

Stones

In kidney :-

→ upper calyx .

→ lower calyx

2 cm Stone
 $< 2\text{ cm} \Rightarrow$ PCNL (percutaneous nephrolithotomy)
 $> 2\text{ cm} \Rightarrow$ ESWL (shock wave lithotripsy)

1.5 cm Stone
 $< 1.5\text{ cm} \Rightarrow$ PCNL
 $> 1.5\text{ cm} \Rightarrow$ ESWL

المنطقة التي يعتمد عليها stone في difficulty to pass.

PID (percutaneous inversion dialysis)
 Stone 1.8 cm
 avoid PCNL

Stages .

PCNL → litho position → sethroscope → tigrone → urine
 puncture → orifices & Bladder neck
 prone position → kidney
 Sheath

علائق
Breeding.
تیمپورال

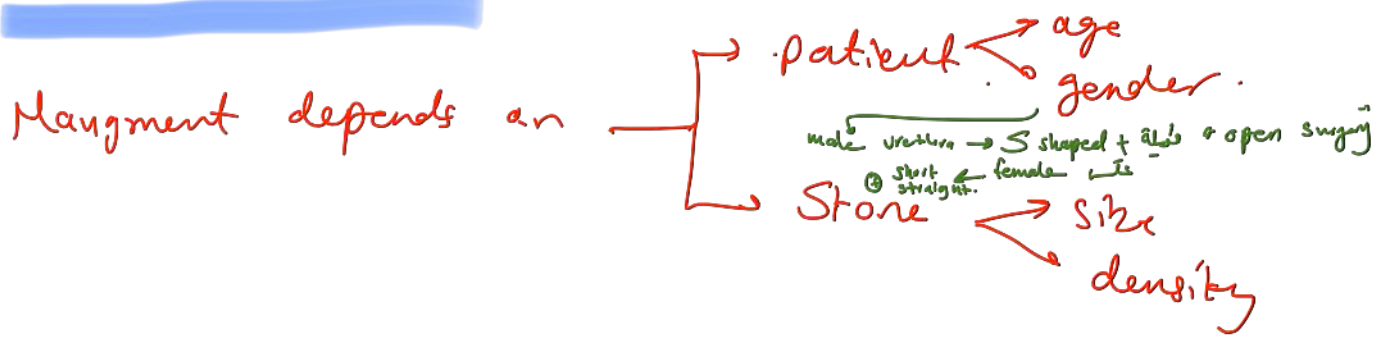
علاءه فیکم الدکتور المحنّد ولسه الدکتور المناوب .

