

2nd seminare - nephro

* Normal Creatinine = 0.5 - 1.2 mg/dL

على وحدة $\mu\text{mol/L}$ $\times 0.0113$
عشان نحول
 $\text{mg/dL} = \text{micromol/L} \times 88.4$

- it depends in: gender, age, (muscle mass) \rightarrow The most important.
 \rightarrow increases creatinine

* we don't rely only on the normal range of creatinine, but rather we look at the patient's condition:

? Normal Creatinine = 0.6 \rightarrow creatinine (cachectic pt) \rightarrow muscle mass
- لا، صريح إننا بدي Normal range لكن المريض ما عنده muscle mass. فبنسبة
للثة العضلية اللي عنده (0.6) بتجيب كثير لازم يكون (0.5) أو أقل.
- ممكن إن كان early present 1mg/dL من مريض، الفوق الطبيعي عن الحامل:
 $\text{Volume} \uparrow \rightarrow \uparrow \text{GFR} \rightarrow \downarrow \text{creatinine}$

* We have 29, male, his creatinine = 1.6 mg/dL. How to approach this pt?

- after confirming the test, the possibilities:-



to approach any pt: (1) history (2) PE (3) investigation

(1) History: if the pt had a test, we can use it as a base line to compare

مثلا لو المريض عنده creatinine = 0.5 قبل ثلاث اشهر والـ 1.6 دلها دلها وكان = 1.6 دل هذا الشئ chronic or acute injury

if we don't have a base line \rightarrow we entertaining the possibilities.

مثلا، المريض عنده ~~كثير~~ قوه مريضه تقدر نتكلم ان acute دلنا. the chronic KD
 \rightarrow most common cause: DM, HTN, hyperlipidemia

\hookrightarrow Later in life

حتى دلنا... لكن ما نلجسك

Acute Kidney injury

post renal	Renal	Most Common - prerenal
<ul style="list-style-type: none"> - Obstruction (b/w pelvis of kidney to the urethra) 	<ul style="list-style-type: none"> ① Glomerular: inflammation ② Interstitial: <ul style="list-style-type: none"> - interstitial nephritis because of penicillin, cephalosporin. ③ Vascular: - vasculitis ④ Tubular: - most Common <ul style="list-style-type: none"> - acute tubular necrosis ↳ its extreme prerenal 	<ul style="list-style-type: none"> - drug toxicity - diarrhea, vomiting - long fasting - NSAIDs, diuretic ^{like} - ACE inhibitors → block RAS sys. - ARBs - Cyclosporine → Cause v. vasoconstriction of afferent arteriole.
<ul style="list-style-type: none"> old pt prostate CA Bladder CA benign prostate hypertrophy - stones - Neurogenic bladder because of DM - Disk prolapse. 	<ul style="list-style-type: none"> young - Stones - MS - congenital (single kidney recurrent UTIs) 	

ask about: Comorbidities (HTN, DM...) & family poly cystic kidney dis, dialysis at early age & transplants Alports...

② Physical Examination:-

vital signs (most important)

- Look for JVP, mucosal membranes, face (pallor, rash, alopecia, signs of anemia)
- Fundoscopy: - (DM & HTN changes)
- ~~look~~ scratch marks, palpable masses

↳ PKD

Chest: → ejection systolic → aortic stenosis - secondary HTN.

②

5 stages of chronic kidney disease (if GFR):-

↑ 90 → First stage

60 - 89 → Stage 2

30 - 59 → 3 → Complications starts here.

15 - 29 → 4

↓ 15 → 5

③ Labs:-

- CBC → if anemic → chronic
- Urine analysis → "really a must" → it shows abnormalities, although it doesn't differentiate b/w acute & chronic..
- calcium, phosphorus & PTH (parathyroid hormone)
if chronic → hypocalcaemia, & high phosphorus and PTH

potassium, urea
BiCarbonate.
don't differentiate
b/w chronic & acute.

→ Then we ask for imaging without contrast or ultrasound

& Normal sized kidneys with chronic kidney dis:-

- ① PCKD
- ② chronic hydronephrosis
- ③ angiodosis ~~multiple myeloma~~
multiple myeloma.
- ④ DM
- ⑤ HIV

Biopsy ← إذا وصلنا للصون وعايننا بعض شي ←

③