

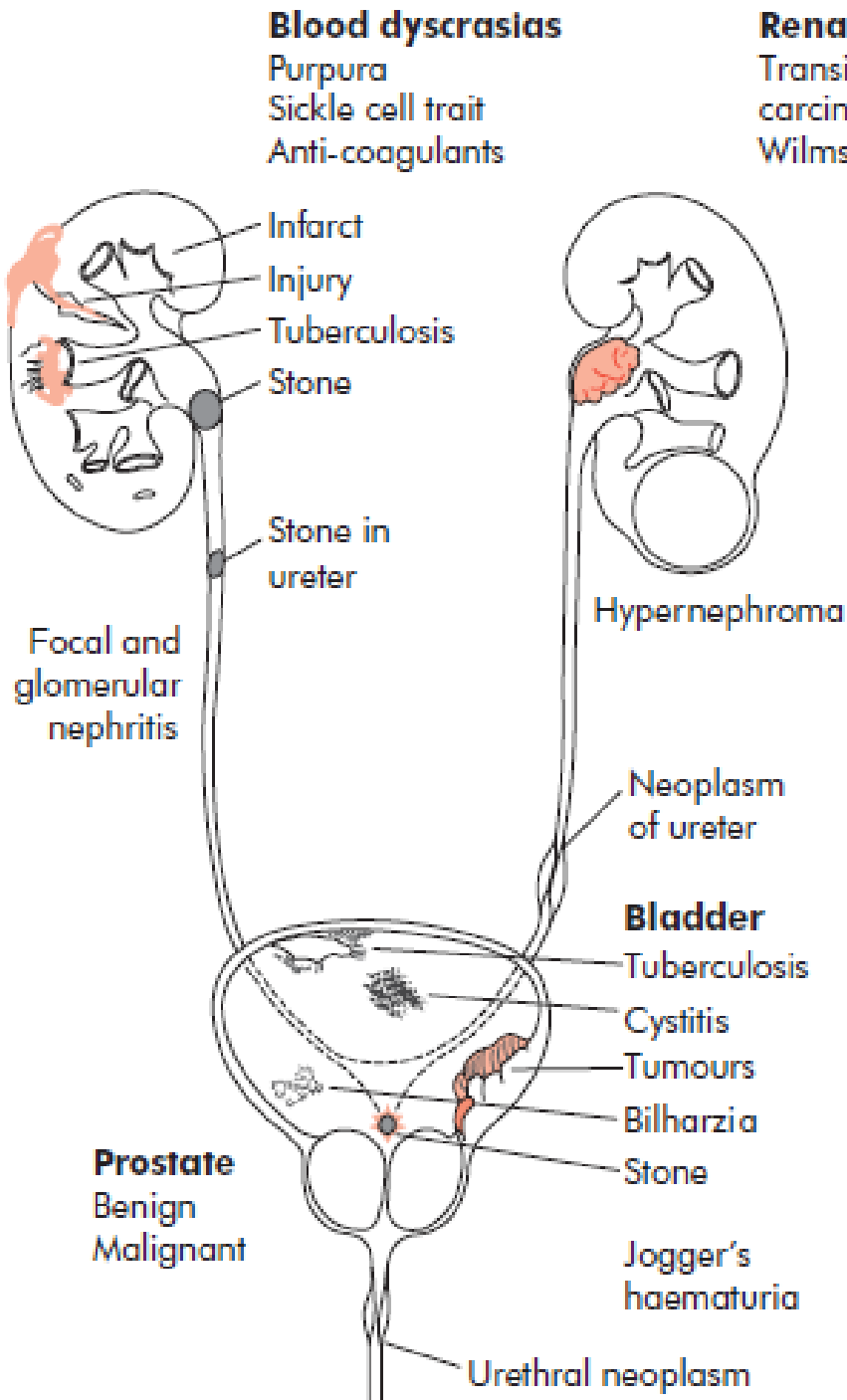
URINARY SYMPTOMS

Hematuria

- Hematuria is the presence of blood in the urine
- It may be the only indication of pathology in the urinary tract (see the figure below).
- Tiny amounts of blood that are insufficient to stain the urine (**microscopic hematuria**) may be detected by dipstick testing as part of a routine health check.
- A substantial haemorrhage into the urinary tract will give the urine a red or brownish tinge (**macroscopic haematuria**) and the patient may pass blood clots.
- False-positive stick tests and the discoloured urine caused by beetroot جذور الشمندر and some drugs [e.g. Furadantin (nitrofurantoin)] can be distinguished from haematuria by the absence of red blood cells on urinary microscopy.
- Haematuria may be intermittent or persistent.
- Blood appearing at the beginning of the urinary stream indicates a lower urinary tract cause, whereas uniform staining throughout the stream points to a cause higher up.
- Terminal haematuria is typical of severe bladder irritation caused by stone or infection.
- If the patient experiences pain with haematuria, the characteristics of the pain may help to identify the source of the bleeding.
- If there is a malignant cause for the haematuria there is usually no pain.
- All patients with haematuria should be investigated even if they are taking anticoagulant drugs.
- In a significant proportion, all tests will be negative: the chance of finding a urological cause in patients less than 40 years of age with microscopic haematuria is particularly small.
- However, bleeding into the urinary tract may be caused by an occult nephropathy so it is important to check for significant **proteinuria** and **hypertension** in these patients.

