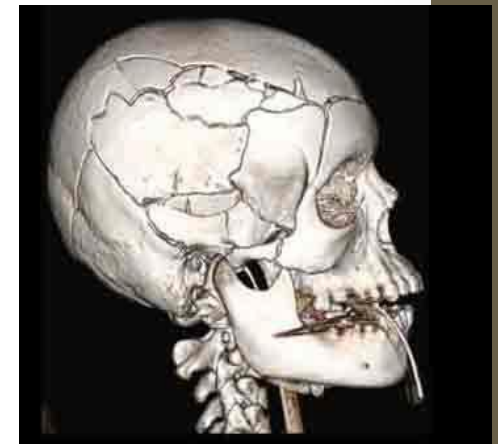


Temporal bone fracture



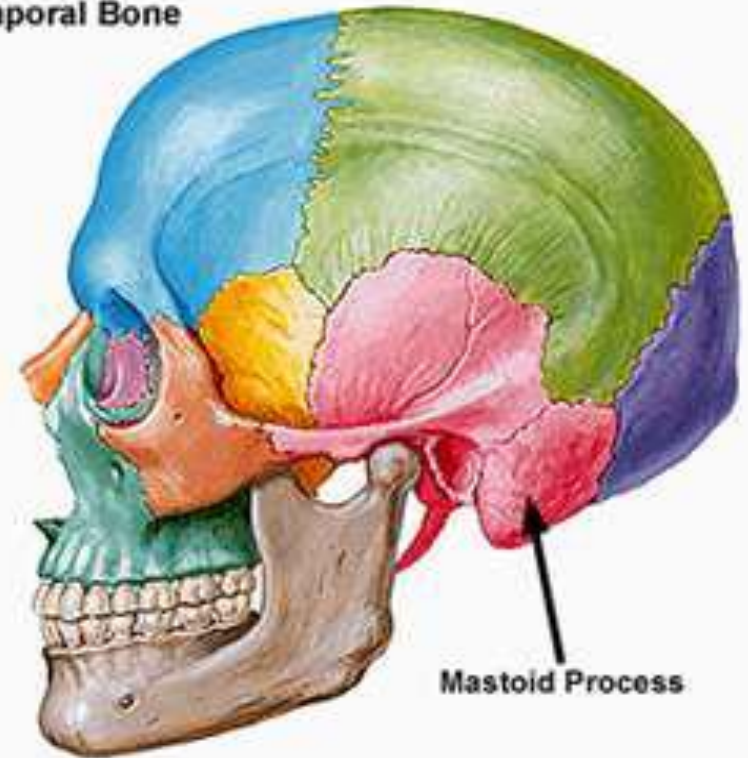
Dr.keivan kiakojori(MD)

professor_Department of ENT

Babol university of medical science

Anatomy

Temporal Bone



Mastoid Process

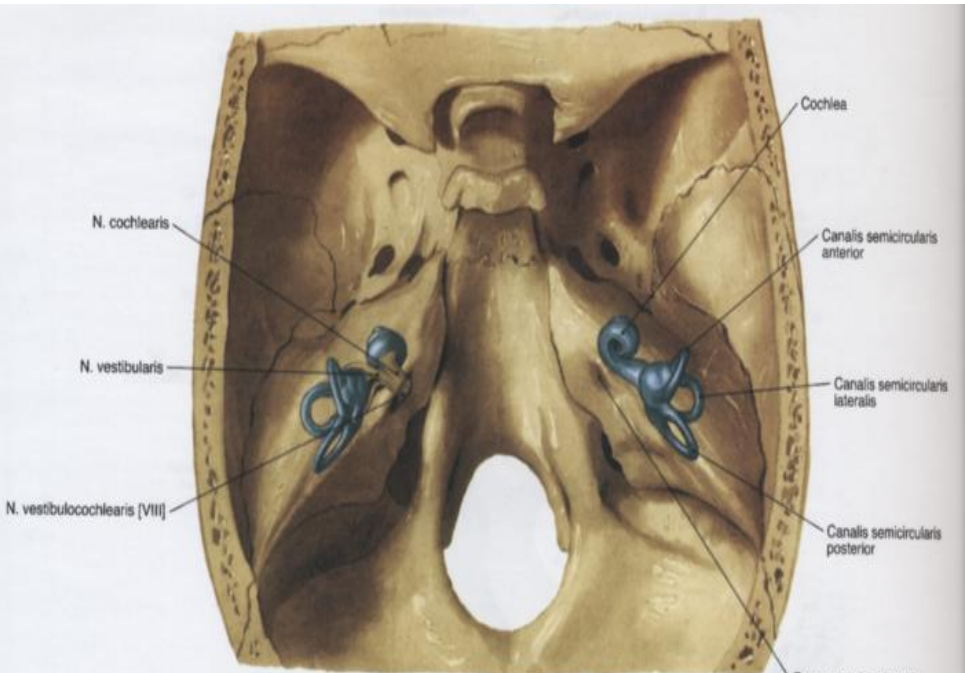
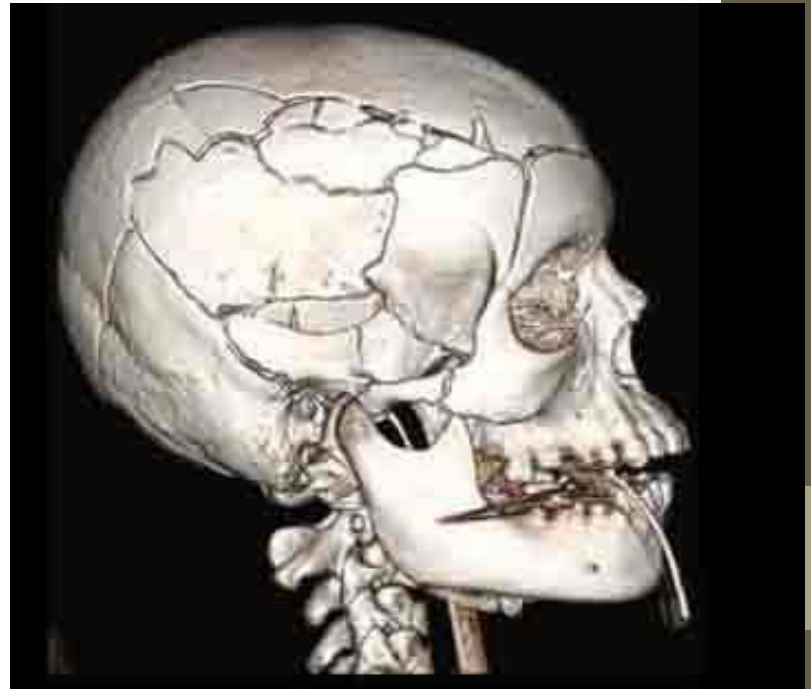


Fig. 705 Inner ear, Auris interna, and vestibulocochlear nerve.

