

Emergency of urology

Testicular Torsion

* testes necrosis, Inflammation, epididymis

* The early Diagnosis is ideal for treatment the torsion testes

* twist of spermatic cord ~~twist~~ around itself, the twist usually from [outward to inward]
(من الخارج الى الداخل)

* twist of testes, blood flow, epididymis

* arterial supply of testes is 3 artery

- testicular a. → from Abd Aorta
- artery of vas → Inf Vesical a.
- cremasteric a. → from Inf epigastric a.

Venous Drainage

- Rt testes → Direct to IVC
- Lt // → to renal vein

* twisting of testes, Venous blood flow, compromised

edema, congestion, strangulation (artery/vein)

* Spermatic Cord, 18°, 27°, 36°

Critical time for ~~testis~~ torsion is 6 Hours

* testes ischemia, 6 hours

[from inward to outward] ← detorsion deti management ←

testicular torsion

extra-vaginal $\hookrightarrow$ (2)

Intra-Vaginal Type

* الحلة تكون فالـ *Covernaculum*

* occur in adolescent age group

* The commonest Type 80-90%

* The testes in high investment to tonica vaginalis

testes et utero tunicæ et chlamyde vaginalis

وطالعة لغوق شوية فال testes تكون vaginalis

Free mobile, داخل الtonica وبيالي بسمه
[torsion]

* called [bell clapper deformity]

- * bilateral

ذلك management لا

نحوف ال Contralateral
testes

* History

- sudden onset of severe pain → Diffuse or Hemi-Scrotum
- the pain radiate to epigastrium or to affected flank side → (T11 & T12 is testes & nerve & supply)
- no fever or low grade fever with ischemic
- nausea, Vomiting
- History of trauma

* Exam

- Diffuse swelling
- over line skin as Inflammatory sign (erythema, Hotness)
- severe tenderness
- Asymmetric in testes → the affected testes is Higher than the normal testes and may be found in transverse position

(Infection) epididymorchitis	torsion testes
scrotum & elevation & pain & relieve (positive prehn's sign)	scrotum & elevation & pain & relieve (negative prehn's sign)
* positive cremastric reflex finger & stroking & testes (ipsilateral) medial thigh	* Abscent of cremastric reflex (negative cremastric reflex)

* Management plan

① History → skip

ملاحظة // فال Hx يدل على voiding symptom
lower urinary tract symptoms
لأنه أحياناً يكون
irritative symptoms
epididymitis
orchitis
ملاحظة * // يدل على face swelling
mumps orchitis

② examination → skip

ملاحظة * // torsion لا يدل على low grade fever
high grade fever
لأنه لو كان low grade fever
neglected infection لا يكون
(في بعض الأحيان)

elevation of scrotum not relieve the pain

ملاحظة * // يكون orchitis absent of cremasteric reflex

③ Investigation

lab → CBC, UA
image

* The imaging of choice in testicular torsion

is Colour Doppler US

hypervascularity يكون ← Infection
low-vascularity يكون ← torsion
Vascularity assessment

دعوت // dont waste your time in the imaging, If you have clinical suspicion of testicular torsion go to exploration

(فحص us او فحص مقل 24 ساعة) facilities + clinical suspicion of testes torsion المثلث mcg

الكل ideal فيه الحالة go for exploration
فحص ال testis

(ال radiologist مقل 24 ساعة) tertiary Hospital + clinical suspicion for testes torsion

ال ideal في Doppler US
Infection exploration
torsion

* DDx of testicular torsion

- ↳ epididymo-orchitis (Infection)
- ↳ uretric stone
- ↳ hematocele
- ↳ inguino-scrotal Hernia
- ↳ torsion of testicular appendages

* The ideal treatment in suspicion of testicular torsion is → scrotal exploration

ملاحظة // حالات ال torsion هو intra-vaginal كون congenital anomalies
exploration ال affected ال contralateral testes [bell clapper deformity]

* خطة الملاحة // بعمل exploration على ال affected وبعمل teste
 [detorsion from inward to outward]

بهذا يرجع ال vascularity وبعدها شوف ال color بق ال testes
 فلو كانت viable بعمل fixation (orchidopexy) وإذا كانت
 gangrenous بعمل (orchidectomy) لكن لو كنت محتار فاللون (Color indigent)
 على ال testes من 15-10 د وبنجس التخدير بعمل Hot fomentation

