Stroke

Types

- **Ischaemic stroke** (risk factors = age, AF, diabetes, hypertension, obesity, hypercholesterolemia, smoking, obesity, family history)
  - Total anterior circulation stoke (TACS)   3/3   -**H**igher function (speech/apraxia/neglect)
  - Partial anterior circulation stroke (PACS)   2/3   of   -**H**emianopia
  - Lacunar stroke (LACS)   1/3   -**H**emi-loss (motor/sensory)
  - Posterior circulation stroke (POCS) – vertebrobasilar arterial system occlusions
    - Occipital → isolated homonymous visual field defect
    - Cerebellar → ipsilateral cerebellar signs
    - Brainstem → ipsilateral cranial nerve palsies, bilateral sensory/motor deficit, disorder of eye movements
- **Intracerebral haemorrhage** (risk factors = age, anticoagulation, alcohol, hypertension, stress, smoking)

Possible clinical features by vascular territory

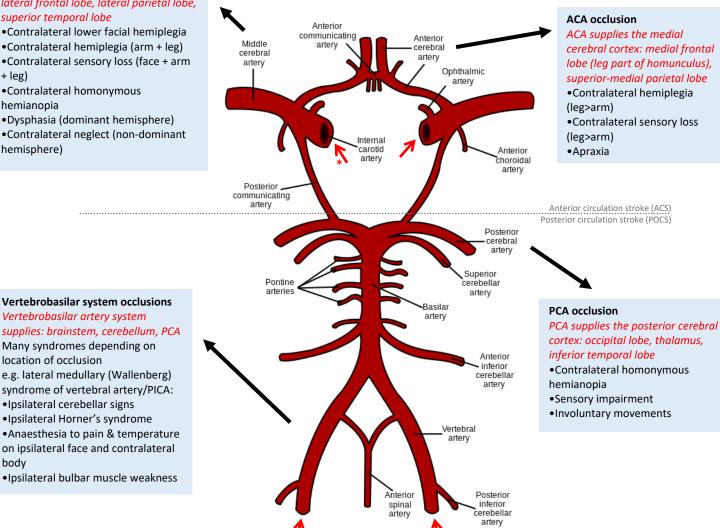**MCA/branch occlusion (most common)**
MCA supplies the lateral cerebral cortex: lateral frontal lobe, lateral parietal lobe, superior temporal lobe
- Contralateral lower facial hemiplegia
- Contralateral hemiplegia (arm + leg)
- Contralateral sensory loss (face + arm + leg)
- Contralateral homonymous hemianopia
- Dysphasia (dominant hemisphere)
- Contralateral neglect (non-dominant hemisphere)

ACA occlusion
ACA supplies the medial cerebral cortex: medial frontal lobe (leg part of homunculus), superior-medial parietal lobe
- Contralateral hemiplegia (leg>arm)
- Contralateral sensory loss (leg>arm)
- Apraxia

Vertebrobasilar system occlusions
Vertebrobasilar artery system supplies: brainstem, cerebellum, PCA
Many syndromes depending on location of occlusion
e.g. lateral medullary (Wallenberg) syndrome of vertebral artery/PICA:
- Ipsilateral cerebellar signs
- Ipsilateral Horner's syndrome
- Anaesthesia to pain & temperature on ipsilateral face and contralateral body
- Ipsilateral bulbar muscle weakness

PCA occlusion
PCA supplies the posterior cerebral cortex: occipital lobe, thalamus, inferior temporal lobe
- Contralateral homonymous hemianopia
- Sensory impairment
- Involuntary movements

Anterior circulation stroke (ACS)
Posterior circulation stroke (POCS)

*Remember: carotid artery dissection is a cause of anterior circulation stroke and vertebral artery dissection is a cause of posterior circulation stroke (think about dissection if there is neck pain, the patient is young or there is associated trauma)

Investigations and Management

- See acute management of stroke page