Epidemiology

- M>f 3/1
- 70% 2 ,3,4 decades of life
- 14 – 22 % of skull fractures
- Children 8- 22%



Diagnostic sign



Classification

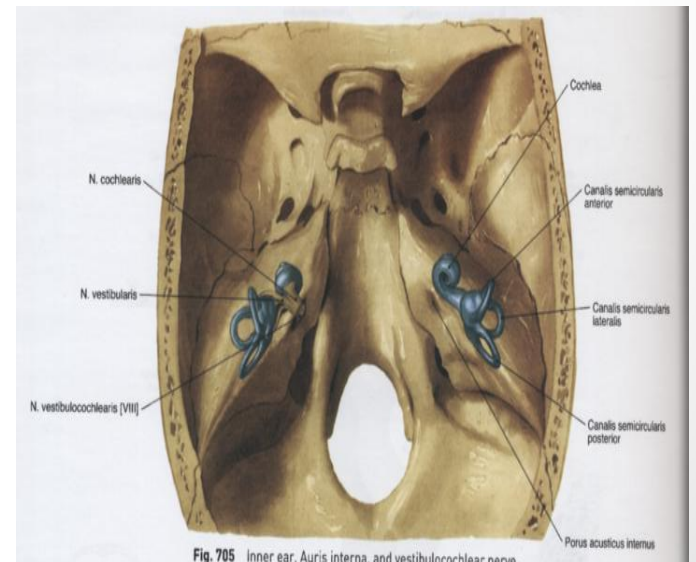
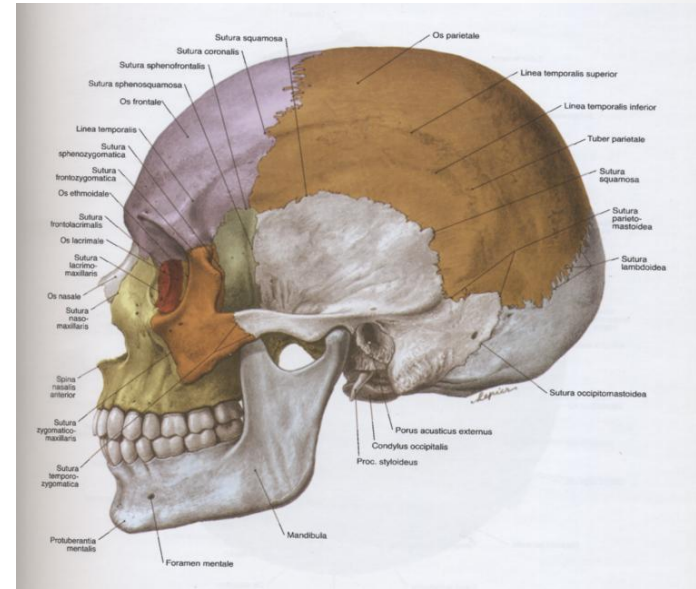
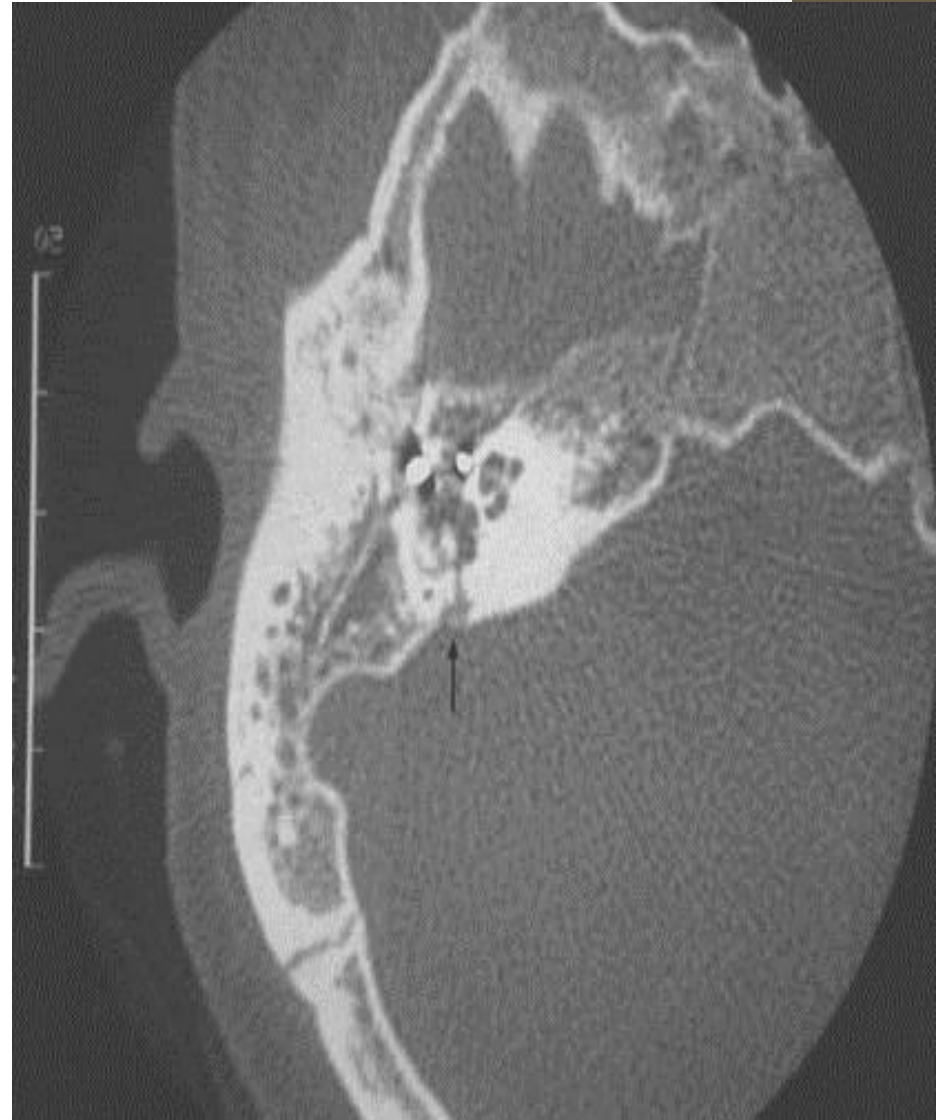
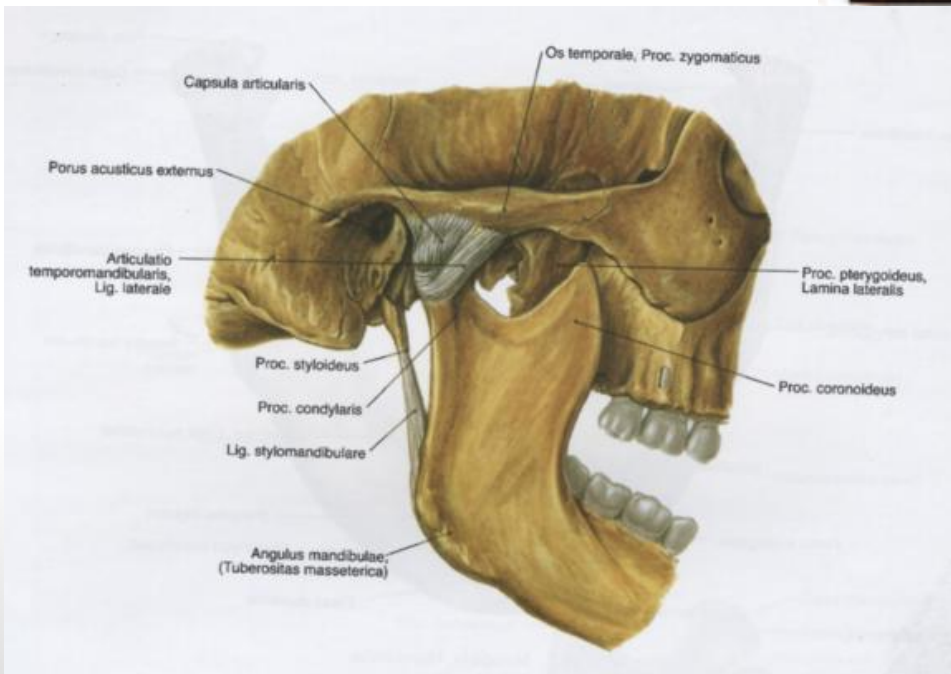


Fig. 705 Inner ear, Auris interna, and vestibulocochlear nerve.

