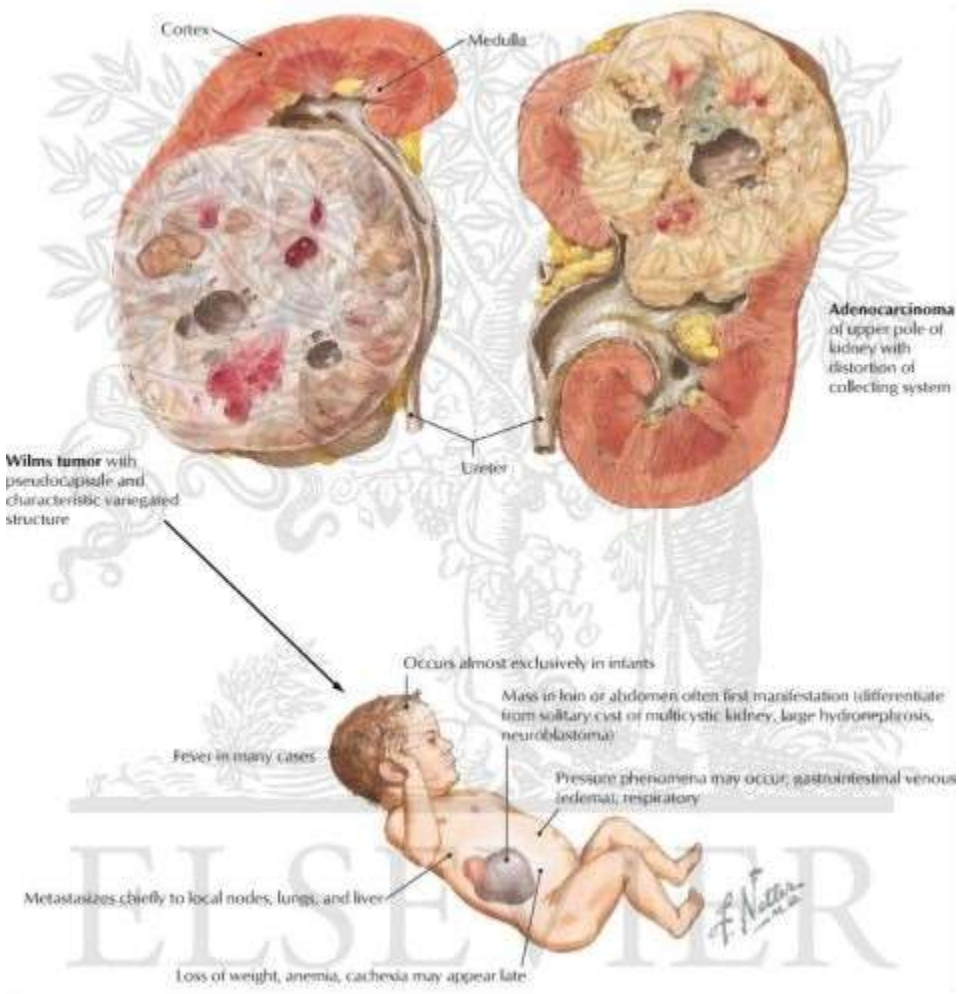
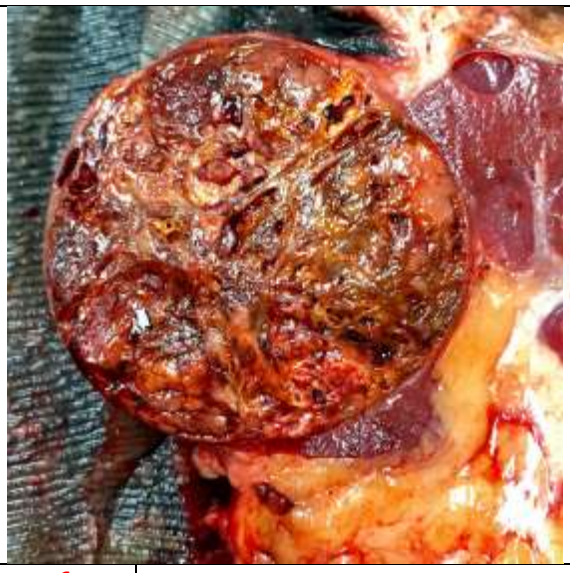
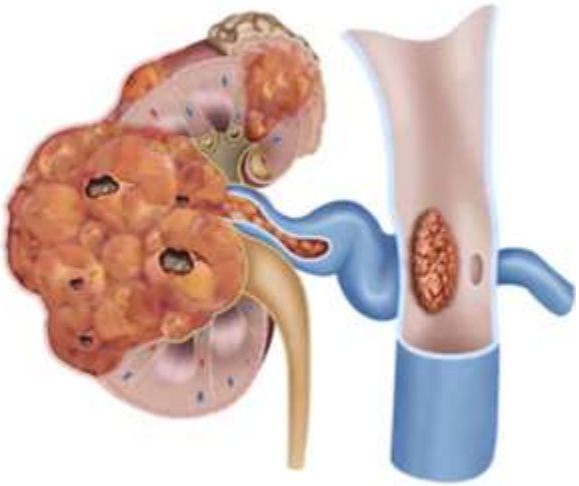
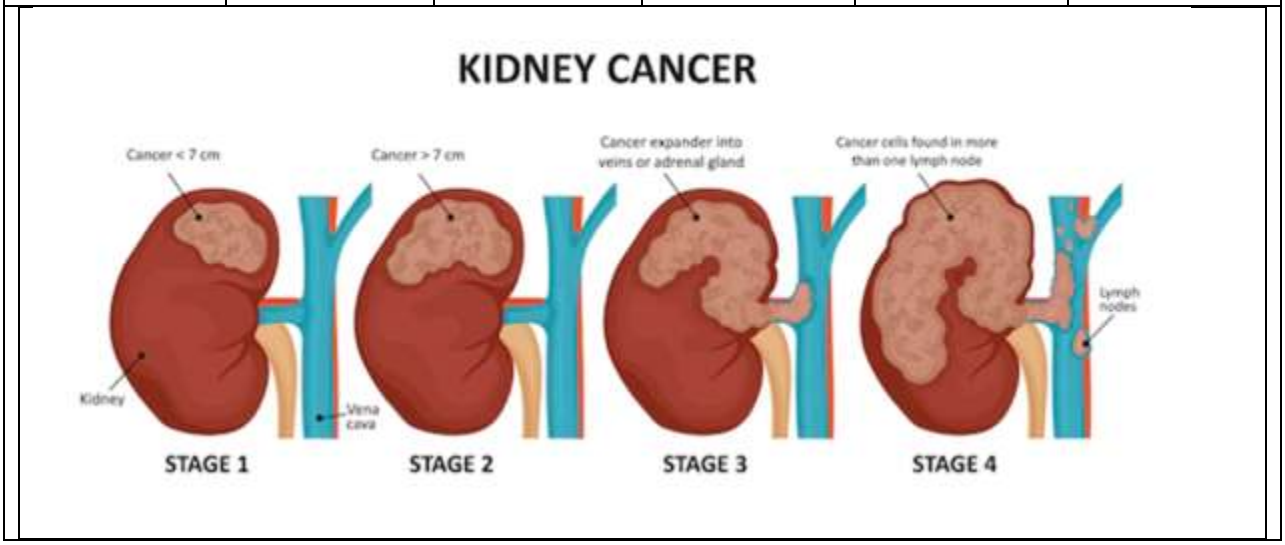


