Common kidney diseases

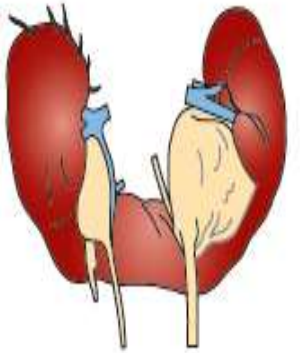
- CONGENITAL ABNORMALITIES OF THE KIDNEY

- Absence of one kidney
- Renal ectopia
- Horseshoe kidney
- Congenital fusions
- Congenital cystic diseases of kidney
- Ureterocele
- Retro caval ureter
- Duplex system

Horseshoe kdney

- Found in one in 1000.

- Pair of ectopic kidneys fused usually at their lower poles and lying in front of the fourth lumbar vertebra.
- Horseshoe kidneys are liable to pelviureteric obstruction,infection and stone
- An unrecognised pelvic kidney may cause diagnostic confusion during surgery



Congenital cystic kidneys

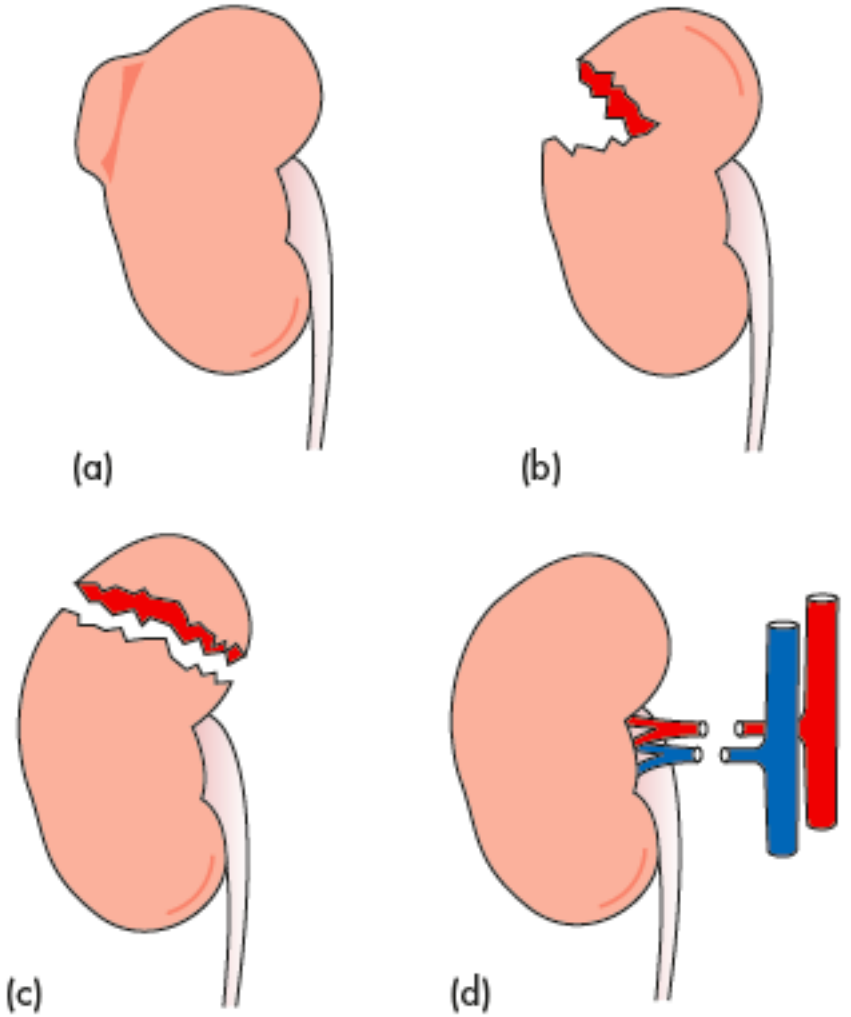
Congenital cystic kidneys (synonym: polycystic kidneys) are

- hereditary,
- potentially lethal and transmitted by either parent as an autosomal dominant trait
- The condition is slightly more common in women than men.
- There are six clinical features:
- 1 an irregular upper quadrant abdominal mass;
- 2 loin pain;
- 3 haematuria;
- 4 infection;
- 5 hypertension;
- 6 uraemia.

INJURIES TO THE KIDNEY

- injuries to the kidney result most often from either blows or falls on the loin or crushing injury to the abdomen, typically in a road traffic accident

- range of injury extends from a small sub-capsular haematoma to a complete tear through the kidney



MANAGEEMNT

- CONSERVATIVE

- Exploration of the kidney may be associated with massive blood loss as the haematoma is opened.

- Check that the contralateral kidney is functioning because
- nephrectomy is a possibility

HYDRONEPHROSIS

- Hydronephrosis is an aseptic dilatation of the kidney caused by obstruction.