C.T





Facial nerve paralysis

- Severally disfiguring complication
- 27% present immediate onset
- Factors of recovery : timing of onset

- 36 case (immediate) → 75% recovery
- 34 case (delayed) → 94% recovery

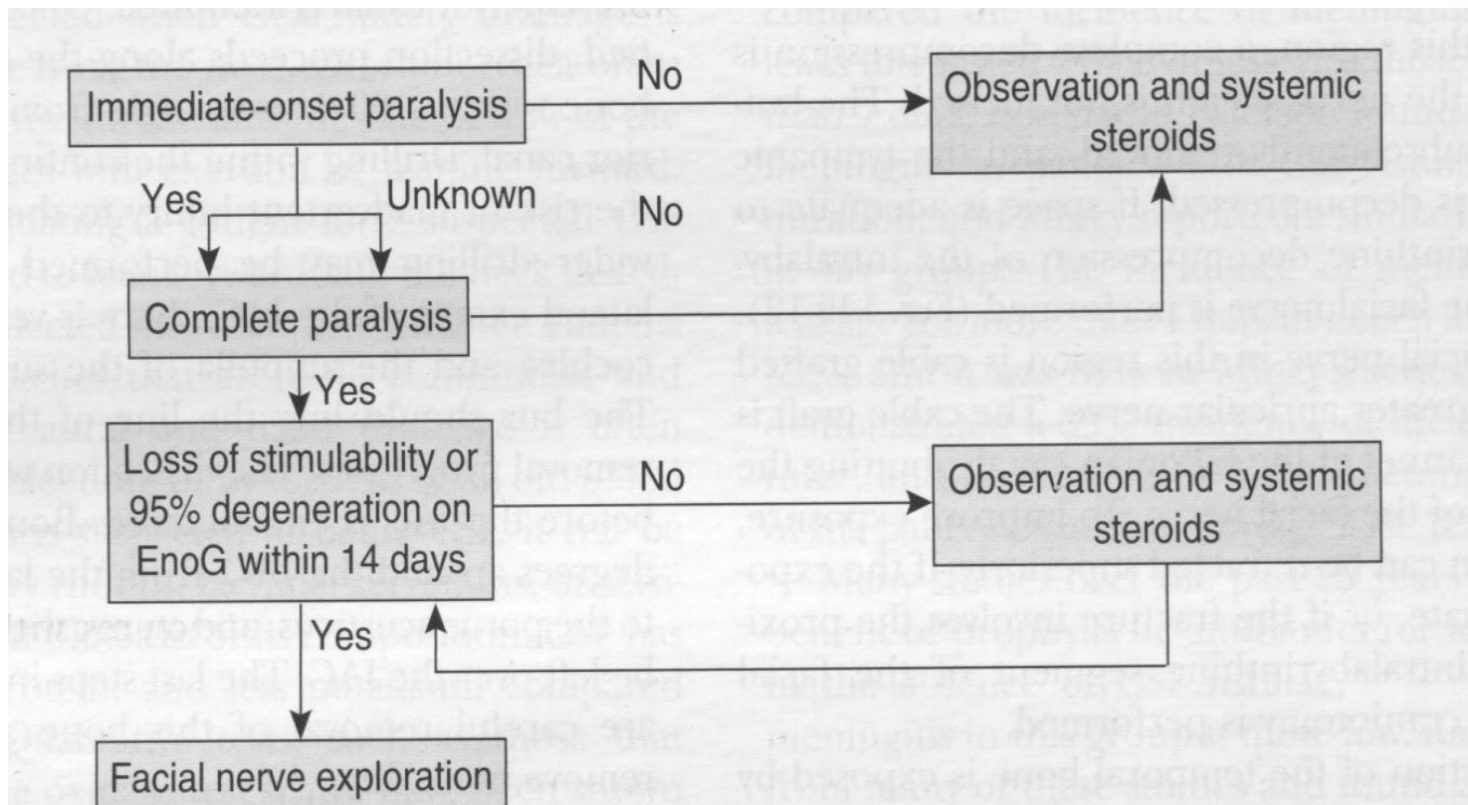


When facial Nerve function exam ?



Facial Nerve Paralysis

- **Delayed onset** : 2 weeks systemic corticosteroid
- **Immediate onset** :



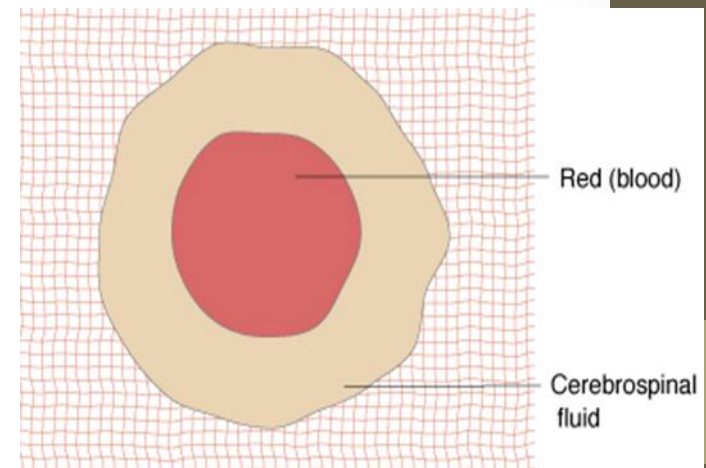
C.S.F Fistula

- The most serious complication (17%)
- Usually close spontaneously (one week)
- Increase risk of meningitis if leak >7 days.



CSF Diagnostics

- 17%
 - clear , watery
 - Halo sign
 - **Delayed** : - herniation dura or brain
 - Hematom
 - B2 transferrin
 - **H.R.C.T** : - 70% bony defect
 - if not detect H.R.C.T
- cisternography
- **Intrathecal florocein** : specific
- lumber puncture 0/5 cc + 10cc csf
- otorrhea exam under wood,s lamp => green



CSF leak treatment

Conservative Treatment:

- elevation of the head
- Total bed rest
- stool softeners
- avoid sneezing, straining, and nose blowing
- Repeat lumbar punctures or indwelling
- lumbar drains if the leak persists

Surgery : persist 7 to 10 days .

Surgery

- **Fracture of otic capsule**

- profound S.N.H.L.
- TM + EAR canal + incus + malleus and middle ear mucos excised
- external auditory canal closed in two layer .
- complete mastoidectomy
- Eustachian tube muscle plug with incus insert .
- fracture covered with fascia
- mastoid cavity obliterated with fat

Hearing evaluation

- Most common incudo stapedial joint 82% .
- Incus dislocation 57%
- Fracture of stapes crura 30%

Exploration

More than 30db gap 2 month after injury



EXTERNAL EAR TRAUMA

- **Auricular hematoma:**

- Blunt trauma
- Trauma disruption of a perichondrial blood vessel
- If the lesion is not treated early, the blood organizes into fibrous mass, causing necrosis of cartilage.

- **Treatment :**

- Most effective treatment is adequate incision
- Application of pressure with dental rolls.