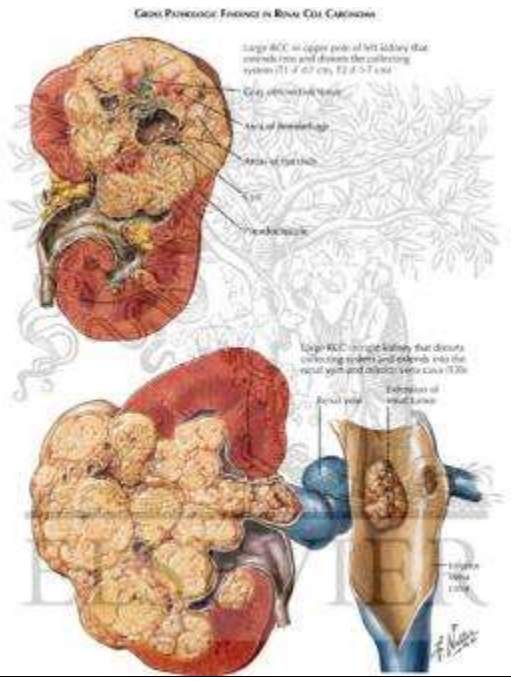
Hypernephroma (Grawitz tumour = renal carcinoma = hypernephroid carcinoma)	
Kidney:	• Shows a projecting mass in the upper part (a tumour) • False impression of enlargement • Parenchymal tissue proper is diminished • The cause of the enlarged-appearance is a tumour
Capsule:	• Thin and partial • Invaded (malignancy) • Broken in one area by the tumour
The tumour	• In the upper pole of the kidney • Large • Ovoid • Nodular

