Torrential otorrhagia

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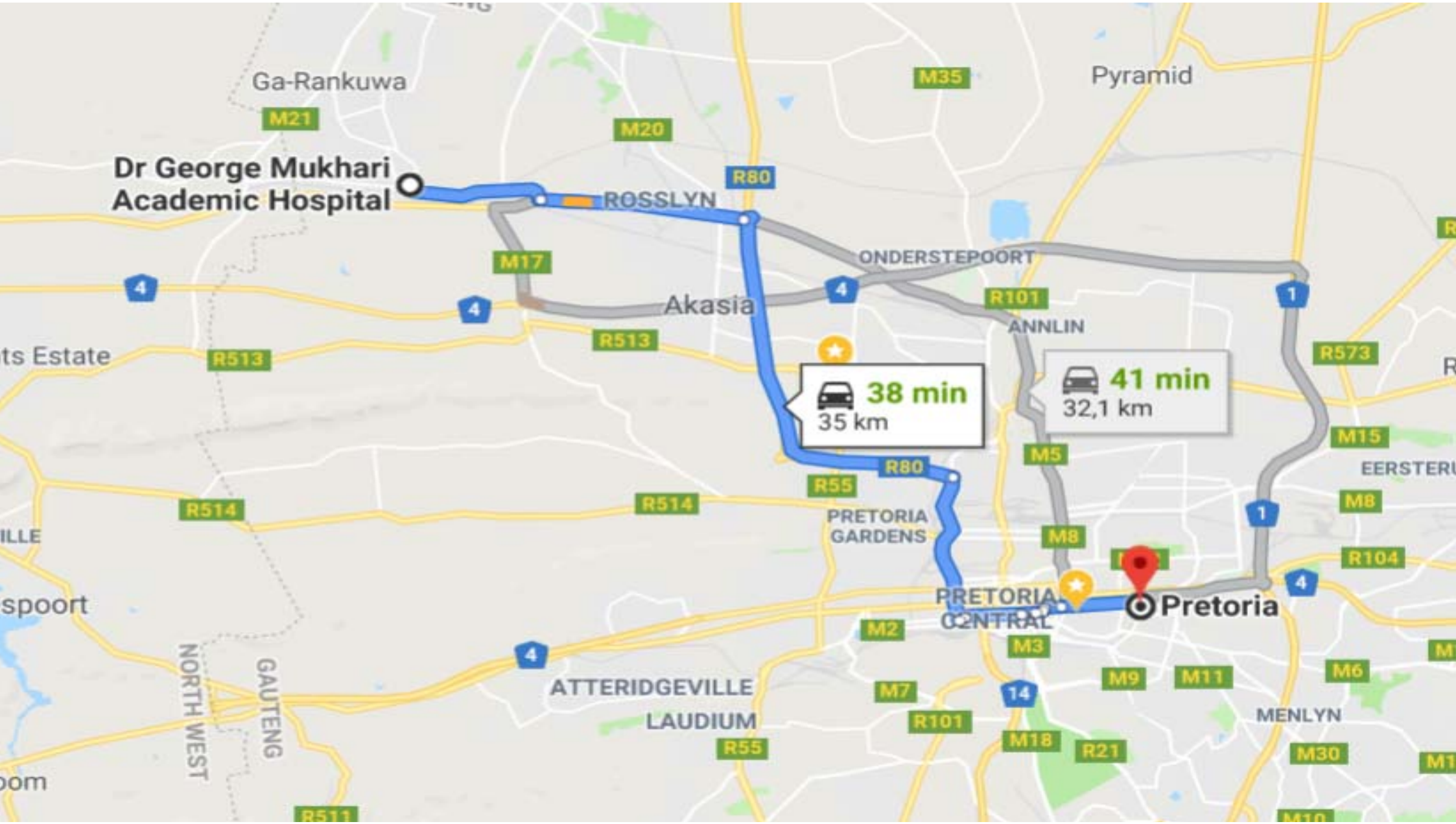
Ga-Rankuwa

SEFAKO MAKGATHO
HEALTH SCIENCES UNIVERSITY

GAUTENG
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA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History

- 46 yrs old male patient with torrential bleed from left ear.
- Main complaint:
  - Torrential bleeding from the left ear 3/12
  - Pulsatile tinnitus on left ear
  - Hearing loss
  - Otalgia
  - Severe headache
  - No vertigo
  - Odynophagia
  - No nasal symptoms
  - Vision intact
  - No facial nerve palsy

Medical and social history

- RVD on HAART
- Hypertensive on treatment
- Not diabetic
- No bleeding tendencies
- Had MVA in 2015 sustained leg fracture and head injury
- Social history: smoker and drinker

