

See also *Abdominal Aortic Aneurysms, Aortic Dissection, SAH articles.*

### Aneurysms

- True aneurysms:
  - 50% increase in the normal diameter of the vessel.
  - Symmetrically wall ballooning (fusiform) or local 'blow-out' (saccular) aneurysm.
  - Sites: iliac artery, popliteal artery, femoral artery, splenic, hepatic.
- False aneurysms:
  - Collection of blood, held around the vessel by a wall of connective tissue.
  - May occur following trauma or following angiogram, angioplasty or graft site.
  - False aneurysms present as pulsatile mass & may eventually rupture / →thrombosis

### Aetiology

- Atherosclerosis / degeneration
- Vasculitis (e.g. Kawasaki's disease)
- Infective incl syphilis
- Penetrative or blunt trauma
- Congenital (e.g. Berry aneurysm)
- Cocaine use

### Sites of Aneurysms

- Thoracic aortic aneurysms (<10% of aortic aneurysms):
  - Most asymptomatic but may → chest, back/neck pain; dyspnoea, stridor or cough
- Popliteal aneurysms:
  - 80% of all peripheral aneurysms. Assoc with aortic aneurysms & often bilateral.
  - Symptoms from thrombosis, embolisation or compression of adjacent structures.
- Femoral aneurysms:
  - Second commonest peripheral aneurysm.
  - Pulsatile groin mass can, or thrombosis, embolisation or compression symptoms.
- Hepatic artery aneurysms:
  - Commonest visceral aneurysm, assoc: atherosclerosis, trauma, infection (IVDU).
- Splenic artery aneurysms:
  - Less than 40% of all visceral aneurysms. 4F:1M.
  - Rupture in 25%. Common in 3<sup>rd</sup> trimester of pregnancy with high mortality.
- Renal artery aneurysms:
  - May be found in 1% of adults & are usually asymptomatic.

### Dissections

- Carotid dissection:
  - Most cases idiopathic, occ with neck trauma or manipulation.
  - Many occur extracranially in ICA and with vertebral artery dissection → CVA
  - Clin: headache, ipsilat neck/ facial pain. Transient blindness, syncope, swelling neck and pulsating tinnitus. Neuro deficits, Horner's (50%), hemiparesis, carotid bruit.

### Investigations

- Peripheral/visceral: CT Angio, MRI, USS. LV aneurysm: echo, angi, scintigraphy.
- If ?vasculitis and connective tissue disorders: ESR, CRP and autoantibody profile

### Management

- ABCs, O<sub>2</sub>, d/w surgeons operative intervention.
- Prevention: Primary and secondary prevention of cardiovascular disease.