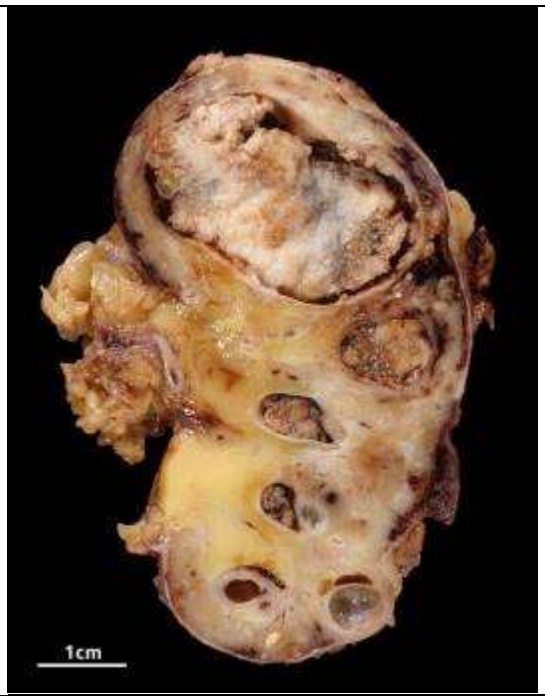




Cut surface:	• Variegated appearance • Opaque yellow areas and bright yellowish-white areas • Dark red haemorrhagic areas • Fibrous tissue strands and trabeculae (pale white) • Mucoid change (translucent areas) • Softening, liquefaction and necrosis (opaque yellowish) • Few small cyst-formations • Encapsulation (condensed compressed surrounding renal tissue)	
	Consistence:	Variable (soft and firm)
	Renal vein:	Shows an extension of the growth along it
	Renal pelvis:	Is invaded (malignancy) Ulcerated
	Ureter:	Invaded







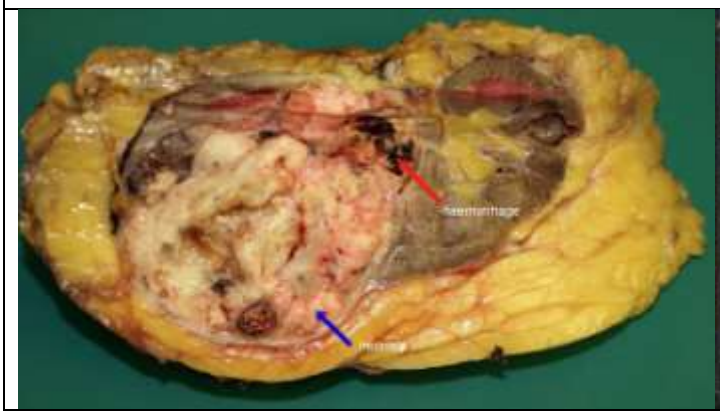
N.B.:

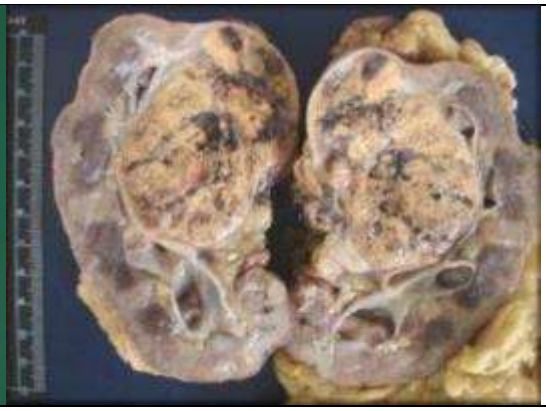
- The above characters of the tumour (including invasion and destruction of the renal tissue), point to malignancy.
- *The variegated appearance of the cut surface of the tumour and the age of the patient (50 years) point to renal carcinoma.*
- *The tumour is common at the upper pole of the kidney, is usually solitary and unilateral (though, it may occur anywhere in the kidney, and may be bilateral).*

Spread:

After a silent period, having a fibrous capsule (at first), the spread then occurs as follows:

1. Invasion of the capsule and the kidney.
2. Invasion of the veins (renal vein and even the inferior vena cava).
3. Metastases in: Lungs, bones and liver.
4. Regional lymph nodes.