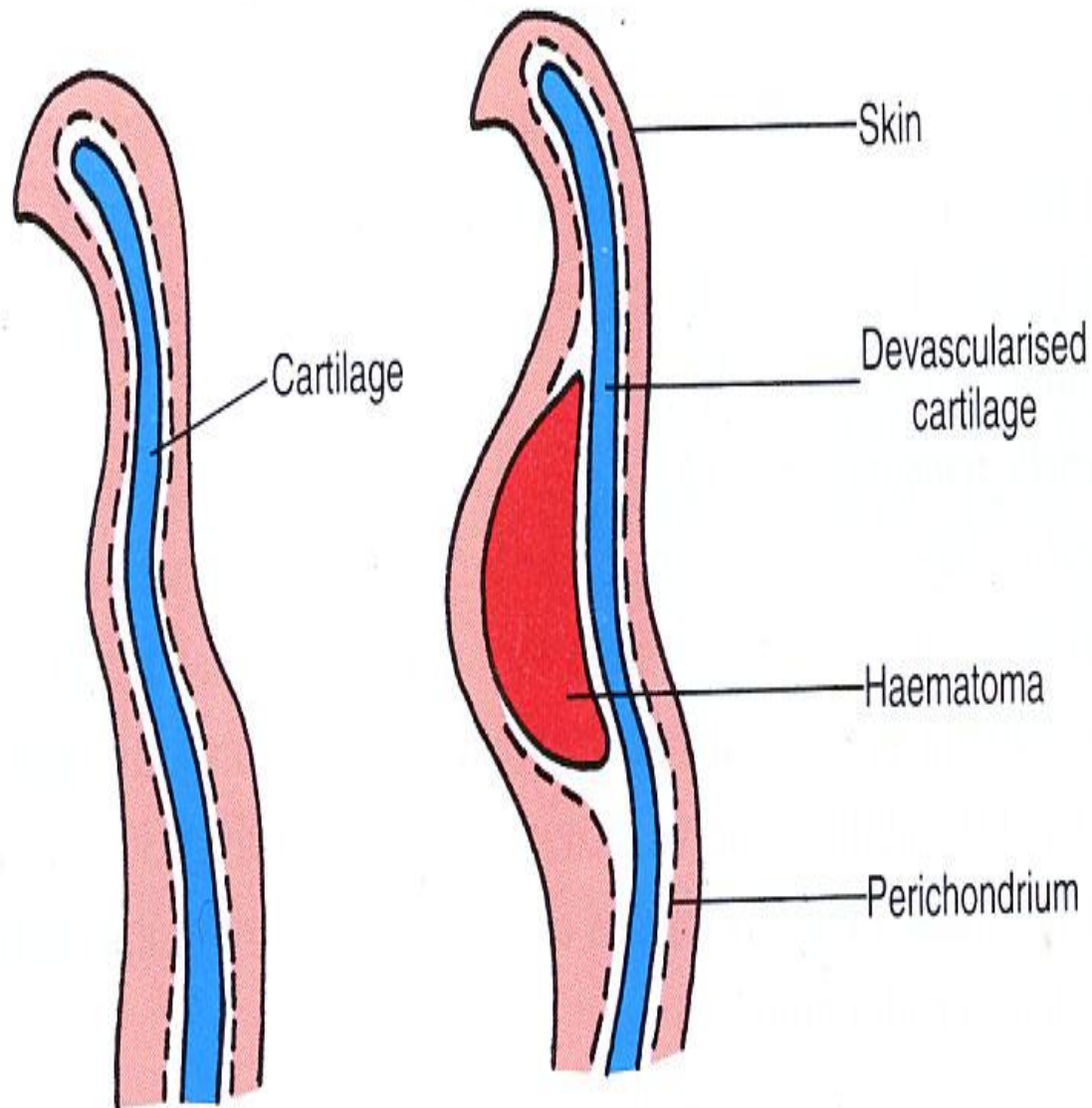


Fig. 37 Auricular haematoma. Such a haematoma can devascularize the cartilage.

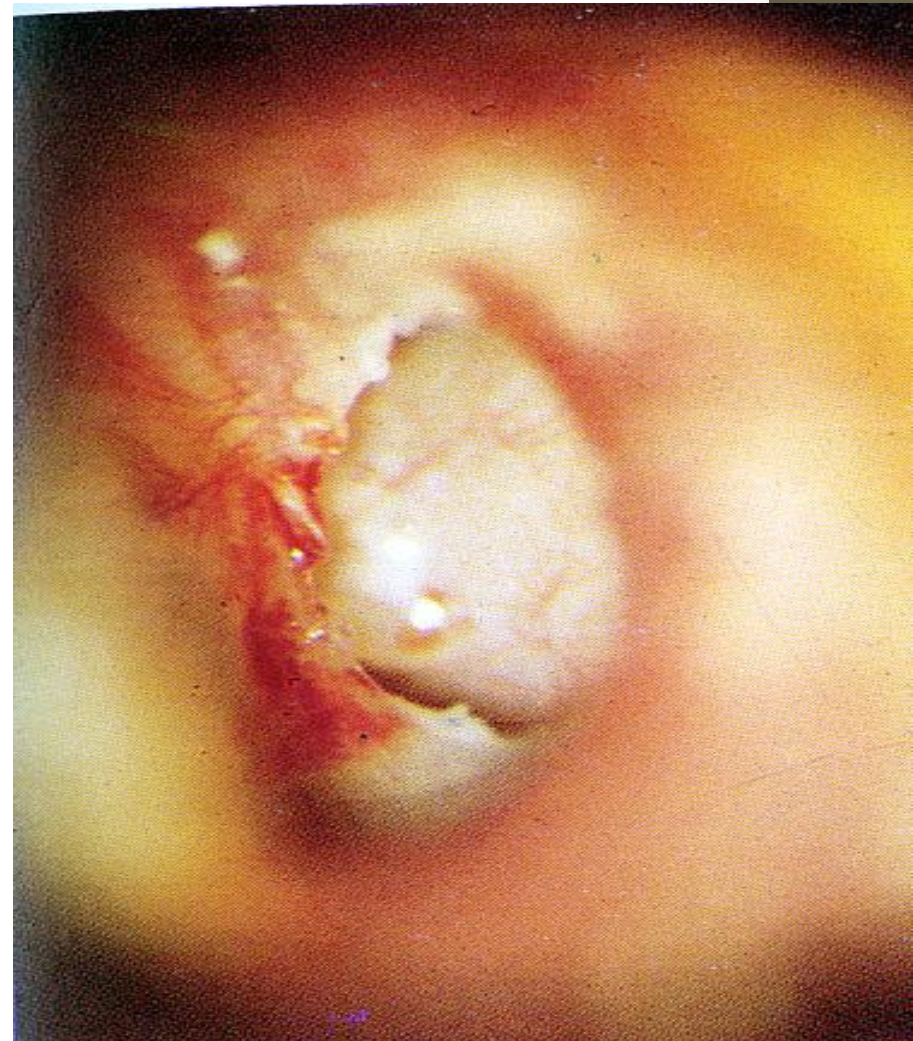








T.M TRAUMA



FOREIGN BODIES OF THE EXTERNAL EAR

- The best chance for removal of foreign body is first attempt
- Under an operating microscope.
- When it extremely painful:
 - General anesthesia may be necessary for young children
 - In adult local anesthesia
- Vegetable and plant debris can adhere to the skin of E.A.C on tympanic membrane.

