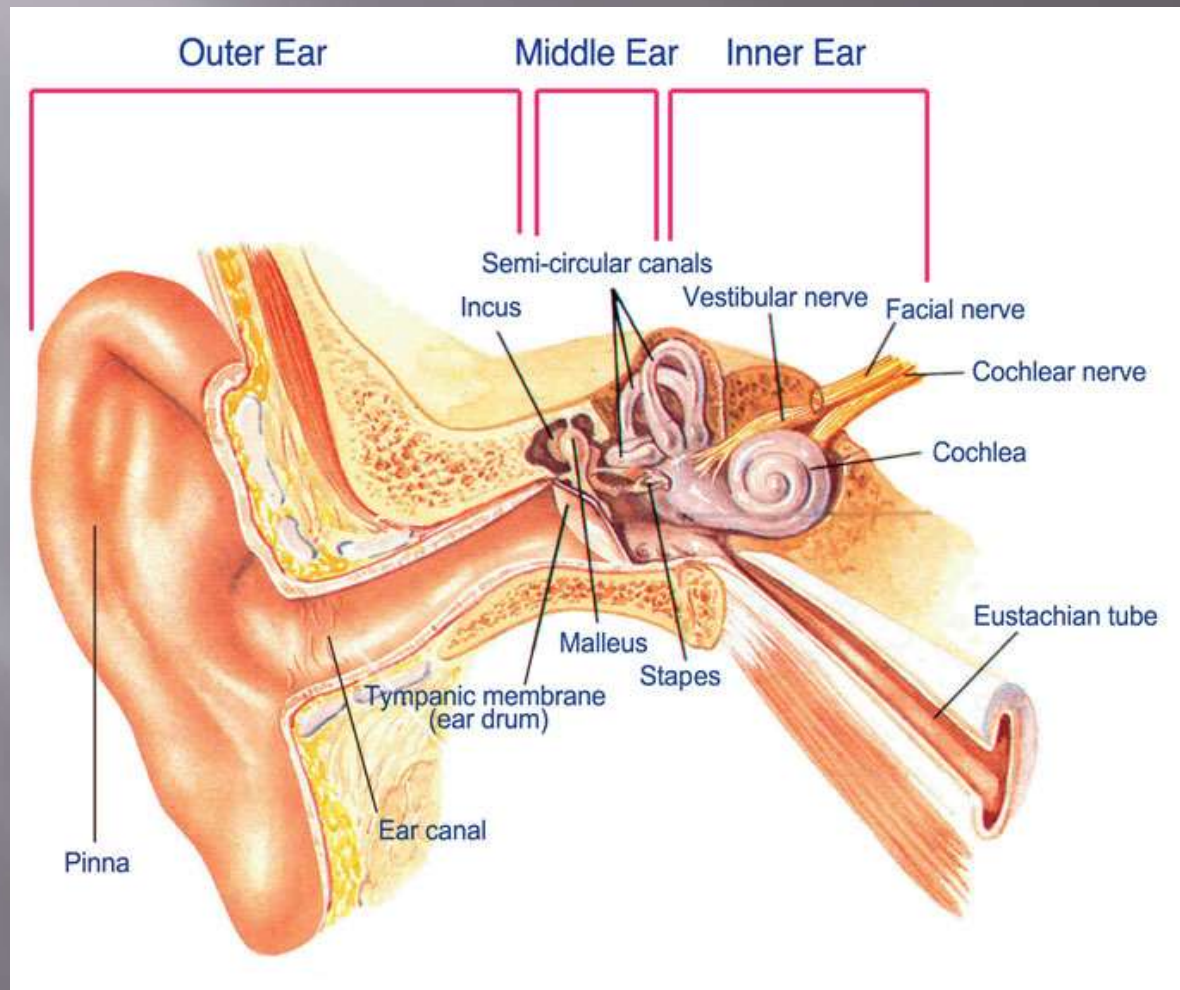


DIFFERENTIAL DIAGNOSIS OF EAR DISCHARGE

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Anatomy



Different diseases causing ear discharge

- ▣ Otitis externa
- ▣ Acute suppurative otitis media(ASOM)
- ▣ Chronic suppurative otitis media(CSOM)
- ▣ Malignancy of temporal bone
- ▣ CSF otorrhoea.