ال oxygen 100 % $(\frac{PI_{O_2}}{100})$ فإذا لم improve فال color

بعمل fixation لا ال testes وإذا ال color زي هو بعمل
 orchidectomy و طبعا بعد منخل ال affected بنز ال ال other testes side

وبعمل fixation فال Contralateral testes (orchidopexy)

الحالة الوحيدة الي نعمل فيها fixation لا ال Contralateral testes
 هي حالة لو كان فيه severe Infection in affected side

Phimosis

Paraphimosis وفيه Phimosis في *
 emergency لا في ال not في emergency

* Phimosis

* occur in uncircumcision ~~then~~ patient

* occur in pediatric age group

في (prepuce) foreskin contraction و narrowing في *

glans exposure def in retraction ~~retract~~ lips

(The meatus of ~~the~~ prepuce don't allow full retraction)

narrow of ^{cor} meatus foreskin II -

* ال Phimosis في هذا أنواع ←
Physiological
phimosis

Physiological phimosis

- at birth
- adhesion between epithelium of foreskin and glans

accumulation of epithelial debris erection of penile growth spontaneous desu. - resolution

فتالي بهج gradual separation بين ال inner epithelial of perstin و glands

* less than 1% presented at age of 17 year

circumcision ~~ليس~~ لا يوجد في أقل من 1% في سن 17 سنة

Bx0 no Inflammation, recurrent balanitis $\rightarrow$ physiological $\times$ Phymosis

severe narrowing $\rightarrow$ Asymptomatic $\times$ physiological Phymosis

ballooning of foreskin $\rightarrow$ obstructive $\rightarrow$ lower UT symptoms

inability to fully retract the foreskin $\rightarrow$ male $\times$

Balanitis $\rightarrow$ Inflammation $\times$

Bx0 go associated $\rightarrow$ phimosis $\times$



glans of penis $\rightarrow$ white itching plaque

* Treatment of Phimosis

* The ideal management is Circumcision

elective $\rightarrow$ Infection $\rightarrow$ elective $\rightarrow$ Circumcision

* $\rightarrow$ Refuse $\rightarrow$ Circumcision $\rightarrow$ Preputioplasty

Prepuce $\rightarrow$ Prepuce $\rightarrow$ Prepuce $\rightarrow$ Prepuce

* Indication for circumcision in pediatric age group

↓
فائدة

* Contraindication of circumcision in pediatric age group

① → hypospadias (The meatus is ventral surface of penis)

لأنه فال hypospadias به يرجع ال meatus مكانه

فيمكن أن يحتاج skin graft
fore skin من الجلد

② → small penis

③ → large hernia

④ → hydrocele

* Paraphimosis

* emergency situation

تعريف * inability to pull forward a retracted foreskin over the glans of penis

يعني عند سحب foreskin عن مكانه exposure لل glans

فإن foreskin كان tight ~~High~~ كان strangulation على penis

وبالتالي obstruction لل vessels / أول شيء obstruction لل venous outflow

يعني congestion و edema في penis ال obstruction وبالتالي arterial insufficiency

[يعني فال أول بـ affection لل venous ثم arterial]

* لو مكانش فيه early treatment يدخل المرء في necrotizing fascitis

⑨

* Risk factor for paraphimosis

- ① Phimosis → (tight foreskin)
- ② indwelling urethral catheter
- ③ poor hygien

Phimosis → Para → risk factor

* Presentation of Paraphimosis

glans & exposure & foreskin & para & tightness
affecting penis & compression tightness

arterial & venous circulation

- 1-) swelling → due to affection of venous circulation
- 2-) ^{ischemic} Pain → due to arterial compression
- 3-) If ~~neglected~~ neglected lead to ischemic necrosis & gangrene & fascitis

* Management of Paraphimosis

- The ideal (standard) is Circumcision → & refuse preputioplasty & circumcision

longitudinal & transverse
foreskin wide &

* الهدف من ال management انو reduction لل constriction

عن طريقه انو تخفف ال edema

← اذا فال early presentation (ischemia) بنجل
Application of steroid

go lubricant و بسبب ال retracted foreskin

← اذا فال delay stage و بيا بنجل Vascular Compromization بنجل surgical management under anaesthesia

local or general (penil block)

ملاحظة // فال pediatric بنجل general anaesthesia و بنجل local

* هناك طرق اخرى فالعلاج

① ← في طريقة ال iced glove method
← انو بيا بنجل فال gloves او كودوم و بلسه لا Penis و بنجل VC
reduce بنجل the swelling