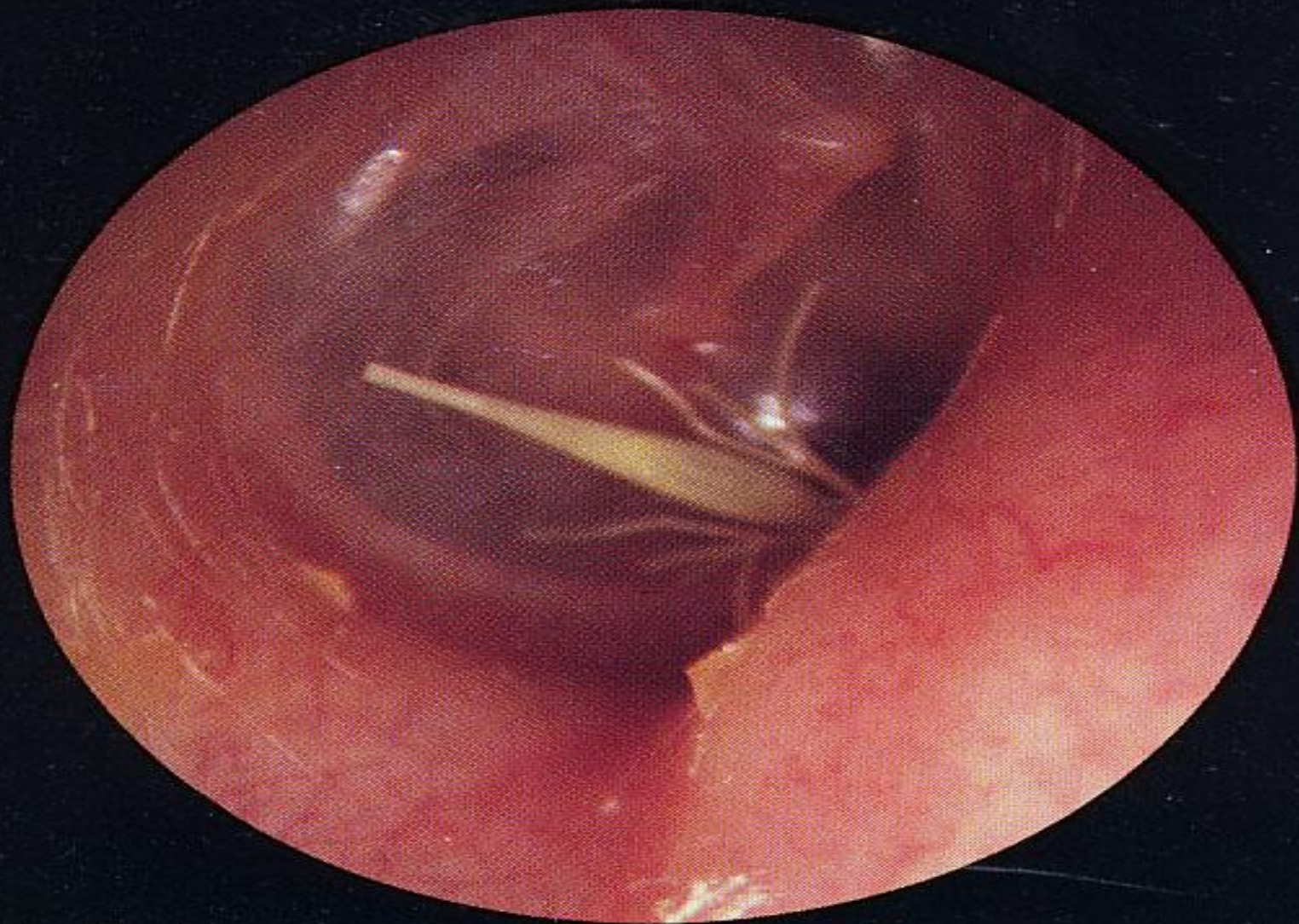


Fig. 7.14 Foreign body. A small seed can be seen lying against the tympanic membrane. This type of foreign body can be easily removed by syringing.

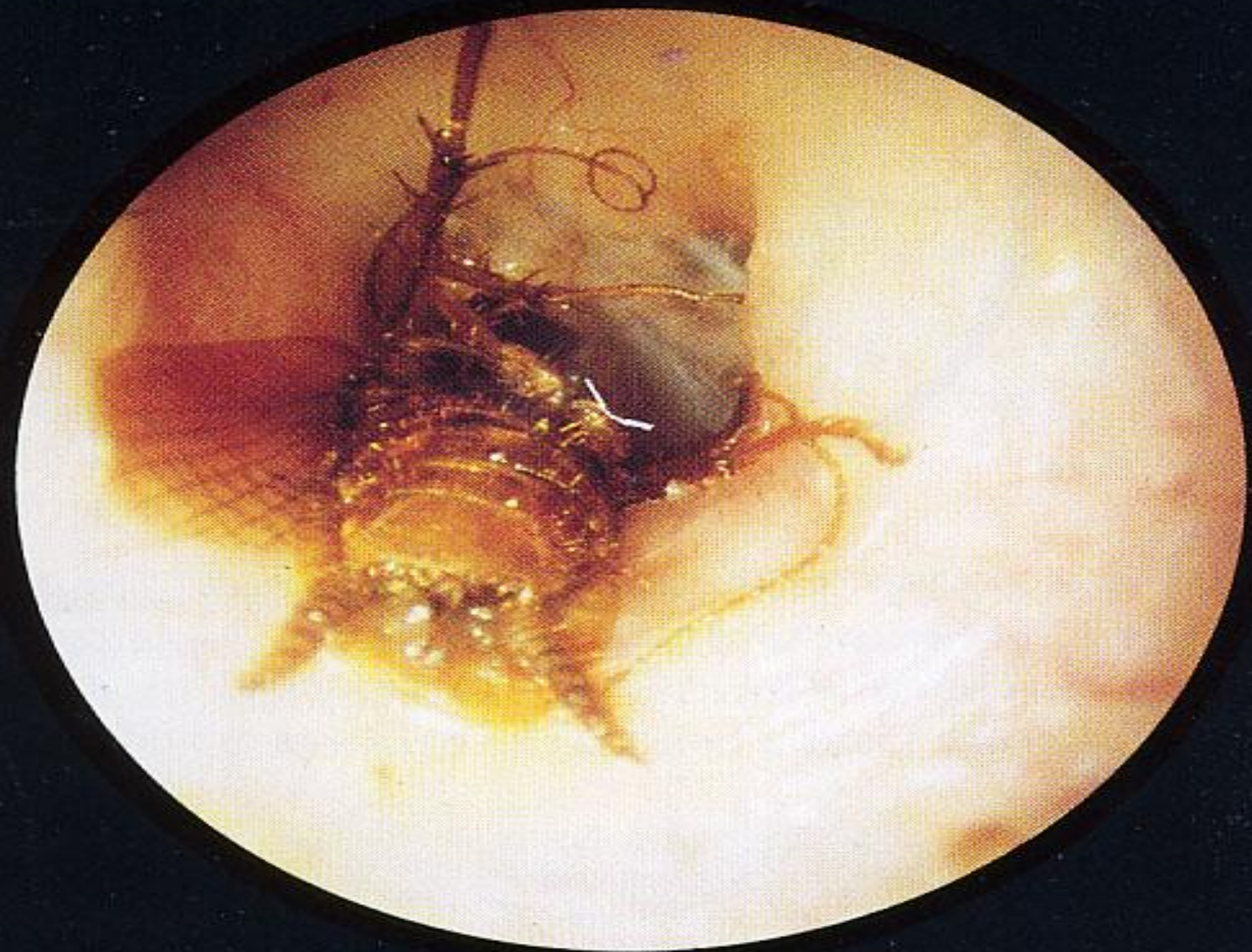


Fig. 7.15 Foreign body. A recently deceased *Blatella germanicus* can be seen lying on its back in the deep canal.