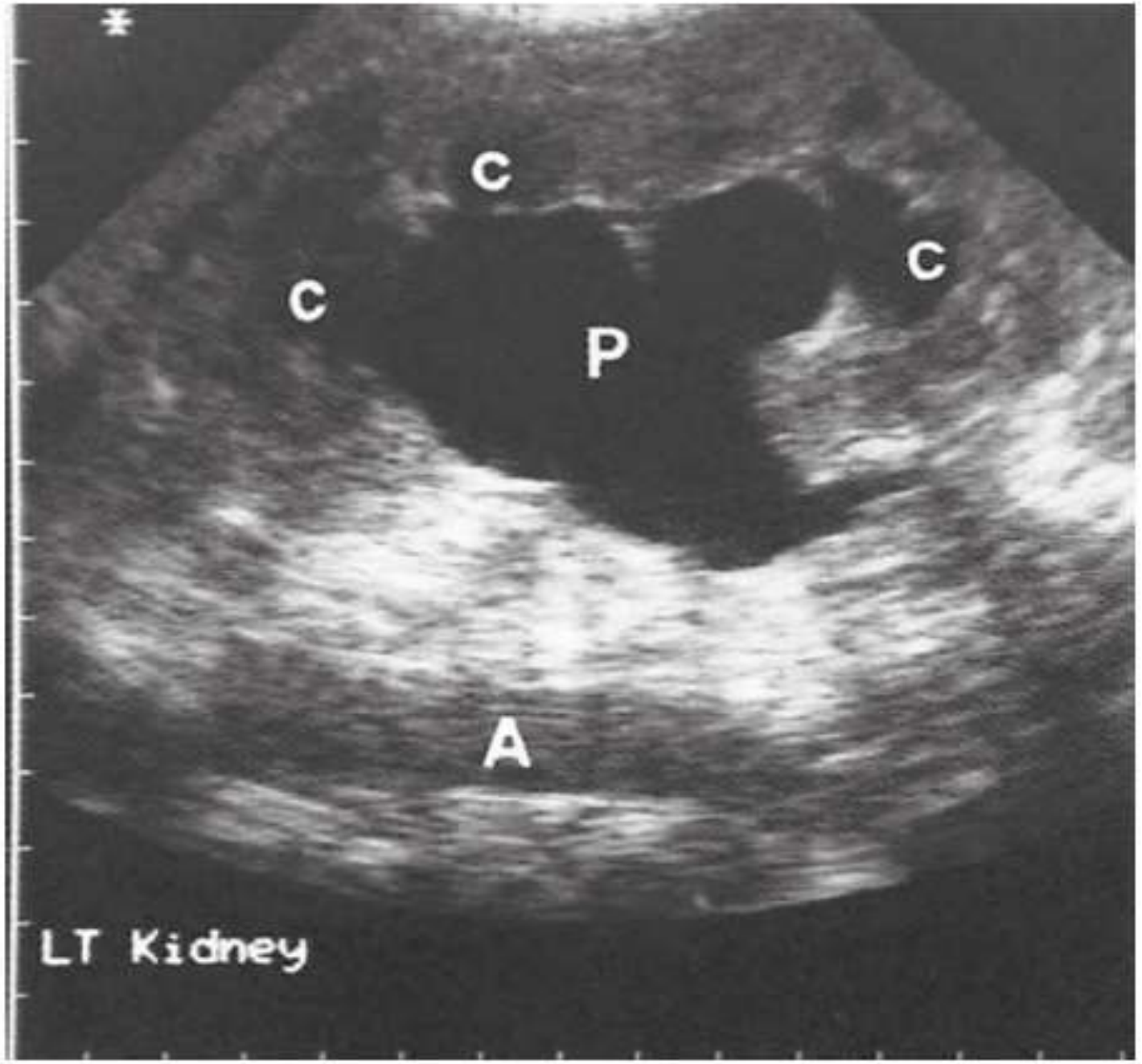
Causes of unilateral ureteric obstruction

Extramural obstruction
- Tumour from adjacent structures, e.g. cervix, prostate, rectum, colon or caecum
- Idiopathic retroperitoneal fibrosis
- Retrocaval ureter

Intramural obstruction
- Congenital stenosis, physiological narrowing of the pelviureteric junction leading to pelviureteric junction obstruction
- Ureterocele and congenital small ureteric orifice
- Inflammatory stricture following removal of ureteric calculus, repair of a damaged ureter or tuberculous infection
- Neoplasm of the ureter or bladder cancer involving the ureteric orifice

Intraluminal obstruction
- Calculus in the pelvis or ureter
- Sloughed papilla in papillary necrosis (especially in diabetics, analgesic abusers and sickle cell disease)

- Bilateral hydronephrosis.
- Unilateral hydronephrosis.