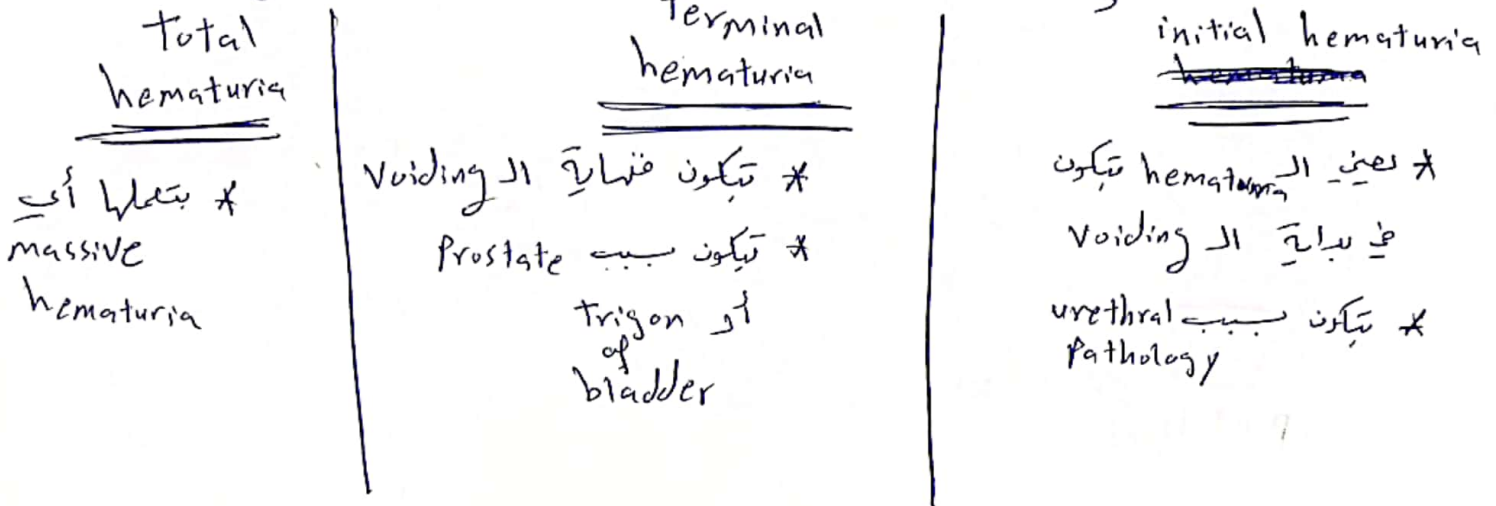
② ← في طريقة ال granulated sugar
← بيا فال gloves او كودوم و بلسه لا Penis بنجل فتخف ال edema
لانو ال sugar ال osmotic effect

③ ← في طريقة ال Dundee technique
← بنجل ال sterilization و بنجل local anaesthesia
و بعد هيك بنجل بال middle 20 ل 30 whole
فال skin و بنجل فتخف ال edema
← مشكلة هذه الطريقة انها بتزود ال risk ل infection

Hematuria

* hematuria له تصنيفات كثيرة منها

→ according to voiding



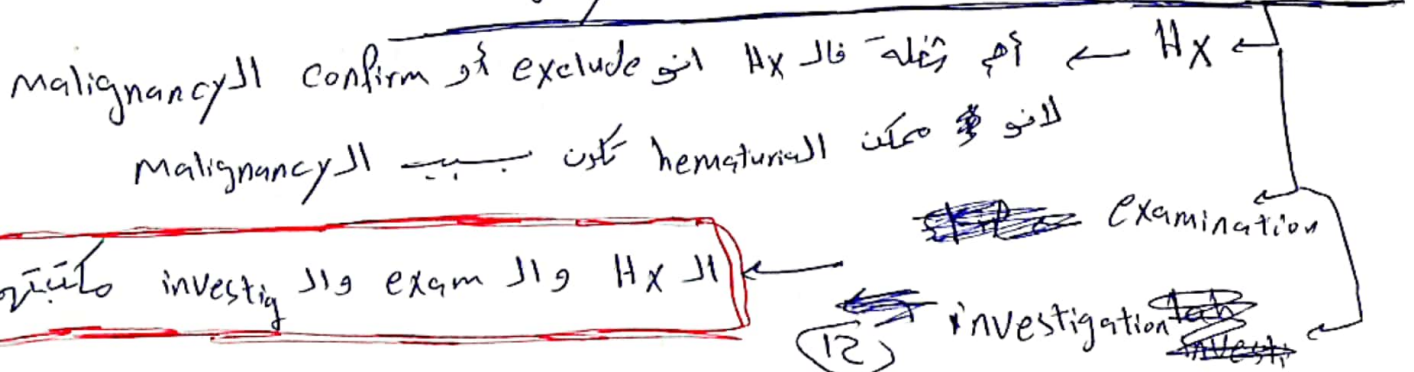
* hematuria التي يكون معها Protein و RBC و dysmorphic RBC في البول
تسمى nephrology مثل urology