Clinical examination

- Clinically wasted
- Hemodynamically unstable
- Ear:
  - left ear bleeding which was then packed with BIPP and the bleeding stopped.
  - Right ear normal
- Nose: No epistaxis
- Throat: swelling of the left peritonsilar area. Tonsil pushed to the midline. Oral candida
- No neurological deficit
- No cranial nerve fallout

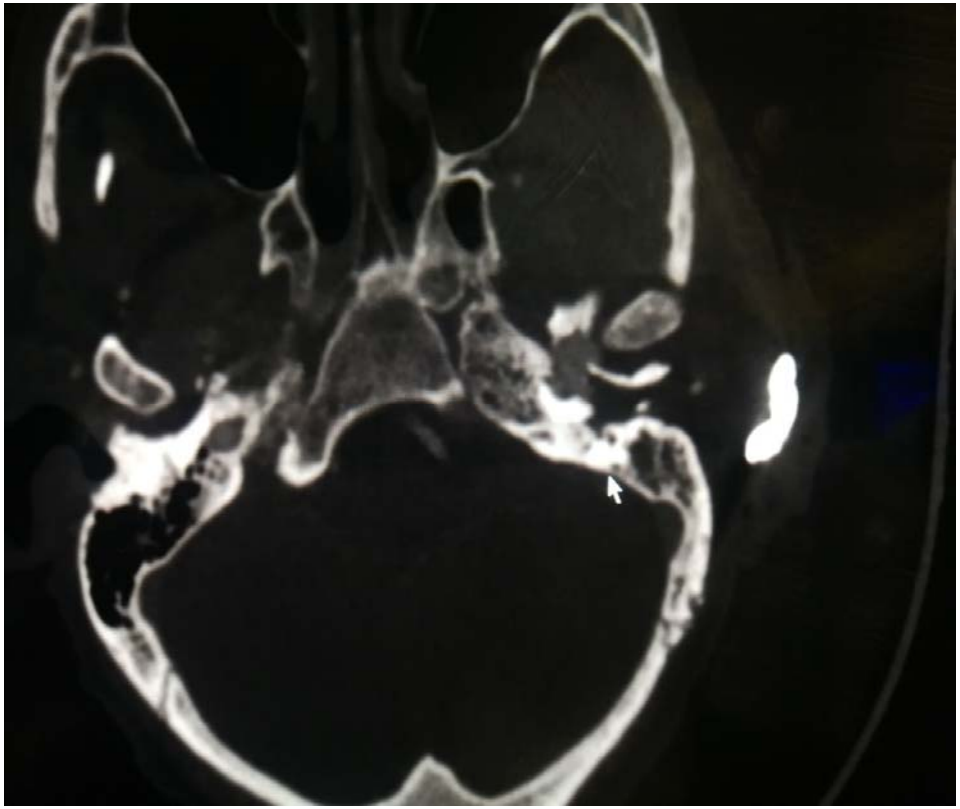
Differential diagnosis

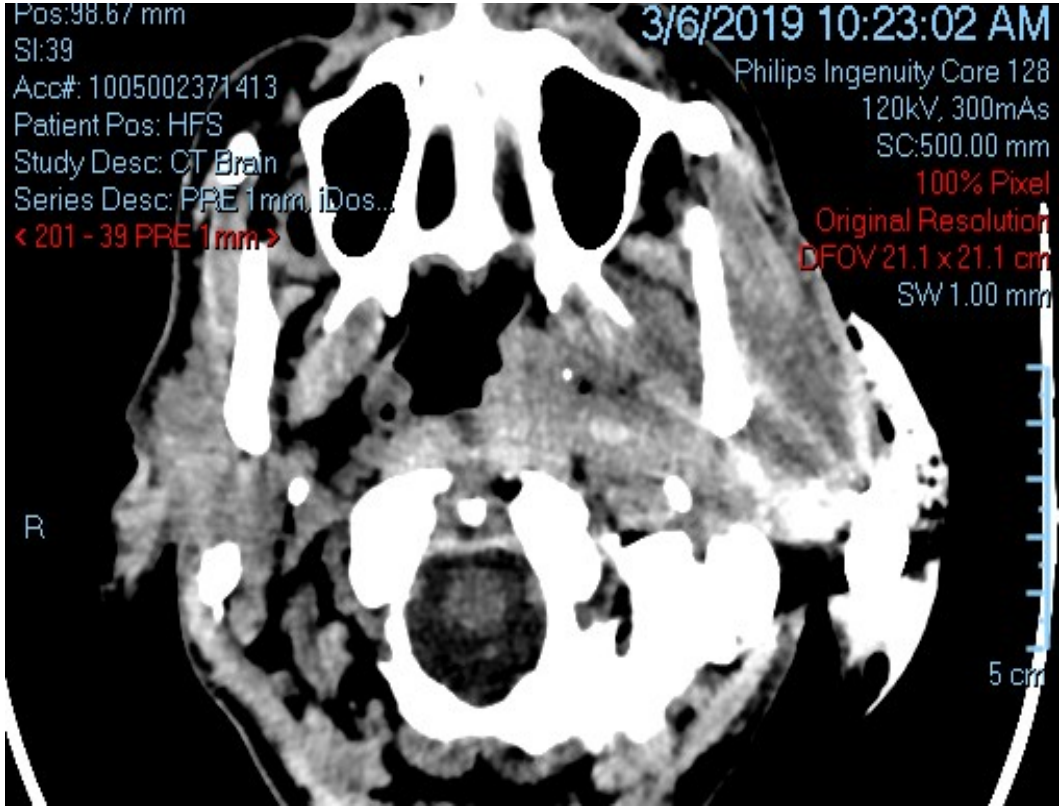
- Glomus Tumour
- Carotid artery aneurysm
- High riding jugular bulb
- Persistent stapedial artery
- Squamous cell carcinoma
- Cholesteatoma

