

A 57-year-old man complains of a five-week history of pain in the right hypochondrium and of passing frank blood in his urine on several occasions. He has not noticed a reduction in the stream of urine and has not complained of any other urinary symptoms. Examination of urine confirms the presence of red cells. He attends the 'one-stop haematuria clinic' and has an ultrasound and intravenous urogram performed. An ultrasound scan of the right kidney and a 15 minute film from an intravenous urogram (IVU) are shown.



Figure 14a



Figure 14b

- A *What does the ultrasound scan show?*
 B *Is this confirmed by the IVU?*

Answer

A

In this case the ultrasound scan (Fig 14a) has revealed a mass lesion at the lower pole of the right kidney. The urogram (Fig 14b) shows expansion of the lower pole of the right kidney with distortion and distension of the upper pole calyces and collecting system. The mass was biopsied under ultrasound guidance and histological examination showed it to be a **renal cell carcinoma**.

Further assessment of the patient with a renal cell carcinoma will include a CT scan of the abdomen to assess invasion of adjacent structures and spread of tumour into the renal vein and inferior vena cava and to assess whether regional lymph nodes have become involved. Chest radiograph is also necessary to exclude metastatic spread to the lung.

Haematuria is a symptom that must not be ignored. In the investigation of haematuria ultrasound is used to look at the kidneys and bladder. Dilatation of the renal collecting systems (hydronephrosis) can easily be demonstrated. Ultrasound of the urinary bladder can show bladder wall thickening and the presence of intravesical masses.

B

The intravenous urogram is used to visualise the renal outlines and the collecting systems including the ureters and the bladder. Significant-sized bladder tumours can be present and not seen on urography.

If ultrasound and an IVU fail to show a cause for haematuria, it is essential that the patient is referred for cystoscopic examination. Haematuria from prostatic disease and bladder tumours cannot reliably be excluded by ultrasound or intravenous urography.

An 80-year-old lady presents to casualty having fallen on to her outstretched hand. There is soft tissue swelling and deformity of the wrist with reduced range of movement at the wrist. An AP and lateral radiograph of the wrist is performed.



Figure 5

- A Describe the X-ray abnormalities.
- B What is the diagnosis?

Answer

A

There is impaction and dorsal angulation of the distal radius. There is also a fracture through the ulna styloid.

B

The appearance would be in keeping with a **Colles' fracture**. This fracture can be reduced using regional anaesthesia.

A baby was born at term by Caesarean section for a breech presentation. When the toddler was 3-years-old his parents became concerned that he was still not walking properly.



Figure 1

- A *What does the pelvic X-ray show?*
- B *Could this have been avoided?*

Answer

A

The right acetabulum is shallow and the femoral head does not lie within it. It is at a higher level than it should be. This condition used to be known as congenital dislocation of the hip, but the term **developmental dysplasia of the hip (DDH)** is now preferred.

B

The condition is more common in female infants, those with a positive family history, history of oligohydramnios, breech deliveries, any associated abnormality, eg club foot. These patients should be screened, preferably with ultrasound as well as clinical examination so that affected infants can be splinted. If the diagnosis is delayed, the femoral head may not develop properly, preventing normal gait development. Premature osteoarthritis may also occur.