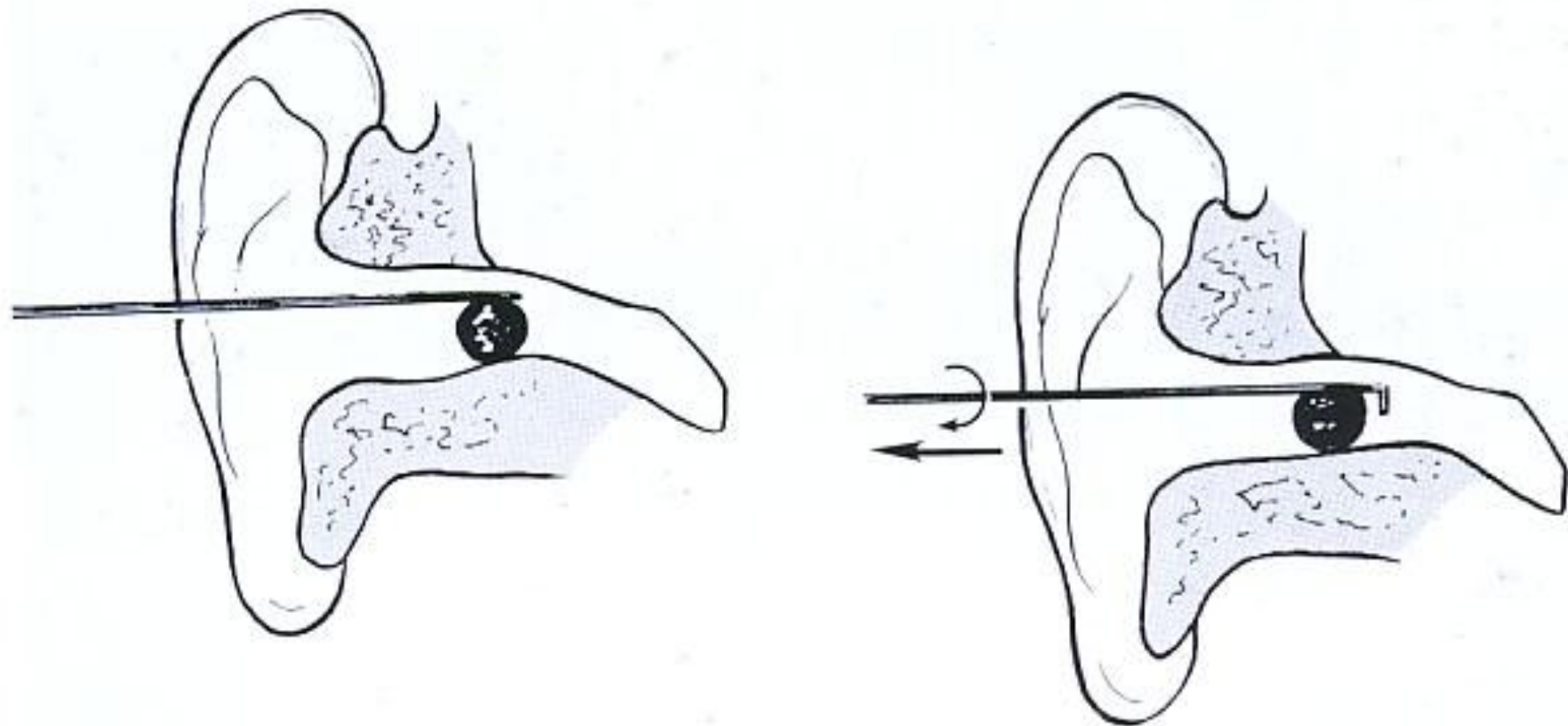


Fig. 7.16 Technique of wax removal. The use of a blunt wax hook for the removal of a foreign body. A blunt right-angle probe is inserted into the external canal and past the foreign body without touching either the canal wall or the foreign body. After insertion, the probe is rotated and the foreign body gently rolled out of the canal.