Otitis Externa-Furunculosis

- ▣ Acute localized infection
- ▣ Lateral 1/3 of posterosuperior canal
- ▣ Obstructed apopilosebaceous unit
- ▣ Pathogen: *S. aureus*



Furunculosis: Treatment

- ▣ Local heat
- ▣ Analgesics
- ▣ Oral anti-staphylococcal antibiotics like Amoxicillin, Azithromycin, etc
- ▣ Incision and drainage reserved for localized abscess
- ▣ IV antibiotics for soft tissue extension.

Otomycosis

- ▣ Mostly in children who are exposed to warm, moist climates or who have a Hx of chronic use of antibiotic ear drops.
- ▣ Fungal infection of EAC skin

- ▣ Primary or secondary
- ▣ Most common organisms: *Aspergillus* and *Candida*



Otomycosis: Signs

- Canal erythaema
- Mild oedema
- White, gray, green, yellow or black fungal debris

Otomycosis: Symptoms

- Often indistinguishable from bacterial OE
- Pruritus deep within the ear
- Otorrhoea
- Dull pain
- Hearing loss (obstructive)
- Tinnitus



Otomycosis: Treatment

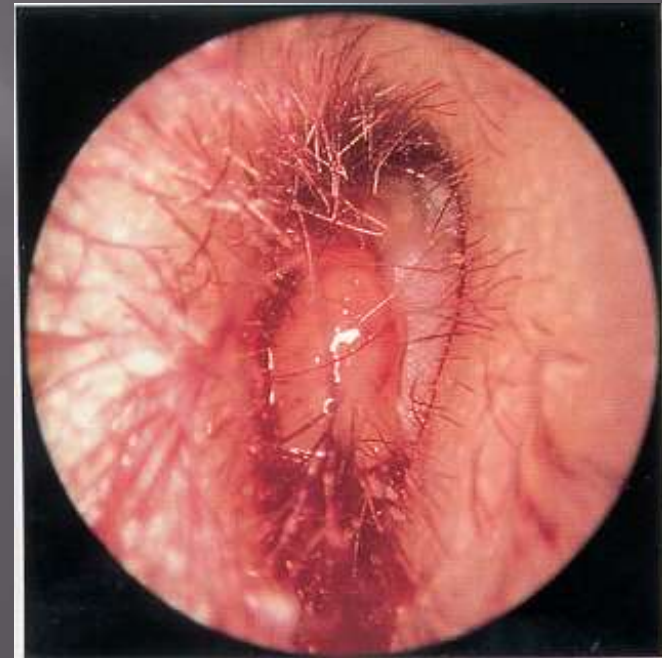
- ▣ Thorough cleaning and drying of canal
- ▣ Microscopic suction clearance..
- ▣ Topical antifungals.

Malignant (Necrotising) Otitis Externa

- ▣ Potentially lethal infection of EAC and surrounding structures
- ▣ *Pseudomonas aeruginosa* is the usual culprit
- ▣ Risk Factors:
 - Diabetes Mellitus
 - Elderly
 - Immunocompromised state
 - Human Immunodeficiency Virus (HIV)

Signs & Symptoms

- ▣ Similar to Otitis Externa except
 - Severe, unrelenting Ear Pain and Headache
 - Persistent discharge
 - Does not respond to topical medications
 - Commonly associated with Diabetes Mellitus
- ▣ Granulation tissue.
- ▣ Extra-auricular findings
 - Cervical Lymphadenopathy
 - Trismus (TMJ involvement)
 - Facial Nerve Palsy .
 - ▣ Associated with poor prognosis

