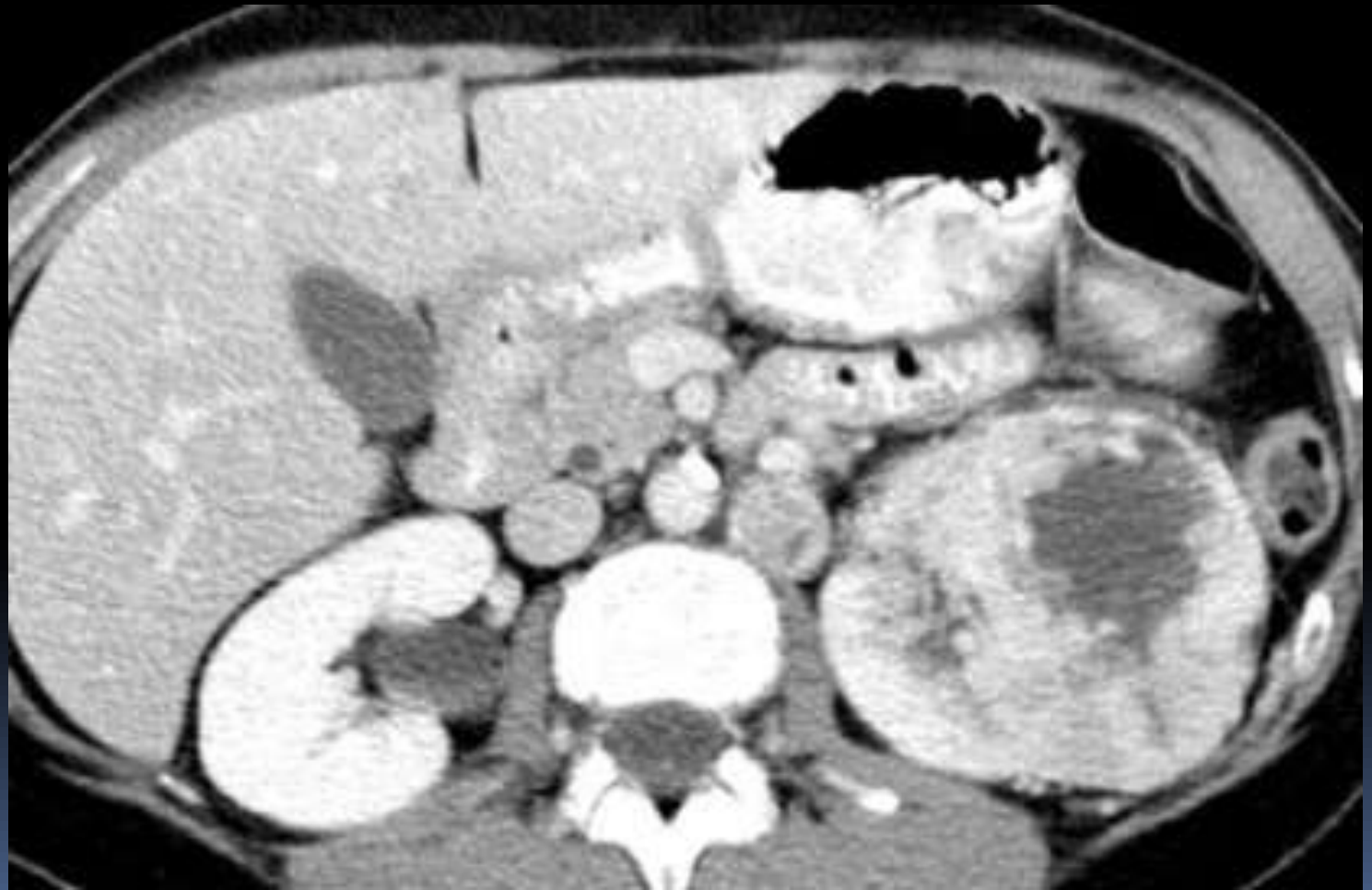
Treatment type by age group

T1a: BAUS Cancer Registry

2004-7