* أسباب hematuria ← جدول فالتالي كبير

* ملاحظة // في بعض الـ Drug يسمى pseudohematuria مثل Rifampicin

red discoloration of urine

* كيف نتعامل مع حالة hematuria في emergency



Prostate malignancy لا يمكن أن يكون Prostate malignancy
Digital rectal examination

* Sign of prostate cancer in Digital exam

- ① Asymmetric
- ② Hardness
- ③ Palpable nodule
- ④ obliteration of medial sulcus

* indication for Hospital admission for hematuria

① If the pt → hemodynamic unstable

② clot retention

hematuria كثرت الدم في البول
clot retention احتباس الجلطات

bursting pain - ألم مفاجئ شديد
severe pain

continuous irrigation - الري المستمر
three way catheter - قسطرة 3 طرق

③ If the hematuria due to trauma (associated trauma)

④ use Anticoagulation

⑤ associated with loin pain

Acute urinary retention

bladder لا يستطيع ~~تحتوي~~ urine لا يخرج *
inability to pass urine despite of strong desire to urination

* Causes → male
 → female ~~فان لا~~

called
under-active
bladder
(Atonic bladder)

← detrusor muscle Contractility ~~فان لا~~ *

~~فان لا~~ *

* ~~فان لا~~ Coordination ~~فان لا~~ detrusor muscle و sphincter

DSD (detrusor sphincter dyssynergia) ~~فان لا~~

DSD lesion ~~فان لا~~

① supra-sacral spinal cord injury

(Pons ~~فان لا~~ micturation center)

② multiple sclerosis

[relaxation of sphincter
Preced the contraction
of Detrusor]

relax ~~فان لا~~ of
sphincter

First ~~فان لا~~ act
of Voiding

* presentation

- severe bursting pain with desire to void without passage of urine

management

→ Hx → skin

retention $\rightarrow$ $\downarrow$ Drug $\rightarrow$ $\rightarrow$ $\rightarrow$ *

① Anticholinergic

② α agonist

→ Examination

→ supra-Pubic bulge, tender and dull on percussion

→ HTW due to retention

→ Digital examination → for prostate cancer

→ treatment → Drainage

Treatment of retention

① urethral catheter → Poly catheter

له یعنی catheter بخوا من ال urethra

② - لو محدثش ال Poly Catheter

لو ال catheter وقت بعد 5 cm مثلاً غالباً
فيه Stricture فال urethra فوجب catheter آخر
واكثر rigid شان تهرى فال Stricture

لو ال catheter وقت بعد 5 cm يعني عند ال prostate

فوجب Coude catheter (curved tip catheter)

③ لو فشل السابق وبرضو ال catheter محدثش
هناك ب ال flexible cystoscopy (بدخل من ال urethra وشوف
retention ال شوي ب)

④ Suprapubic Catheter آخر شي ال

قبل تركيب suprapubic catheter في ال mandatory لازم اعلم وهو
انك بيجل US شان exclude bladder tumor

أجل mandatory لازم supra pubic bladder قبل * / مروية

لأنه لو فيه exclude bladder cancer عشان

US

supra pubic catheter, Contraindication فيه bladder tumor

supra pubic catheter Contraindication مع Anticoagulant * *

فقد بسبب المرض أو دوائه شوية bleeding

* بعد ال retention ممكن المرض polyuric stage

نتيجة ال post obstructive diuresis

poly catheter $\xrightarrow{\text{next step}}$ coude catheter $\xrightarrow{\text{next}}$ flexible cystoscopy

supra pubic catheter $\xleftarrow{\text{next}}$