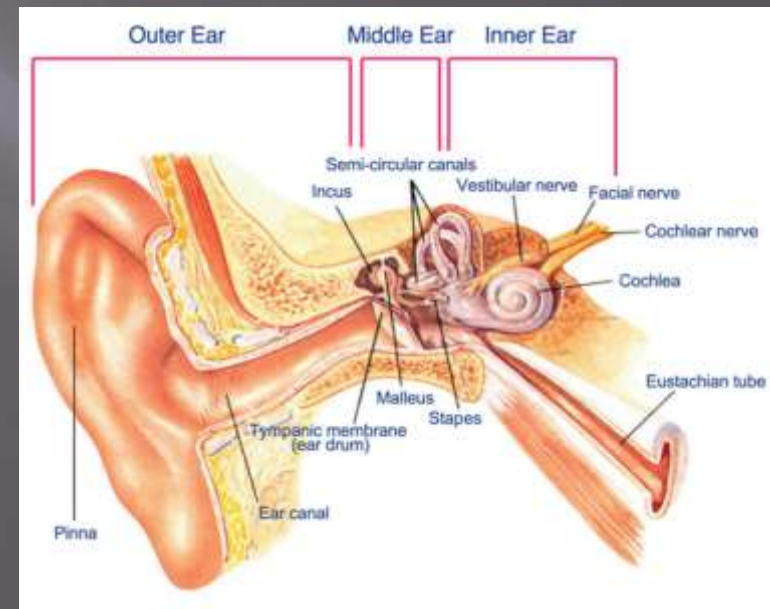


Treatment

- ▣ Intravenous antibiotics (fluoroquinolones) for at least 4 weeks.
- ▣ Local canal debridement until healed
- ▣ Pain control
- ▣ Hyperbaric oxygen experimental
- ▣ Surgical debridement for refractory cases

Middle ear

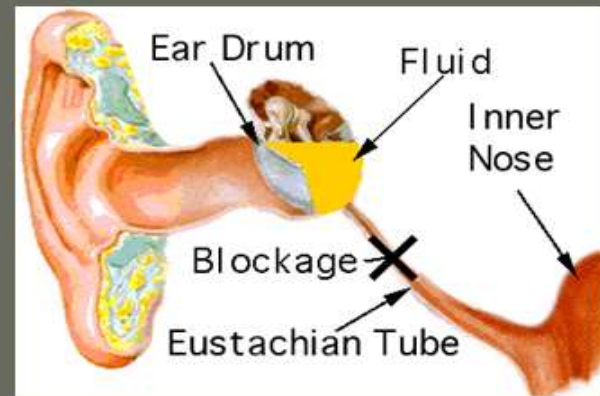
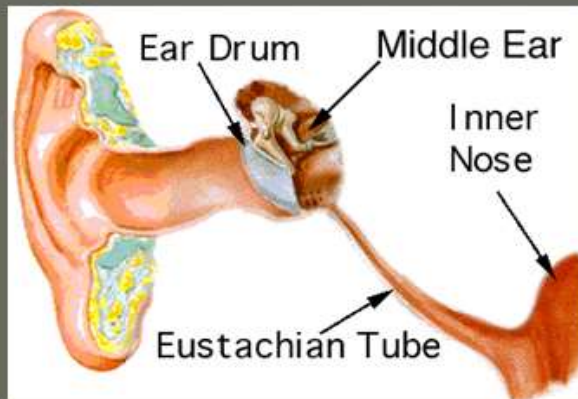
- Mucopurulent yellowish or green coloured discharge.
- A.S.O.M.(Acute suppurative Otitis media)
- C.S.O.M.(Chronic suppurative Otitis media)



ASOM

- ▣ Acute inflammation of the middle ear cleft.
- ▣ Commonly seen in children .
- ▣ Usually consequent to an upper respiratory tract infection.

Pathology



Treatment

- ▣ Treat URTI
- ▣ Broad spectrum antibiotics like amoxicillin/ ampicillin/ erythromycin .
- ▣ Parenteral if complications suspected
- ▣ Nasal decongestants
- ▣ Analgesics.

C.S.O.M.

- ▣ Chronic suppurative otitis media
 - Continuous or intermittent ear discharge
 - Foul smelling
 - Permanent perforation of tympanic membrane.
 - Hearing loss
 - Sometime may present with complications...



Investigations for CSOM

- ▣ **Examination under microscope (Otomicroscopy)**
- ▣ **Pure tone audiometry**
- ▣ **X-ray mastoid: B/L lateral oblique (Schuller)**
- ▣ **Sometimes HRCT TEMPORAL BONE if any suspected complications.**