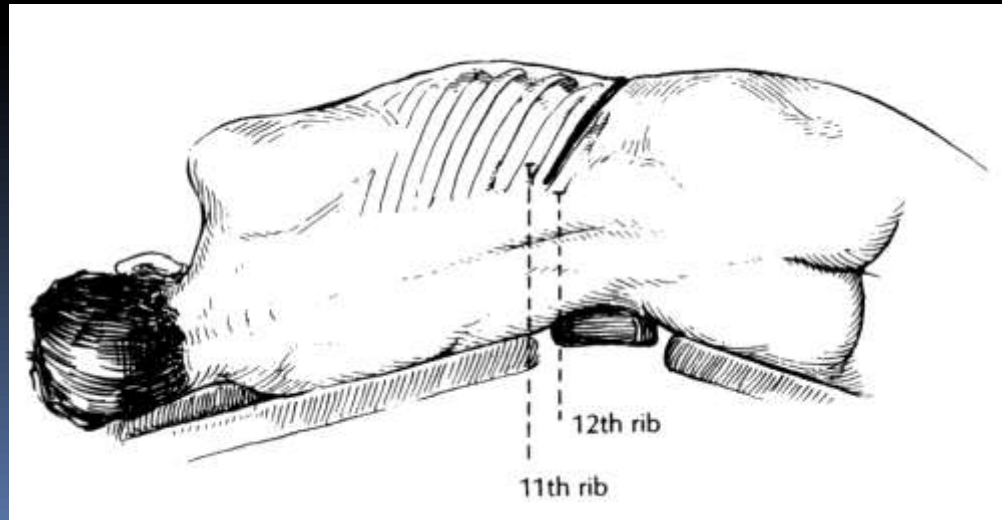
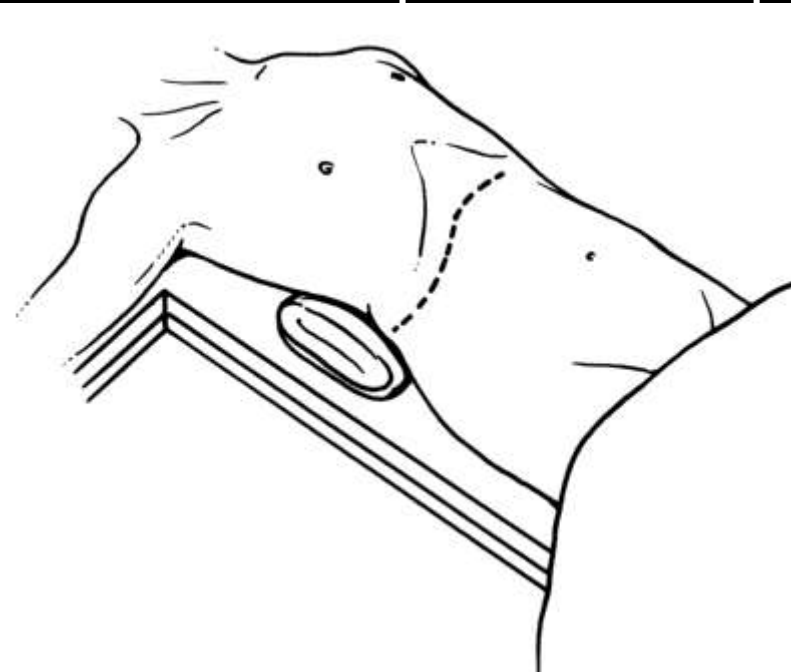
Larger tumours 6cm or more



