Torrential otorrhagia

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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
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 from 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 ruptured.
  • 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.
References:


• Teitelbaum, G. P. (n.d.). The Endovascular Treatment of Cerebral Aneurysms Types of Stroke and Their Causes.