Investigation

- FBC- Hb=6.9/Plt=273/WBC=4.4
- Urea and Creatinine- normal
- CD4=88
- Chest X-ray
- CT angiogram of head and neck
- CT scan temporal bone and brain
- MRA

CT angiogram findings



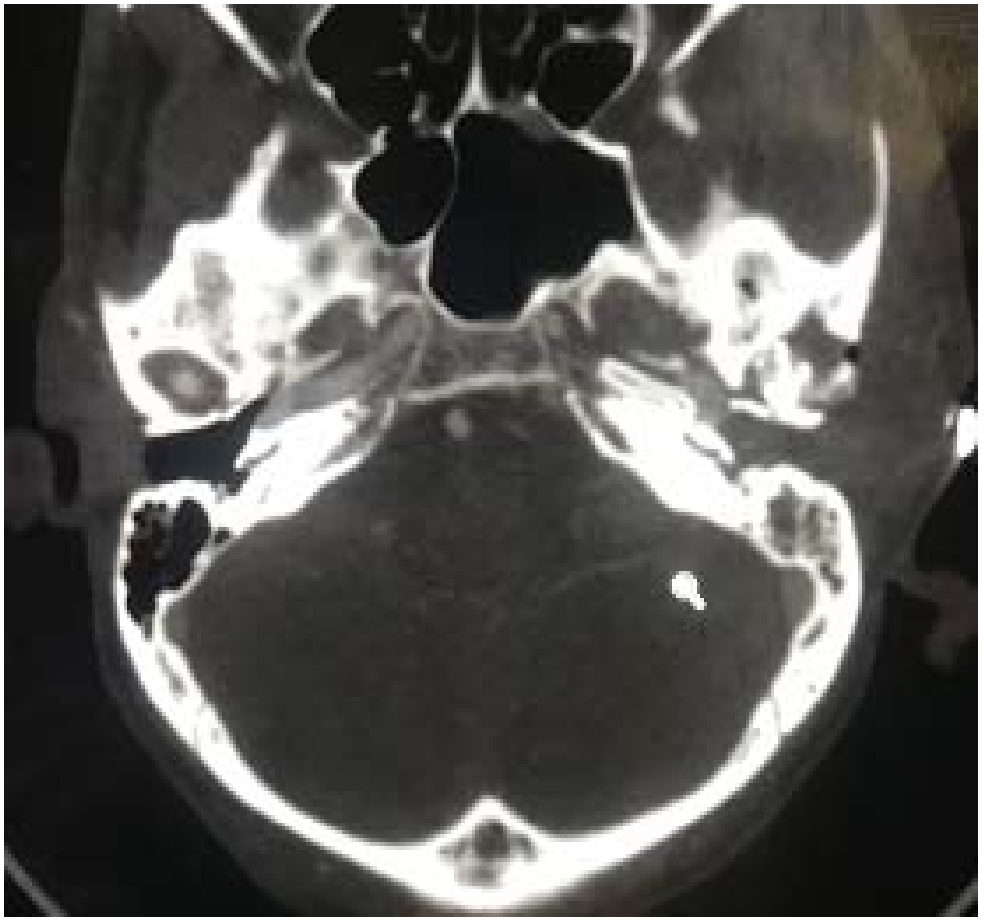


Final diagnosis

- Aneurysms of the left petrous portion of the ICA.
- Parapharyngeal hematoma.
- Parietal and frontal meningioma.
- Thyroid cyst