Radical nephrectomy

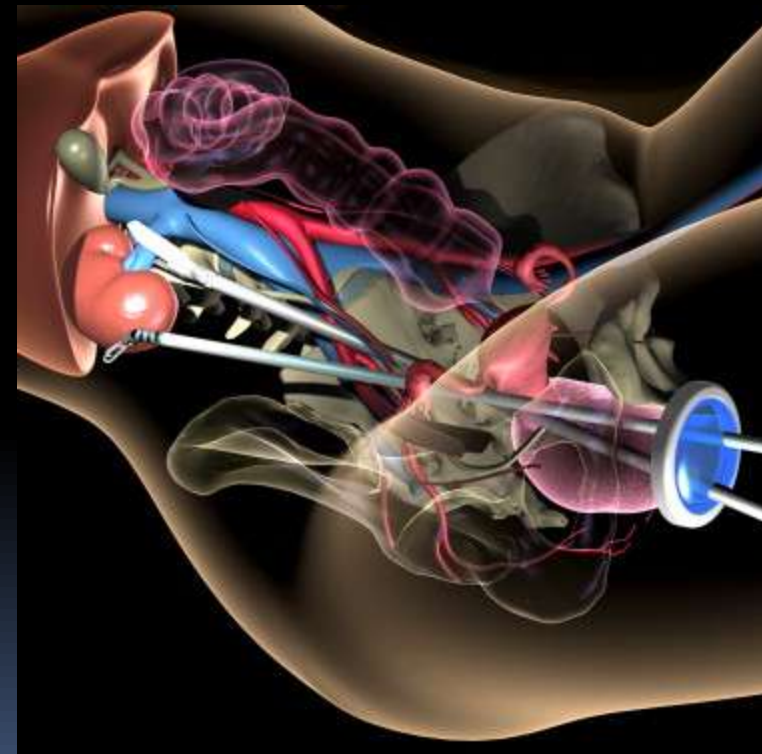
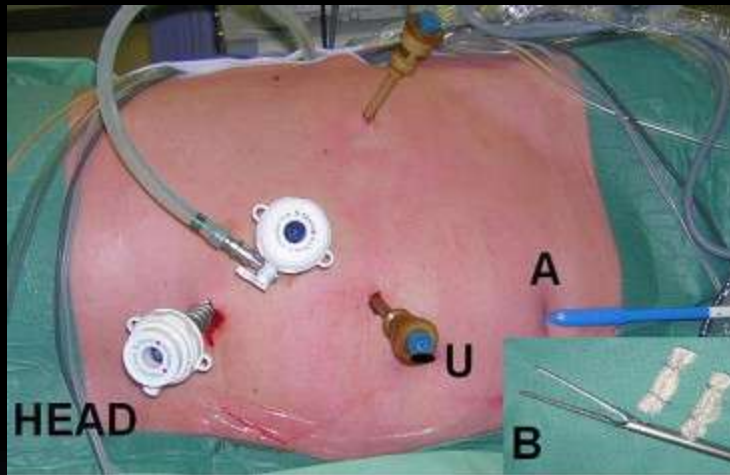
- Aim is to remove kidney with surrounding tissue intact

Open Radical Nephrectomy: anterior or posterior approach

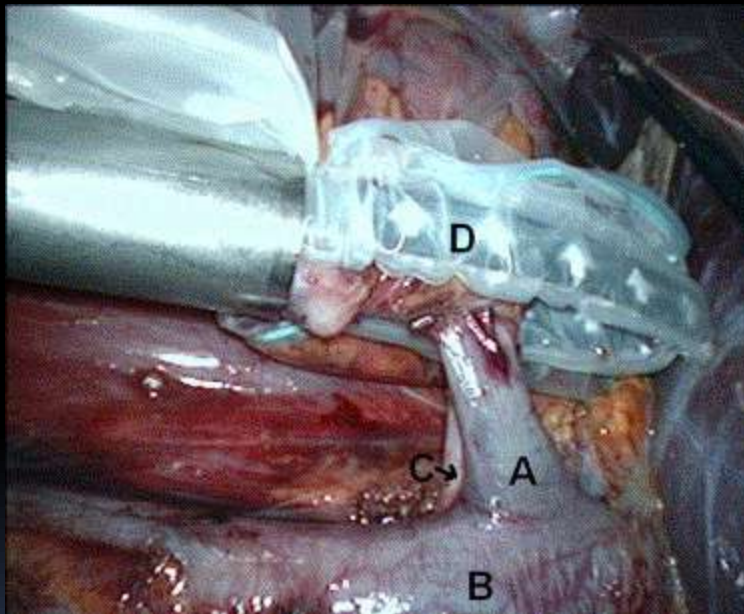


Laparoscopic (Keyhole surgery)