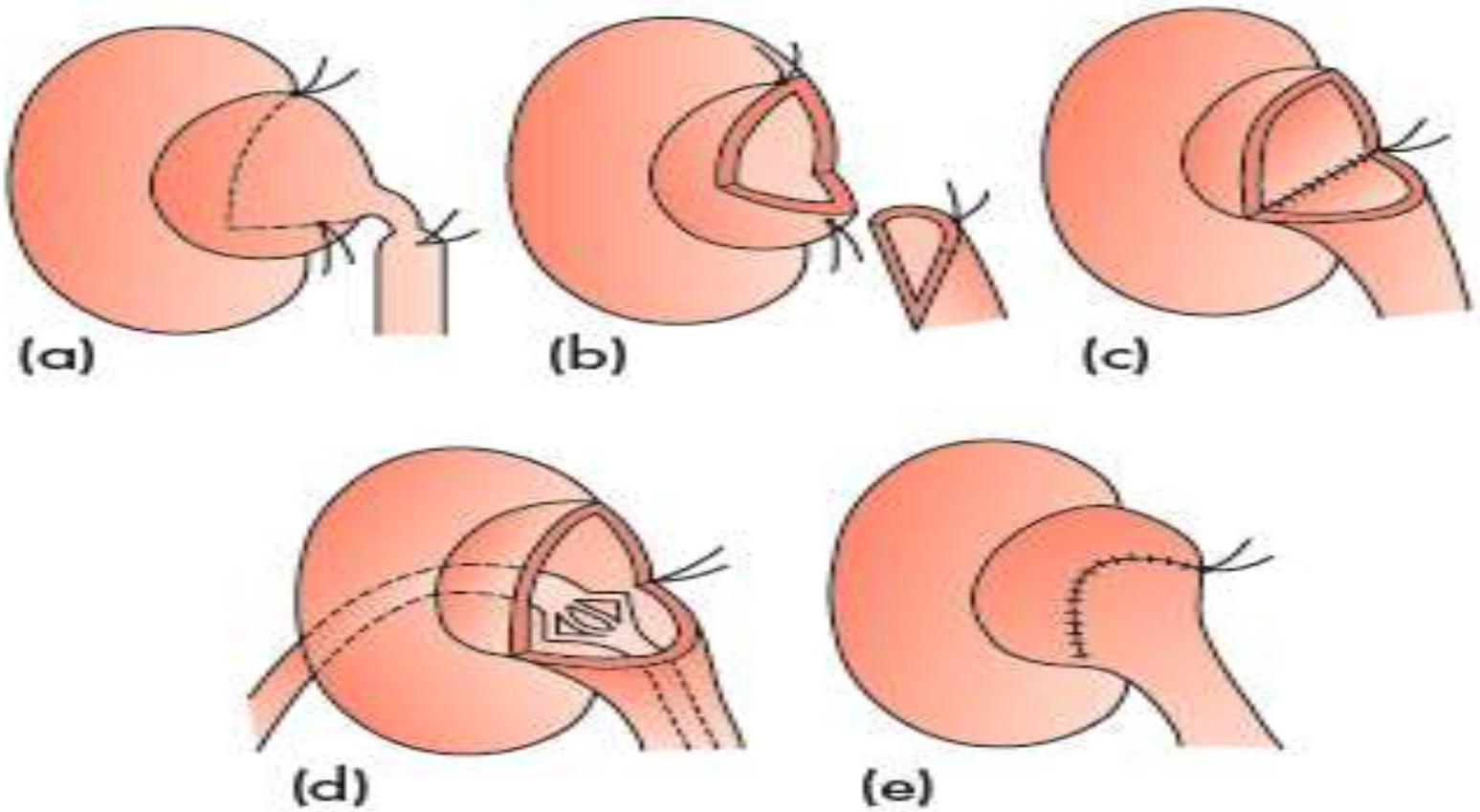


Imaging

- Obstruction of the ureter is diagnosed by a combination of ultrasound scanning and isotope renography

- An obstructed kidney is worth preserving if it is contributing
- more than 20 per cent of total renal function

Treatment : Pyeloplasty



RENAL CALCULI

- Aetiology

- Types of renal calculus
- Oxalate calculus (calcium oxalate)
- Phosphate calculus
- Uric acid and urate calculi
- Cystine calculus

Clinical features

- Approximately 50 per cent of
- patients present between the ages of 30 and 50 years
- May be clinically silent even when large
- Are usually visible on a plain abdominal radiograph
- May be radiolucent when composed of uric acid
- Ureteric colic

Investigation of suspected urinary stone disease

- X-ray
- Contrast-enhanced CT
- Excretion urography
- Excretion urography
- USG

TREATMENT

- Percutaneous nephrolithotomy
- Extracorporeal shock wave lithotripsy
- Open surgery for renal calculi

KIDNEY INFECTIONS

Kidney infection

- Acute pyelonephritis:
  - In childhood
  - In pregnacy
  - With urinary obstruction
- Chronic pyelonephritis:
  - Reflux nephropathy
- Pyonephrosis
- Renal abscess
- Perinephric abscess