

Intracranial Aneurysm

Presentation:

- 90% present with intracranial haemorrhage
- 7% present with space-occupying symptoms

SPECIFIC SYNDROMES

Anterior communicating artery:

= the most common site of aneurysmal subarchnoid haemorrhage

- **altitudinal visual field deficits,**
- **abulia** (Loss or impairment of the ability to act or to make decisions.)
- **akinetic mutism**
- **amnesic syndromes**
- **hypothalamic hypopituitarism**

Anterior cerebral artery:

- **frontal lobe syndromes**
- **anosmia,**
- **motor deficits**

Middle cerebral artery:

- **Aphasia**
- **Hemiparesis**
- **hemisensory loss**
- **anosognosia** (a condition in which an ill patient is unaware of her own illness or the deficits resulting from her illness)
- **visual field defects**

Posterior communicating artery:

- **Pupillary dilatation,**
- **ophthalmoplegia,**
- **ptosis**
- **mydriasis** (pupil dilation)
- **hemiparesis**

Internal carotid artery:

- **ophthalmoplegia** due to compression of CN III
- **variable visual defects**
- **optic atrophy** due to compression of the optic nerve
- **bilateral temporal hemianopia** (chiasm pressure)
- **Hypopituitarism**
- **anosmia** may be seen with giant aneurysms.

Cavernous-carotid aneurysms exert mass effects within the cavernous sinus, producing

- **ophthalmoplegia**
- **facial sensory loss**
- **epistaxis** if ruptured.

Basilar artery:

- **bitemporal hemianopsia**
- **oculomotor palsy**
- **bulbar dysfunction**
- **respiratory difficulties**
- **neurogenic pulmonary edema.**

Vertebral artery or PICA:

- **Ataxia**
- **bulbar dysfunction**
- **spinal involvement**

False localizing signs:

- **CN III palsy and hemiparesis** in uncus herniation,
- **CN VI palsy** with elevated intracranial pressure,
- **homonymous hemianopia** due to posterior cerebral artery compression along the tentorial edge,
- **brainstem dysfunction** associated with tonsillar herniation

- common, affecting approximately 5% of the population
- are multiple in 20-30% of patients
- mostly remain asymptomatic throughout life
- symptomatic aneurysms are >1 cm
- often occur at vessel bifurcations
- cause 80% of subarachnoid haemorrhages

3rd nerve palsy:

- **weakness or paralysis of the**
 - **superior rectus**
 - **inferior rectus**
 - **medial rectus**
 - **inferior oblique**
 - **levator palpebrae muscles,**
- **impaired parasympathetic innervation to the pupil.**
With a complete oculomotor palsy, the eyelid will be paralyzed, the eye will be in an abducted and inferior position, and the pupil will be markedly dilated