Haematuria (Box)

- Is always abnormal whether microscopic or macroscopic
- May be caused by a lesion anywhere in the urinary tract
- Is investigated by:
 - Examination of midstream specimen for infection
 - Cytological examination of a urine specimen
 - Intravenous urogram and/or urinary tract ultrasound scan
 - Flexible or rigid cystoscopy
- Is commonly caused by urinary tract infection, especially in young women



The more common causes of haematuria.

"Joggers haematuria" results from repeated **jarring** خَصَّ ؛ إهْتِزَّاز ؛ إرْتِجَاج of the bladder during **jogging** هَرْوَلَة or long-distance running.

Pain

Renal pain

Causes:-

1. Inflammation
 2. Acute obstruction to the flow of urine from the renal pelvis
 3. Renal calculi although they may be too small or peripherally placed to cause obstruction and even in the absence of infection
 4. Very large masses such as tumours or cysts (small ones are not usually painful)
- Renal pain typically felt as a deep-seated, sickening ache in the loin if it is caused by the inflammation or pelvic obstruction. It is probably the result of stretching of the capsule of the kidney.
 - Calculi in the kidney cause deep-seated constant severe pain or colic
 - When the cause is inflammatory, there may be local deep tenderness and occasionally reflex spasm of the psoas muscle, leading to involuntary flexion of the hip joint.

Ureteric colic

- This is an acute pain felt in the loin and radiating to the ipsilateral iliac fossa and genitalia.
- The patient often rolling in bed. This is in contrast to patient suffering from peritoneal pain who lies still to avoid exacerbating the pain by movement.
- Ureteric colic is usually caused by the passage of a stone, but blood clot or sloughed renal papilla may give identical pain.
- The site of the pain is a partial guide to the progress of a stone: the more the pain radiates into the groin, the more distal the stone
- Local tenderness is much less than would be expected from the severity of the pain.

Pain from the upper urinary tract (Box)

- When caused by acute obstruction of the renal pelvis, is typically fixed deep in the loin and 'bursting' in character
- When caused by acute ureteric obstruction (usually by a stone), is colicky with sharp exacerbations against a constant background
- Is liable to be referred to the groin, scrotum or labium as calculus obstruction moves distally in the ureter

Bladder pain

- Bladder pain is felt as a suprapubic discomfort made worse by bladder filling.
- In men, the pain may be referred to the tip of the penis due to irritation of the trigone of the bladder.
- Severe inflammation of the bladder can cause an extreme wrenching *بدرجة مؤلمة* discomfort at the end of micturition.

Perineal pain

- The usual cause is '**chronic prostatitis**', '**prostadynia**' or '**chronic prostate pain syndrome**', but it occurs in both men and women
- Felt as a penetrating ache in the perineum and rectum, sometimes with associated inguinal discomfort.
- The patient is characteristically depressed by pain.
- It is difficult to treat successfully.

Urethral pain

Urethral pain is a scalding or burning felt in the vulva or penis, especially during voiding.

Pain from the lower urinary tract (Box)

- Is commonly felt as subrapubic discomfort, worsening as the bladder fills
- When caused by cystitis, typically has a burning or scalding character felt in the urethra on micturition
- May be referred to the tip of the penis in men, even when lesion is in the bladder

Altered bladder function

- The normal bladder has two distinct phases of function. During the **filling phase** the bladder acts as a reservoir to collect urine until it is emptied in the **voiding phase**.
- Inappropriate contraction of the bladder detrusor muscle during filling (**instability**) is perceived as a sensation of urgency to pass urine.
- The patient may have **frequency of micturition** and a tendency to **urge incontinence**.
- Sleep may be disturbed by **nocturia**.
- Instability may be **idiopathic** in either sexes or part of the bladder response to **outflow obstruction** e.g. in men with enlargement of the prostate.
- When detrusor instability has a demonstrable neurological cause, it is known as **hyperreflexia**.

In out flow obstruction:-

- **Symptoms of impaired emptying** are most commonly the result of bladder outflow obstruction (BPH), but detrusor failure presents a similar picture.
- Here, the patient has difficulty initiating voiding (**hesitancy**) and the **stream is narrow and slow**. Abdominal straining improves the weak flow.
- When the act of micturition is completed, there may be a **feeling that urine remains in the bladder** so the patient tries voiding again.
- With time, the bladder becomes chronically overfilled and the urine spills out, typically at night.

Altered bladder function (Box)

- Failure of the storage function of the bladder leads to urgency and frequency of micturition, often by day and by night
- Failure of the emptying function of the bladder is most commonly caused by obstruction to the bladder outflow (e.g. by prostatic enlargement) but can also be caused by weakness of the detrusor muscle
- Chronic retention of urine may present as nocturnal Bedwetting

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

رَبِّ اشْرَحْ لِي صَدْرِي (٢٥) وَيَسِّرْ لِي أَمْرِي (٢٦) وَاخْلُفْ عَقْدَةً مِنْ لِسَانِي (٢٧) يَفْقَهُوا قَوْلِي

صدق الله العظيم

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَلَا تَقُولَنَّ لِيْ شَيْءٍ إِنِّي فَاعِلٌ ذَلِكَ عَدَا (٢٣) إِلَّا أَنْ يَشَاءَ اللَّهُ وَادْكُرْ رَبَّكَ إِذَا نَسِيتَ وَقُلْ عَسَى أَنْ يَهْدِيَنِّي رَبِّي لِأَقْرَبَ مِنْ هَذَا رَشَدًا (٢٤)

صدق الله العظيم

muqdad fuad

Forever is only the beginning!