Classification of otities media

- acute otities media

- * suppurative

- * non sup

- * recurent

- Chronic otities media

- * suppurative => - Tubo . T
- cholesta

- * non suppurative => - otities with effusion

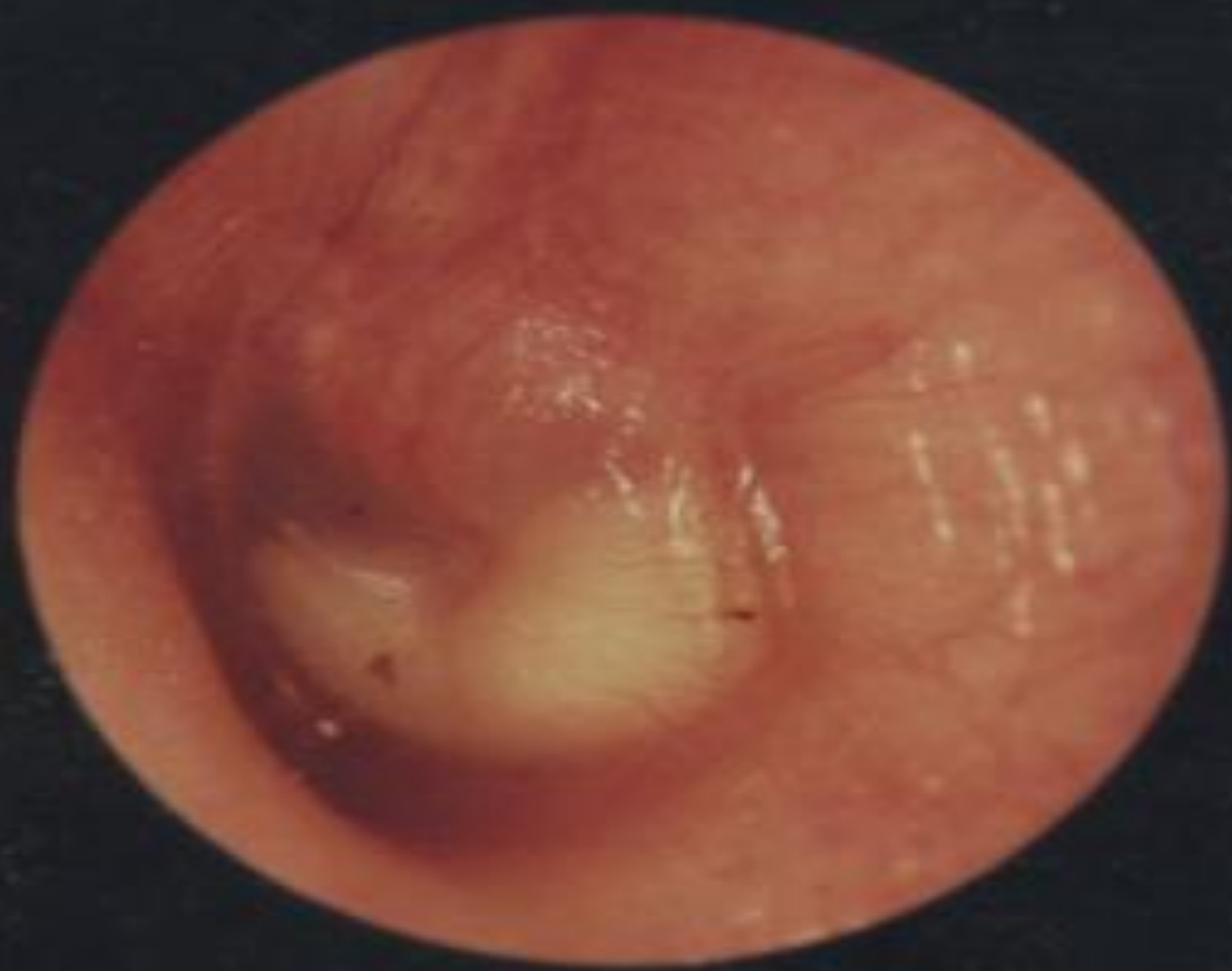
Acute otitis media

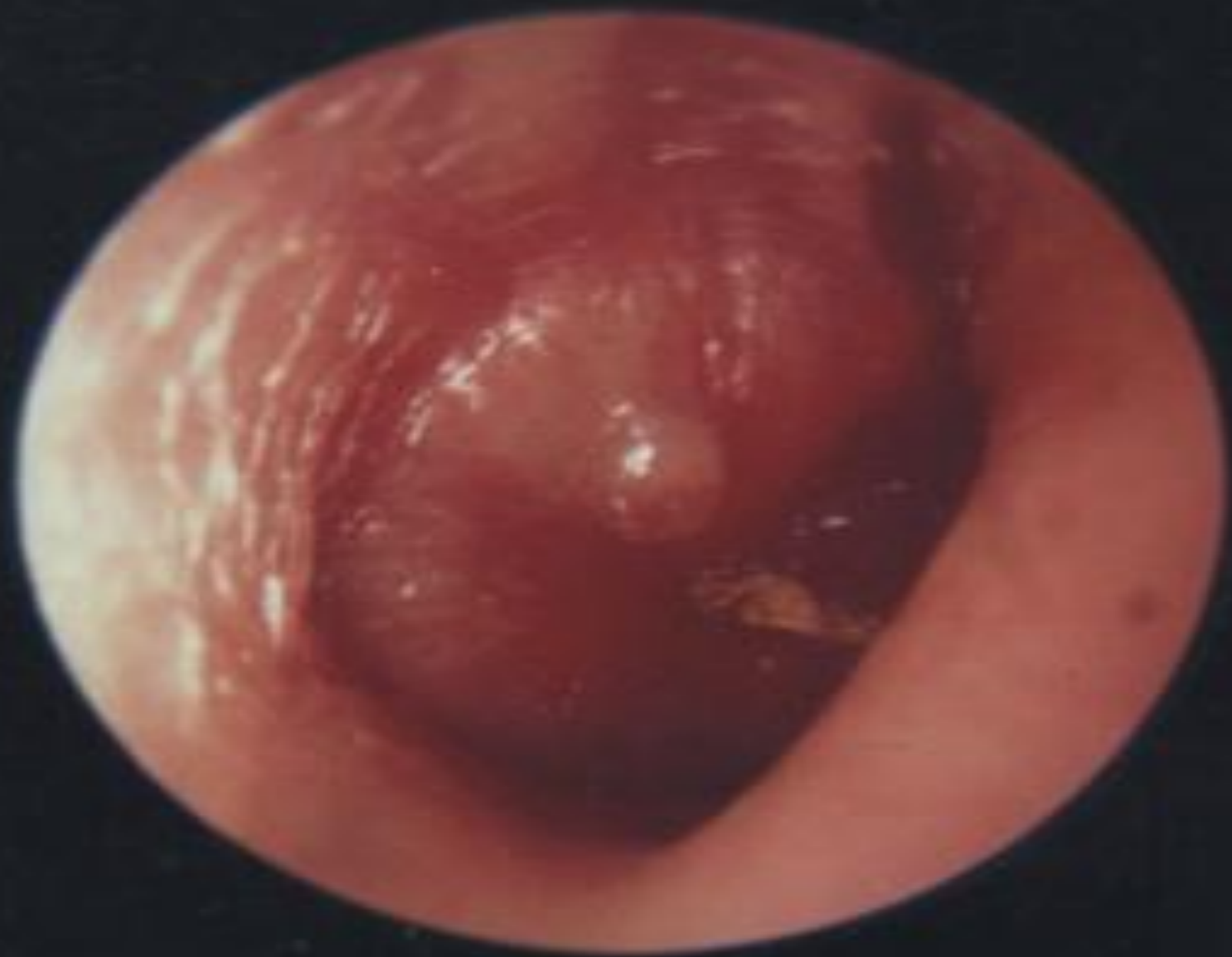
- most common infection disease seen in children
- First two years
- Suppurative , non .s , and recurrent
 - with out formation of effusion
- Non suppurative
 - with sterile effusion resolution may occur before suppuration

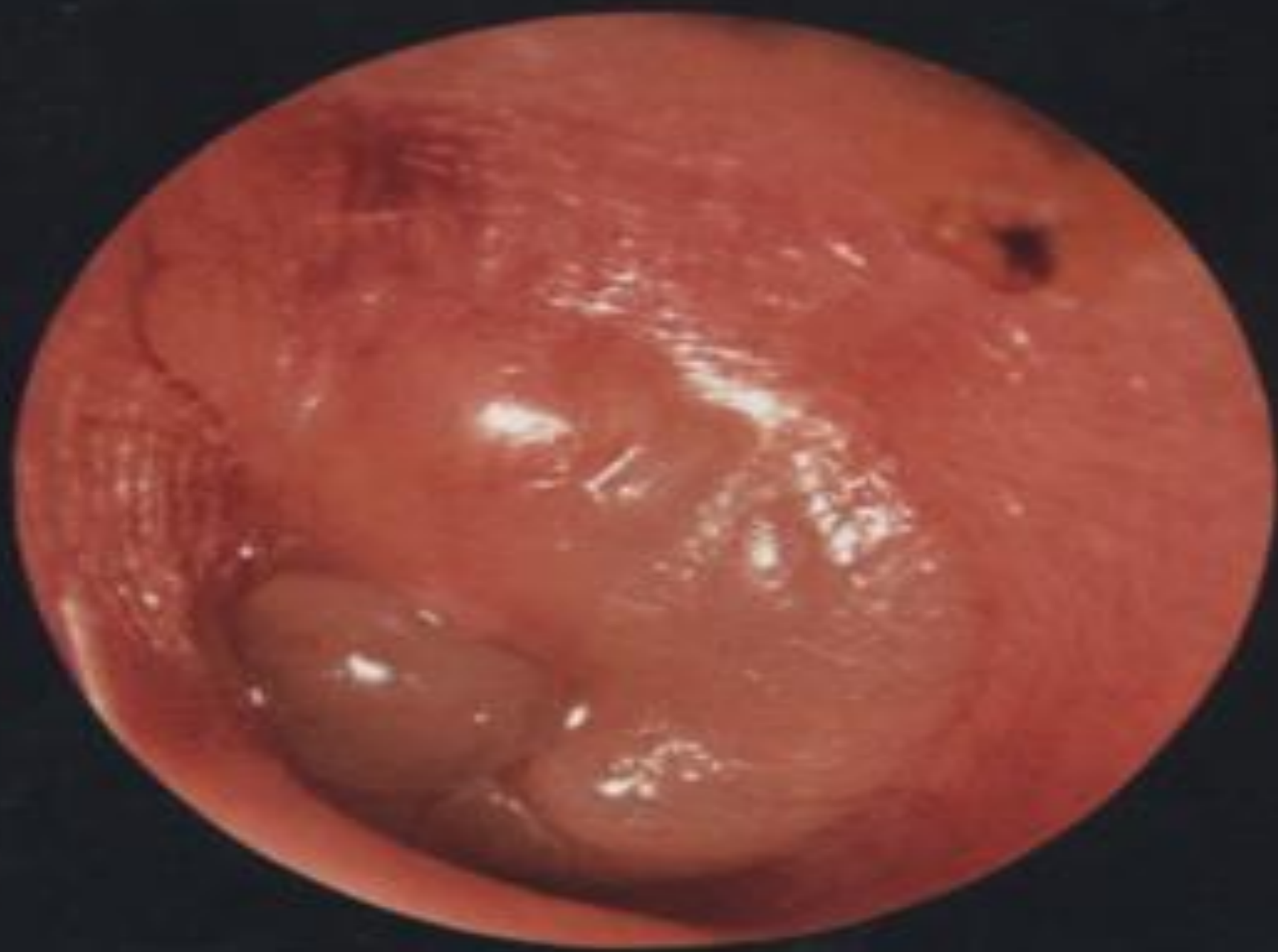
• Pathogenesis :

