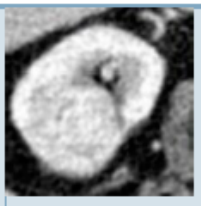
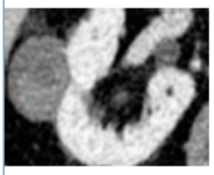
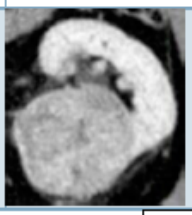
Urology CHEAT SHEETS

RENAL CELL CARCINOMA (RCC)

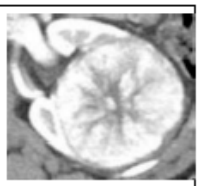
Classic triad <15%: palpable mass, hematuria, pain. 20-30% METASTATIC at presentation. 95% sporadic/5% familiar(all AD)
Most common RCC metastasis sites: lung-bone-liver **Most common mtx at kidney: lung carcinomas**
PARANEOPLASTIC SYNDROMES 1/3: **not necessary metastatic: HYPERCALCEMIA, STAUFFER SYNDROME (hepatic dysfunction with no mtx), POLYCYTEMIA, ANEMIA, HYPERTENSION.**

PROGNOSIS: worse to better: CLEAR CELL- PAPILLARY 2- PAPILLARY 1- CROMOPHOBE

	ORIGIN	GENES	CT	OTHERS/SYNDROMES
CLEAR CELL 75-80%	Proximal tubules	**VHL gene 3p**	 **Hypervascular, heterogeneous, contrast enhancement, necrosis, hemorrhage, cystic degeneration.**	**VHL: CLEAR CELL CARCINOMA BILAT. MULTIFOCAL +PHEOCHROMOCYTOMAS** + retinal angioma + hemangioblastomas nervous system
PAPILLARY 10-15%	Proximal tubules	**Type 1: cMet7q31** **Type 2: fumarate hydratase 1q**	 **Hypovascular** with **peripheral enhancement**	**Type 1:** basophilic **Type 2:** eosinophilic **(more aggressive)** **MOST COMMON RCC IN KIDS** **HEREDITARY PAPILLARY RCC:TYPE 1:Trisomy7-17** **HEREDITARY LEIOMYOMATOSIS AND RCC: TYPE 2:** Cutaneous, uterine leiomyomata
CROMOPHOBE 5%	Distal tubules	**Gene of folliculin 17p**	 **Hypovascular, homogeneous enhancement**	**BIRT-HOGG-DUBE SYNDROME: CROMOPHOBIC RCC + ONCOCYTOMAS** + cutaneous fibromas + pulmonary cysts

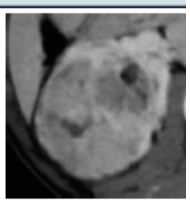
OTHER TUMORS

ONCOCYTOMA (benign):
5% Renal tumors
Homogeneous hypervascular.
Central scar



Radiograp: similar RCC: **SURGERY**
Distal tubules (histol. similar chromophobe RCC)
BIRT-HOGG- DUBE SYNDROME

ANGIOMYOLIPOMA (benign): FAT-10 UH
-Female predilection
-Epitheliod, paucity of fat: 1/3 malignant



-**Treatment (surgery/embolization):>4cm**
(consider early treatment in female desiring pregnancy)
WUNDERLICH SYNDROME: massive retrop. bleeding
TUBEROUS SCLEROSIS: 20-25% patients with AML. +pheochromocytomas, sebaceous adenoma, seizures, mental retardation. **EVEROLIMUS (Mtor-inh)**

CYSTS BOSNIAK CLASSIFICATION	CT	% MALIGNANCY	MANAGEMENT
I	**Benign simple cyst** (0-20 HU), thin walls.	~0%	Treatment in symptomatic. No follow-up
II	**Thin septa, fine calcification, <3cm**	<3%	Treatment in symptomatic. No follow-up
IIF	**Multiple thin septa and calcifications, >3cm**	5-10%	PERIODIC FOLLOW-UP (CT/MRI/US)
III	Thick or irregular septa, important calcifications. Contrast enhancement	~50%	SURGERY
IV	**Clearly malignant.** Thick walls, nodular areas, heterogeneous. Enhance with contrast.	75-90%	SURGERY

Esther Garcia Rojo @rojo_esther