exploration - تفقّ لمريضا

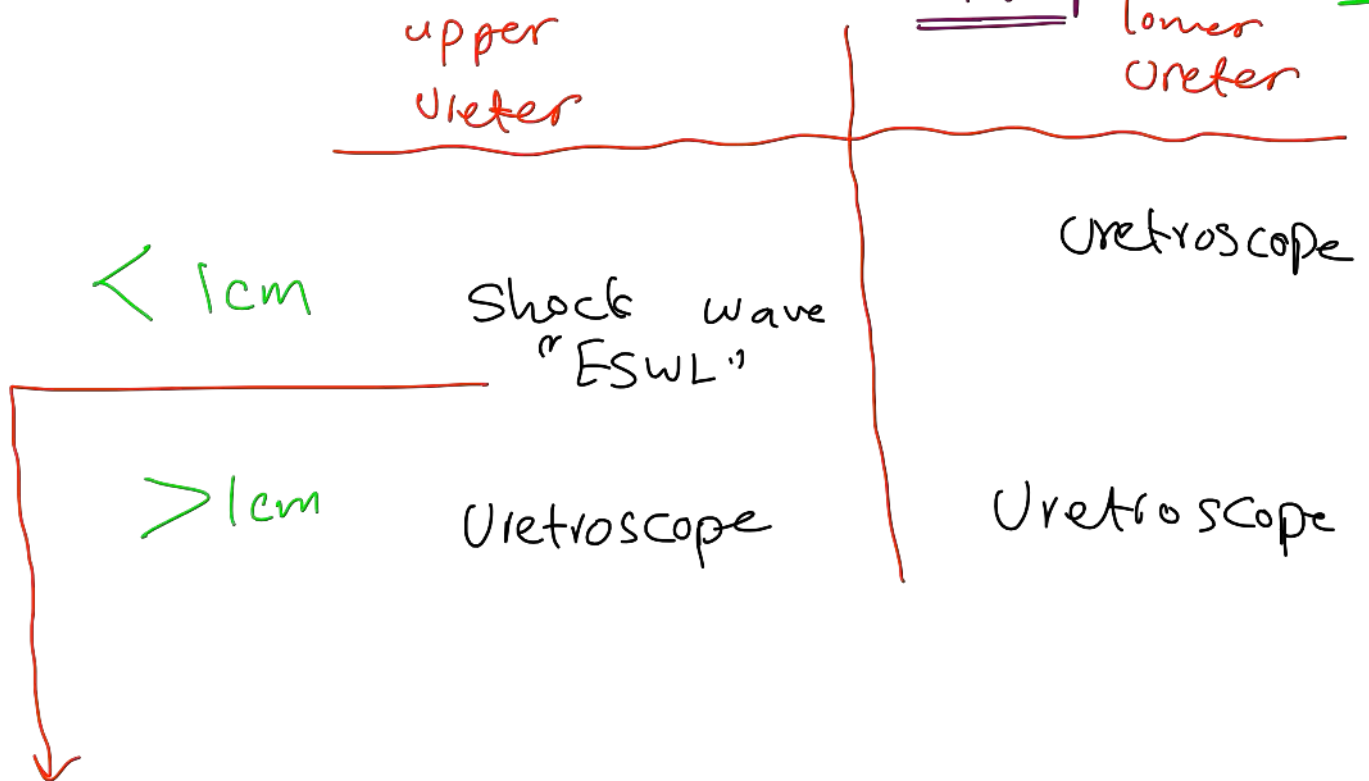
⇒ bleeding up to

highly selective angio-embolization

Bladder Stones



Ureter Stones :- The best option overall is ureteroscopy ~ 1"



آلة الصدمة التي تعمل في Shock wave
 stone in upper ureter
 أقل من 1cm =



بينة shock wave أو contraction في أنس وها

مفيدة لأنه يفتح muscles على lower ureter pelvic muscles

→ most common cause of stone disease is. **dehydration**

→ commonest type of stone : **ca oxalate**

→ % of radiopaque stones : 90%

→ % of patients with stone diseases that have metabolic defects:- 97% ↓
سنة ٩٥

↓
سنة فرس
with stone formation
← عنه ال
197 ← metabolic disorder

→ Most common metabolic abnormality :- hypercalcaemia

↓
abbreviated . مختصر

* patient with first attack of stone disease

① history

- ask about?

- dehydration
- UTI
- Bowel resection
- hyperhydrosis (قشر، حرق)
- family history.

صِفَةُ صِدْقِهِ
أَكْلُهُ وَشَرِبُهُ بِمَنْ عَالِمٍ

24 hour
urine
collection

لنفتي Ca^{2+} فيه

المريض حاد
• Stone
• stent
• infection
free

↓ **موسع**
extended.

for whom?

- patient at risk for stone formation like: pediatric age group.

- patient with large stone or bilateral stones

- patient with congenital anomalies (ectopic kidney, horseshoe kidney, solitary, --)

- unusual stone composition

2 examination

A general

- parathyroidism • enlargement or swelling
- look at dehydration signs

dry skin, mucus, eyes and mouth.

axilla
↓
should be wet at all conditions

لا يجب أن تكون رطبة
لا يجب أن تكون جافة
في كل الأحوال لا يتم تلمس
عجز مائة
dehydratation dry

all types of stone are abnormal except Ca oxalate
يعتبر الحصى الذي قلته ان يتأثر
الكلية renal colic على هيئة عجز

كل احدى في الفحص يتم بهن gloves بايدي axilla, testis, penis
لا يجب أن تكون رطبة + ulcer او اذا كان عند الطبيب فخرج في ايده .

B Local .

kidney, prostate, ...

3 examination .

- Urine analysis → pH

- WBCs
- RBCs
- Na⁺, K⁺, Ca²⁺
- urates

2
elevated serum

1
Clinical manifestations of enlarged parathyroid hormone

hypertension

Hyperoxaluria

Causes :-

Ca normally binds to oxalate to form calcium oxalate

But in conditions associated with fatty acid malabsorption Ca^{2+} binds to free fatty acid leading to $\uparrow$ free oxalate therefore $\uparrow$ oxalate absorption.

1 dietary hyperoxaluria.

"أكلنا"

oxalate found on - Nuts

vitamin C

- beets

- beans

- green vegetables

2 $\uparrow$ [enteric hyperoxaluria] intestinal absorption of

oxalate $\rightarrow$ due to fatty acid malabsorption (chronic enteric hyperoxaluria)

• Tumors

Stones $\rightarrow$ moderate amount of Ca

3 primary hypercalcemia.

$\rightarrow$ due to deficiency of gamma amino-transferase enzyme

which synthesised in liver

is a Co factor B₆ VI

Kidney stones $\rightarrow$ kidney stones

1 confirmation the diagnosis with liver biopsy.

2 Do liver transplantation before kidney transplantation.

أكلنا