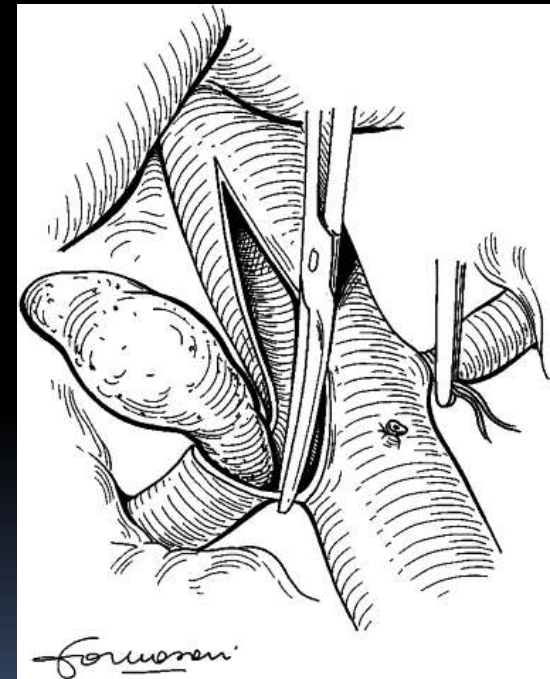
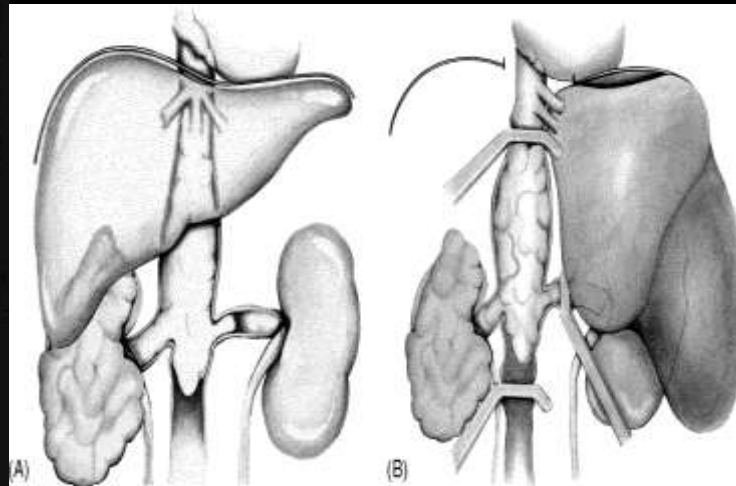
placement of abdominal ports. (A) Port site for vascular clamp. (B) insert: Satinsky clamp and surgical bolsters. U = umbilicus.



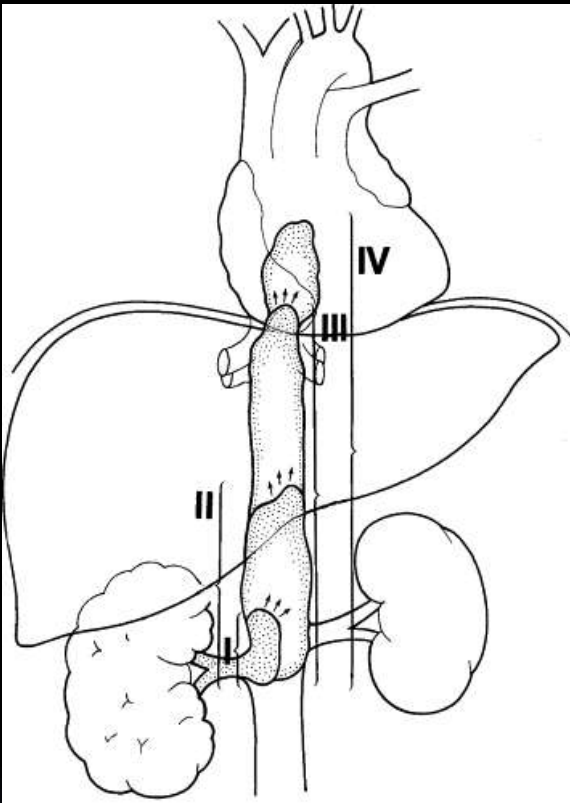
(A) Right renal vein, (B) vena cava, (C) right renal artery, and (D) metal ring Endocatch bag.



Tumours that have extended beyond the kidney=T3



TUMOUR THROMBUS EXTENDING INTO THE HEART



If a patient has metastatic disease should we remove the kidney?

- Evidence from studies in the past using interferon that there is a survival benefit
- With the new agents this remains an unanswered question

Surgery for metastatic disease

- Kidney cancer can spread to any site
- If metastases are solitary and can be excised completely then this gives the best chance of long term survival

Summary

- Small renal tumours-nephron sparing surgery
- Larger renal tumours confined to the kidney-laparoscopic nephrectomy
- Tumours extending beyond the kidney-complex surgery