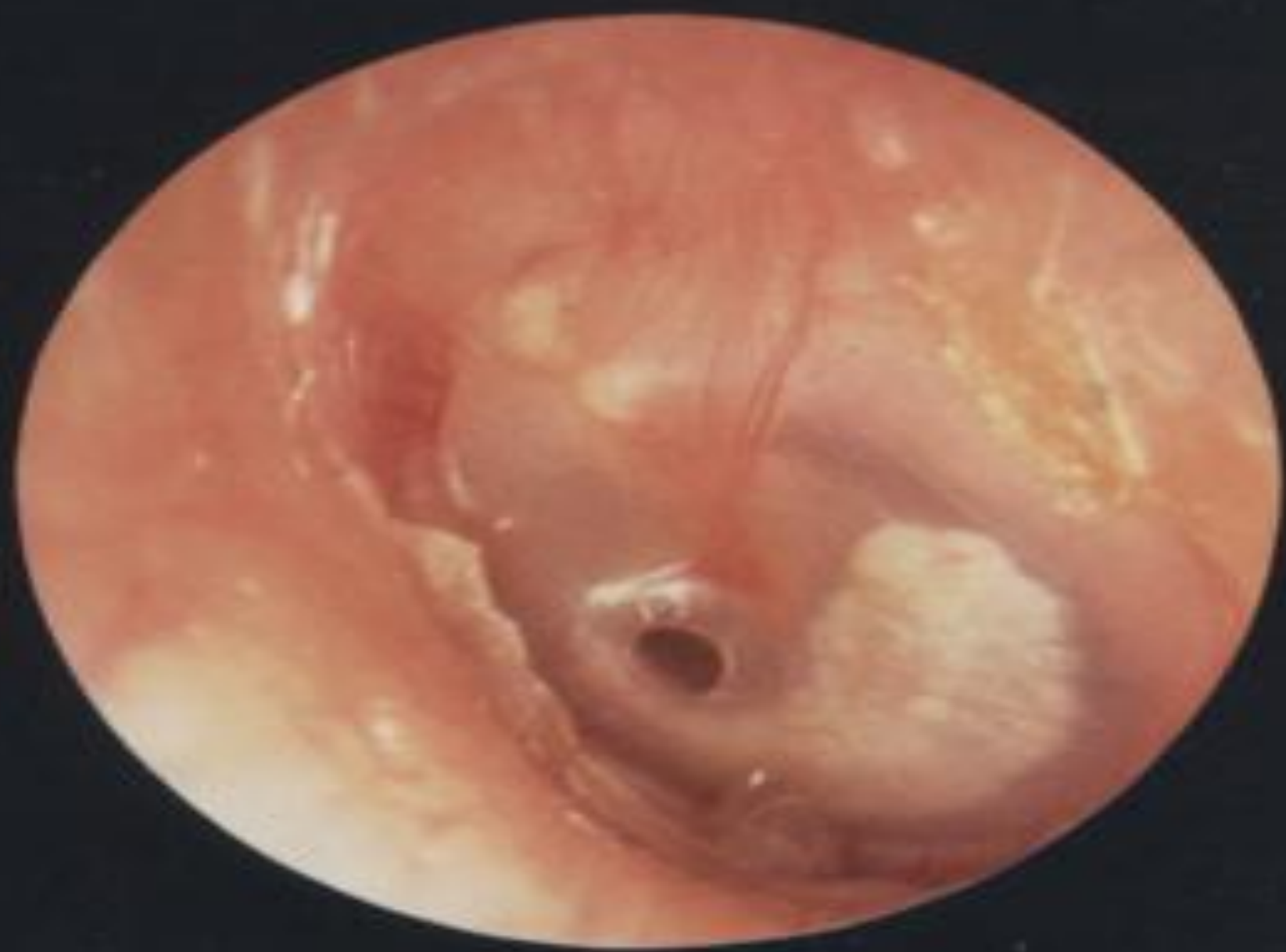
* Hyperemia , secretion , suppuration ,
resolution , coalescence











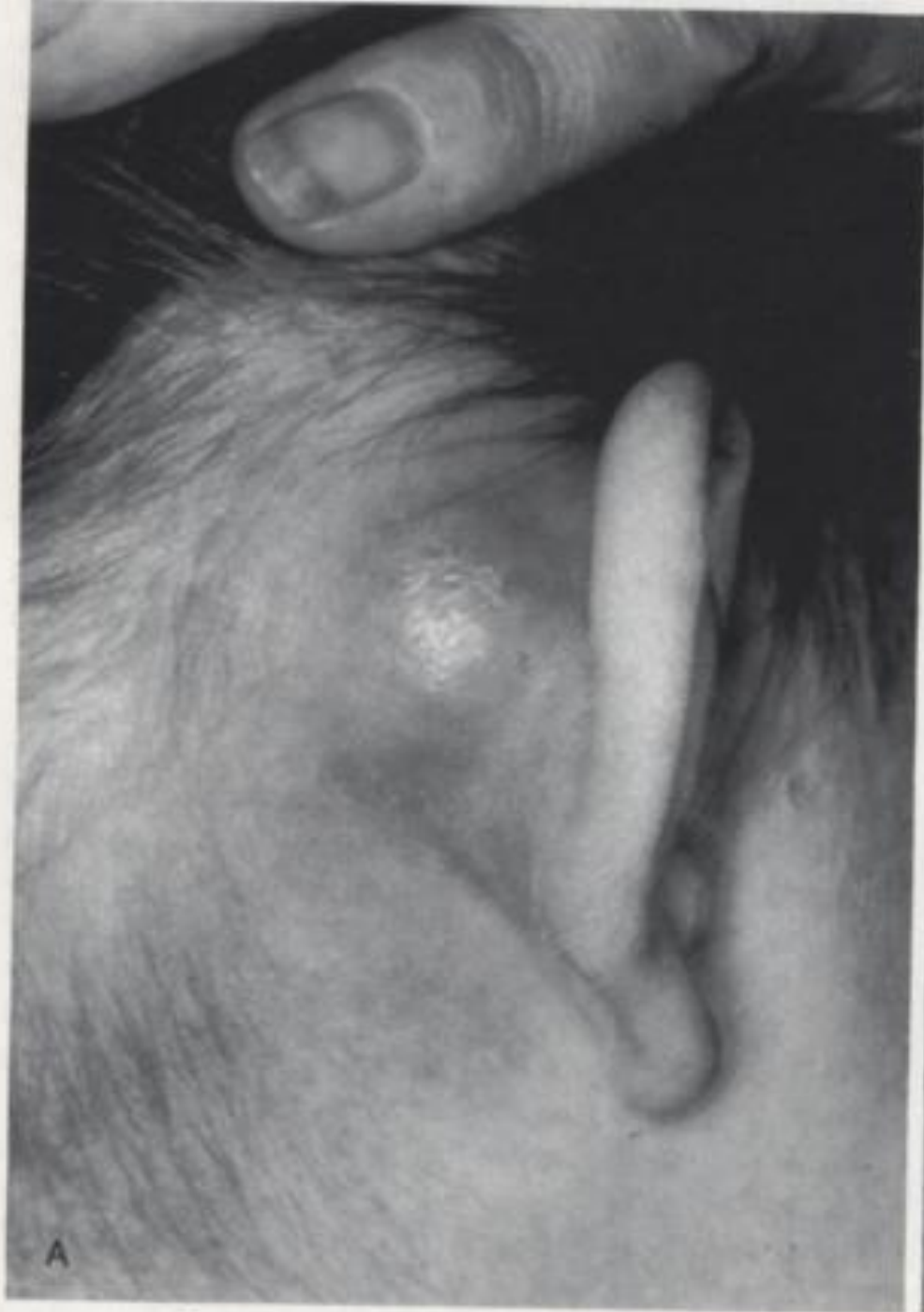


Figure 9-1. A and B. Mastoid subperiosteal abscess. (C) *Staphylococcus aureus*.



Acute mastoiditis



Acute mastoiditis