Management
Aneurysm with the coil inside

Aneurysm post stenting

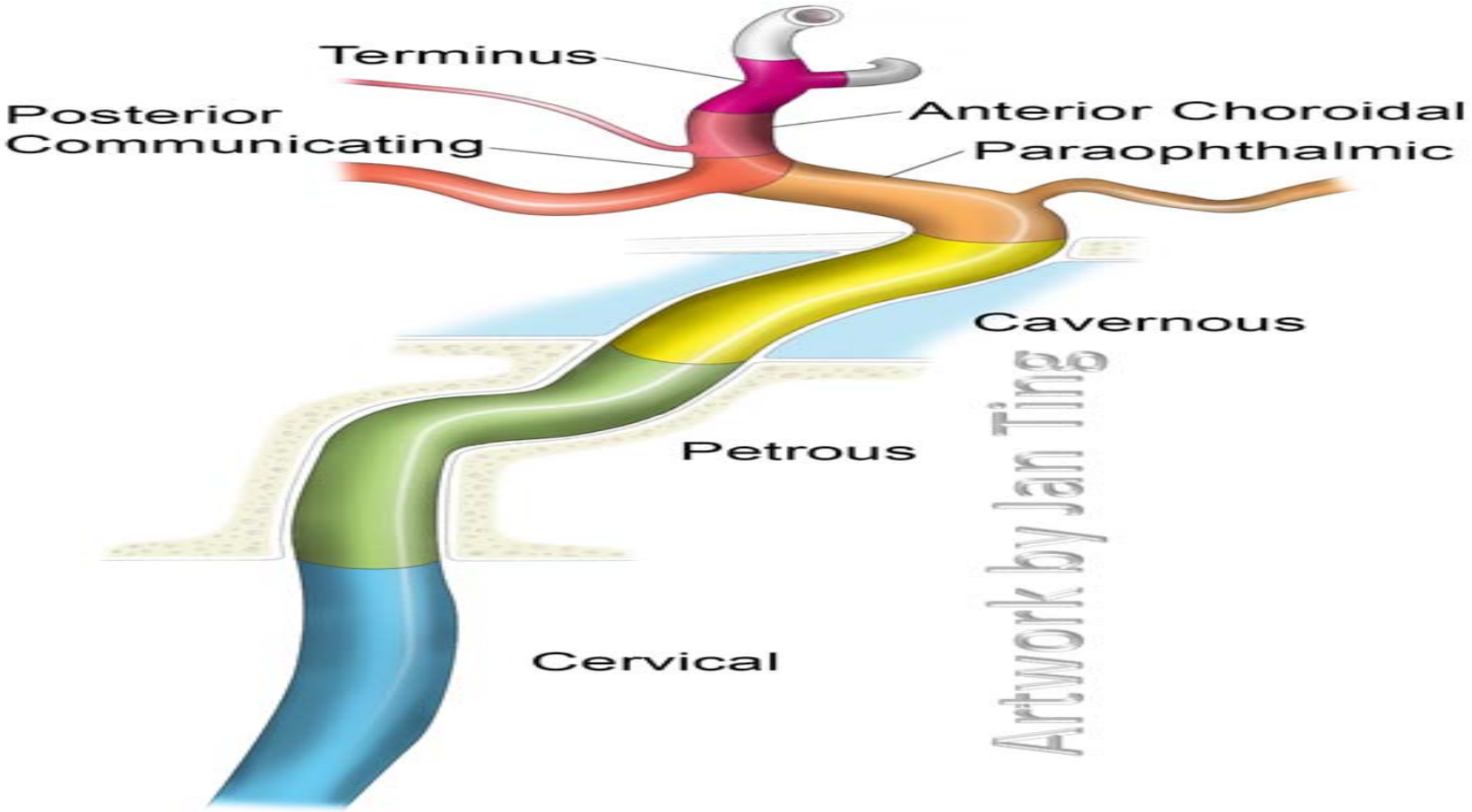


Aneurysms of the Petrous Portion of the ICA

- An Aneurysm is defined as a localized dilation at least 50 % larger than an adjacent normal portion of the same artery.
- Aneurysms involving the petrous segment of the ICA are rare.
- Account less than 1%
- Common males aged 35 to 41 years
- Bleeding can so massive to cause hemodynamic shock and progressive neurological deterioration
- Death from bleeding is common

Aetiology

- The cause of aneurysms is unknown.
- Risk factors:
  - Elevated BP
  - Traumatic
  - Iatrogenic
  - Infectious
  - Genetic
  - Degenerative diseases
  - Neoplastic


