

Traumatic rupture of ear drum (etiology)

- By foreign body or unskilled instrumentation or syringing
- Sudden air compression, as in boxing, hand-slap, blast or rapid descent in non-pressurised aircraft
- Sudden fluid compression, by a blow on ear when the canal is filled with fluid.
- Inflation of eustachian tube.
- Fracture base of the skull

Clinical features

- Pain
- Deafness
- Tinnitus and vertigo
- Perforation is usually irregular with red margins
- Blood usually present in the meatus

Treatment

- Prevent infection
- Leave blood in place
- Never syringe
- Myringoplasty at a later date

Fracture of temporal bone (Longitudinal)

- Longitudinal fracture (80 %)
- Fracture line is in long axis of petrous temporal bone and involves the tympanic cavity, tympanic membrane and external auditory meatus

Clinical features

- Conductive deafness , usually recovers
- Bleeding from the ear
- Fracture line may be visible in EAM
- Facial nerve paralysis may occur
- CSF leak rarely

Fracture of temporal bone (transverse)

- Less common
- Fractures runs through the petrous temporal bone at right angle to its long axis and involves th labyrinth and IAM

Fracture of temporal bone clinical features

- Sensorineural deafness, usually permanent
- Vertigo
- Hemotympanum
- Facial nerve paralysis (uncommon)

Treatment

- Treat as fracture base of the skull

Barotraumatic otitis media (otitic barotrauma)

- A non-infective inflammatory reaction produced in the lining of the middle ear cleft when air pressure within it is considerably below that of surrounding atmosphere.

Barotraumatic otitis media (aetiology)

- Tubal locking (occurs when there is difference of 80mmHg pressure)
- Rapid descent in nonpressurised air creft
- Divers rapid descent
- In a pressure chamber

Barotraumatic otitis media

- Retraction of TM
- Vascular engorgement in the lining of the middle ear cleft
- Oedema ,echymosis and transudation of serum
- TM may rupture
- Secondary infection is uncommon

Barotraumatic otitis media (clinical features)

- Discomfort and pain
- Deafness and autophony
- Tinnitus
- Vertigo
- Reddening over the malleus handle
- Redness of the whole TM
- Bubbles and air fluid levels in middle ear
- Hemotympanum and rarely rupture of TM

Treatment

- Supportive
- Myringotomy