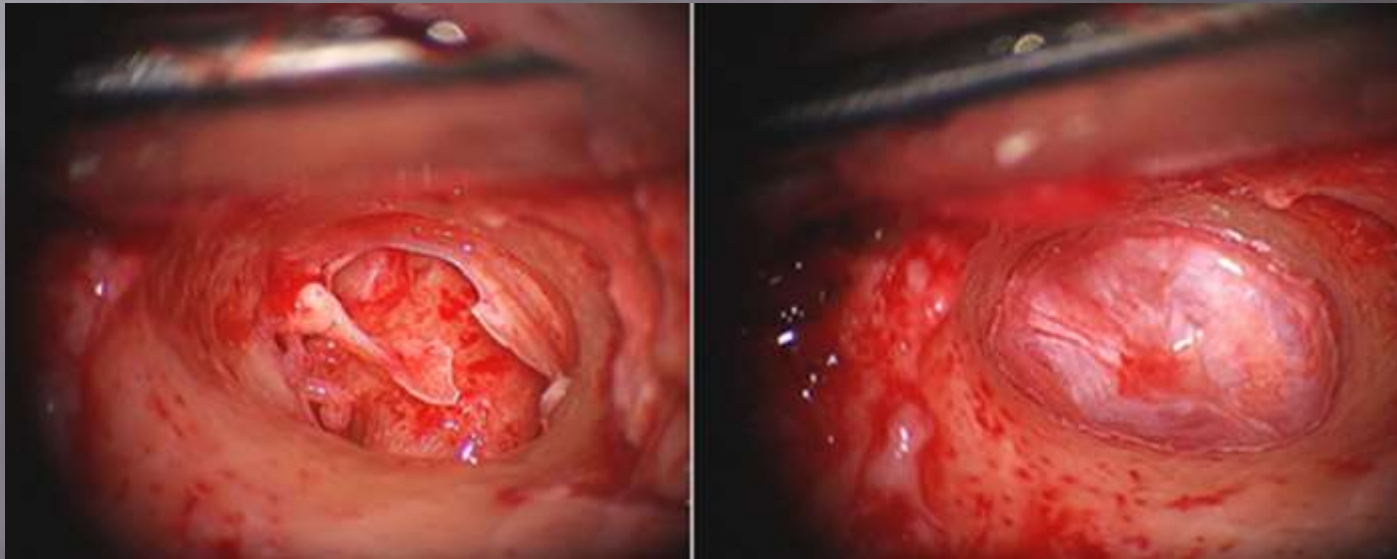
Treatment

- ▣ **Precautions**
- ▣ **Aural toilet**
- ▣ **Antibiotics : Systemic & Topical**
- ▣ **Antihistamines : Systemic & Topical**
- ▣ **Nasal decongestants : Systemic & Topical**
- ▣ **Treatment of respiratory infection & allergy.**

Surgical Treatment

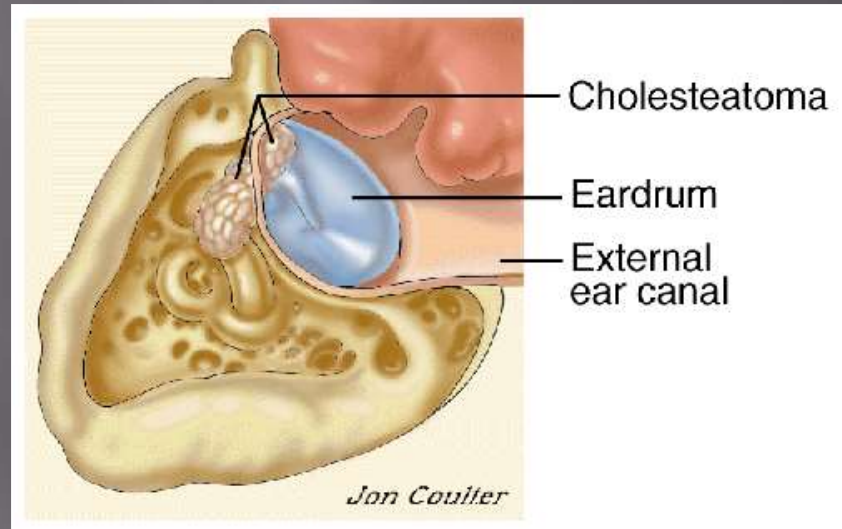
TYMPANOPLASTY

‘Removal of disease and reconstruction of hearing mechanism’