Terminus
Posterior
Communicating
Anterior Choroidal
Paraophthalmic
Cavernous
Petrous
Cervical
Artwork by Jan Ting

Clinical presentation

- Otorrhagia
- Pulsatile tinnitus
- Epistaxis
- Sudden sensory neural hearing loss
- Depending on the direction of expansion:
  - 8th cranial nerve dysfunction in 43% of patients
  - 6th nerve palsy (23%)
  - 7th nerve paresis (20%)
  - 5th nerve dysfunction(17%)
  - lower cranial nerve involvement (3%)
- Longstanding unilateral headaches
- Horner syndrome
- Several death have been reported due to biopsy

Investigation

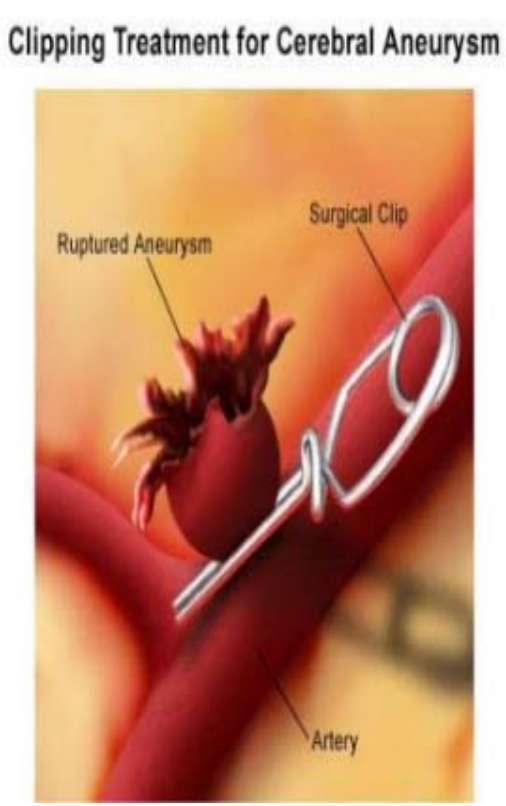
- Blood: FBC/Urea and Creatinine/INR/HIV
- CT angiogram with 3D reconstruction
- CT scan can show the size and shape of an aneurysm.
- MRI detect aneurysms and pinpointing their size and exact location.
- Angiography: This test shows the amount of damage and blockage in blood vessels.

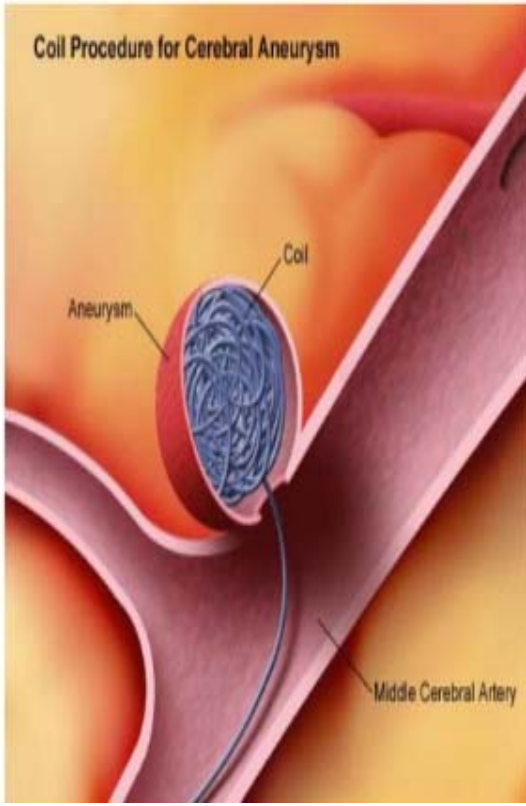
Management

- Medical:
  - Analgesics - for headaches.
  - Calcium channel blockers - these stop calcium for entering cells of the blood vessel walls.
  - A vassopressor - widens blood vessels which have remained.
  - Anti-seizure drugs - seizures may occur after an aneurysm has ruptures.
  - A ventricular catheter - hydrocephalus
  - Rehabilitation therapy - speech and bodily movements. Rehabilitation therapy helps the patient relearn vital skills.

Surgical management

- Surgical clipping
- Endovascular Repair
- Preventing infection
- Patient education





Conclusion

- Endovascular intervention has reported success rates of 92.8%
  - Stroke and cranial(1.8%)
  - Nerve injury(0.5%)
- Endovascular or conventional surgery is warranted in symptomatic patients
- Newer devices are being innovated.

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