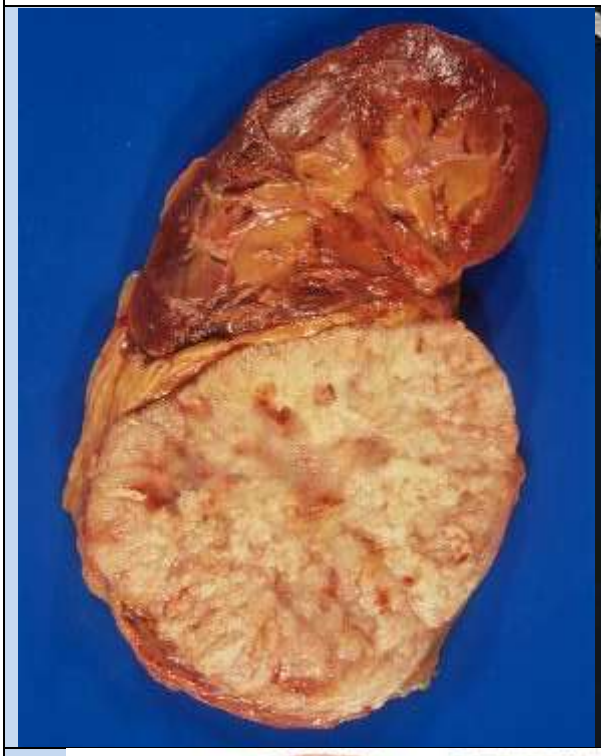


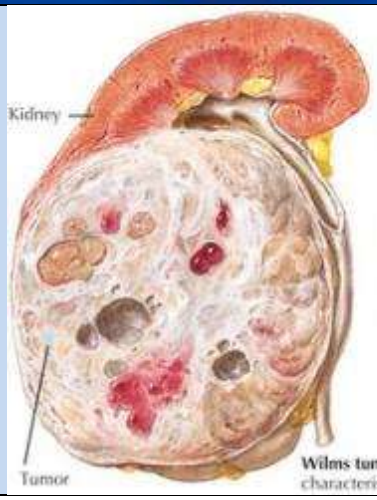


- *Clinically, the local symptoms (haematuria, costo-vertebral pain and a palpable mass) may be masked by constitutional symptoms (weakness, loss of weight, fever and malaize) or they may be preceded by the early clinical manifestations of the distant metastases.*

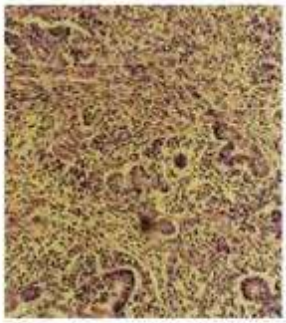
Special Characters:

1. Invasion of veins.
2. Cannon-ball appearance of metastases into lung (X-ray).
3. A solitary bone metastasis in: Upper end of Humerus, spine, femur, pelvic, bones or ribs.
4. Spontaneous fracture of bone.



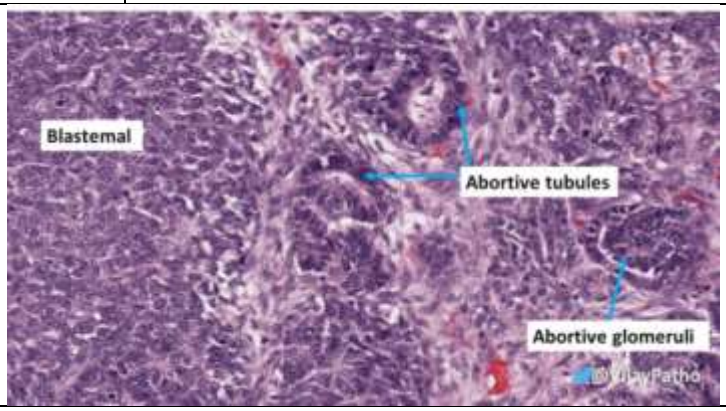


Wilms tumor. With pseudocapsule and characteristic variegated structure



Stroma of sarcoma-like spindle cells. With islands of malignant columnar cells in irregular tubular arrangements typical of Wilms tumor

Nephroblastoma (Wilm's tumour = embryonal adenosarcoma)		
Kidney:	• Shows a tumour	
	The tumour:	• At the upper pole of the kidney • Replacing most kidney-tissue and destroying it Solitary • Large and rather spherical & demarcated • Nodular • Capsulated by a thin layer of condensed renal-tissue
	Cut surface:	• Solid • Homogeneous (in general) • Opaque greyish-white • Divided into lobules
	Colour:	• Pink to brownish-red • Homogeneous in most parts
	Appearance:	• Sarcomatous (fish-flesh grey areas)
	Little foci of:	• Haemorrhage
	Necrosis:	• Firm (and variable)



N.B.:

- The above characters of the tumour and the age of the patient (3 years) favour the diagnosis of Wilm's tumour which was proved on microscopic examination.
- It is a developmental mixed tumour which forms one of the commonest malignant tumours of childhood.
- At first, it shows a dense connective tissue capsule and, when large enough, the capsule is ruptured and the tumour destroys the kidney-tissue.
- The tumour spreads to neighbouring organs and sends metastases to lungs; brain; adrenal gland; other visceral organs.
- Spread is by lymphatics and blood vessels to

Special characters:

1. No invasion of renal pelvis and hence no haematuria.
2. No pain.
3. Fever in many cases.
4. Early → a palpable rapidly-growing unilateral mass.