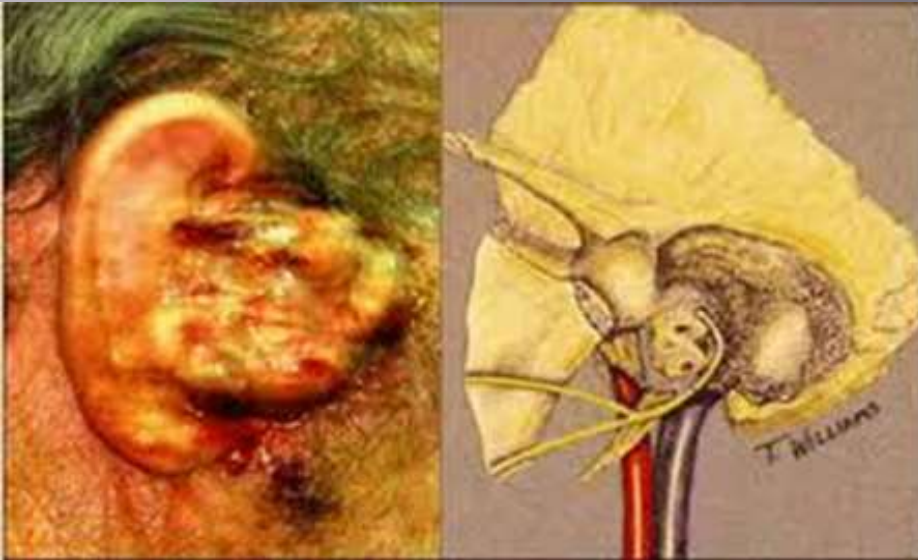
Mastoidectomy

- ▣ Intact (bony ear) canal wall mastoidectomy
- ▣ Canal wall down mastoidectomy
 - Radical Mastoidectomy (dead ear)
 - Modified Radical Mastoidectomy



Different diseases causing ear discharge

- ▣ Otitis externa
- ▣ Acute suppurative otitis media(ASOM)
- ▣ Chronic suppurative otitis media(CSOM)
- ▣ **Malignancy of temporal bone**
- ▣ CSF otorrhoea.



- ❑ Common in old age group
- ❑ Blood stained ear discharge
- ❑ Facial palsy
- ❑ Treatment-Complete excision of temporal bone

C.S.F.Otorrhoea

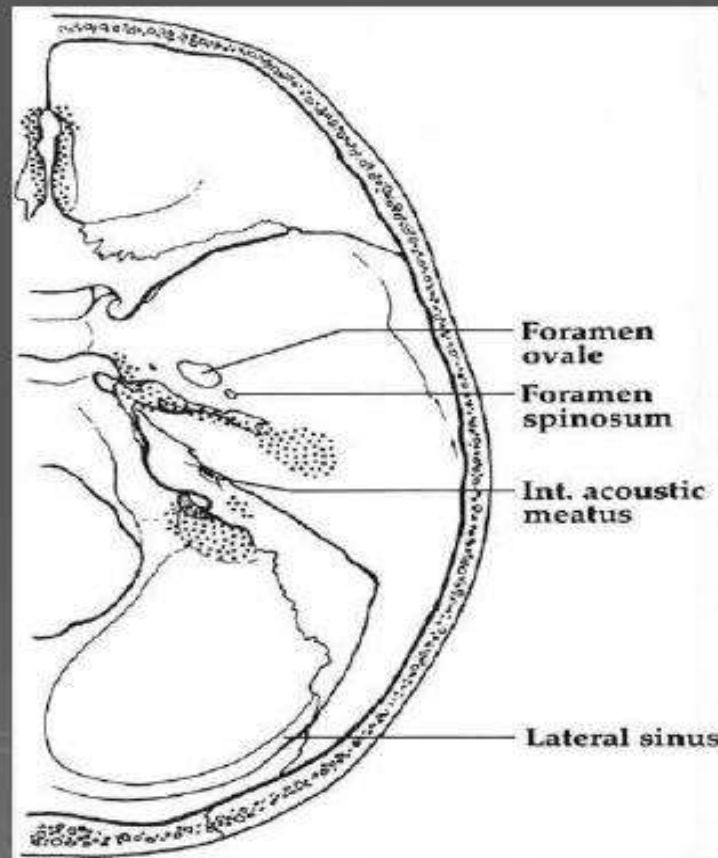
- ▣ Clear watery discharge
- ▣ The most common cause is trauma causing fracture of temporal bone
- ▣ Malignancy
- ▣ C.S.O.M.
- ▣ Iatrogenic.

HRCT Temporal Bone



Surgical approaches

- Transmastoid
 - Not ideal for large defects (>2cm), multiple defects, or defects that extend anteriorly
- Middle cranial fossa
 - Technically challenging
 - Best exposure
- Combined approach



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- ▣ Opd facilities
- Nasal endoscopy
- Videolaryngoscopy
- Ear microscopy
- Ent consultation



Operation theatre



>Ear surgeries like
Tympanoplasty, Mastoidectomy
Myringotomy, Facial Nerve decompression.

>Nose surgeries like
Septoplasty,
FESS(functional endoscopic sinus surgery)
Rhinoplasty.

➤ Throat surgeries like
Tonsillectomy, Adenoidectomy, Vocal cord surgery
....etc



- ▣ Audiometry
- ▣ Hearing aid
- ▣ Speech therapy



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