Chronic SOM and its complications
Definition

- It is the longstanding infection of the middle ear cleft which is characterized by persistent or intermittent infected discharge through a permanent perforation of tympanic membrane.
Ch.SOM

- Tubotympanic, benign and safe
- Atticoantral, progressive and dangerous
Etiology

- **Tubotympanic**
  - Permanent perforation of T M
  - Poor functions of eustachian tube
  - Infected focus in URT

- **Atticoantral**
  - Cholesteatoma
• T M acts as protective barrier, when it is lost (perforated) bacteria from the external ear directly contaminate the middle ear
Cont.

The intact tympanic membrane acts as air cushion in the middle ear which prevent reflex of nasopharyngeal secretions & bacteria into middle ear.
Pathogenesis Atticoantral

Cholesteatoma
Skin in wrong place (middle ear)
It is squamous epithelium lined sac filled with desquamated keratinized epithelium

• Types
  • Congenital
  • Acquired primary, secondary
Pathogenesis of Cholesteatoma

- Congenital rest theory
- Invagination theory
- Invasion\ Migration theory
- Metaplastic theory
- Basal cell hyperplasia
Erosion of bony structures by cholesteatoma

- Mechanism
- Increased vascularity
- Products of bactarial infection—- toxins
- Pressure necrosis
- Cytokines—- Interlukines
Bacteriology of ch.SOM

- Staphylococcus
- Bacillus proteus
- Pseudomonos
- E-coli
- Strep. viridans and pneumoni
- Anaerobes  Bacteroids
Clinical features

- Ear discharge
- Hearing loss
- T M perforation
- Middle ear mucosa
- Granulations polyps
- Cholesteatoma
Investigations

- C\S of ear discharge
- Examination under microscope
- Audiogram
- X-Rays mastoid
- C T scan
Management of tubotympanic

• Water proof ear
• Aural toilet
• Antibiotic ear drops
• Systemic antibiotics
• Treatment of infective focus in URT (Tonsillitis, Adenoids, Rhino-sinusitis)
• Myringoplasty \ Tympanoplasty
Management of Atticoantral

- Water proof ear
- Aural toilet
- Antibiotic ear drops
- Systemic antibiotics
- Canal wall down operations
  - Atticotomy
  - Modified radical mastoidectomy
  - Radical mastoidectomy
Contd

• Canal wall up operations
  Cortical mastoidectomy with second look operation

• Combine approach tympanoplasty
Indications for radical surgery

- When intracranial complications are imminent
- When there is extensive cholesteatoma
- When previous conservative surgery has failed to eradicate the disease
- In unilateral disease when patient wants dry ear
Intracranial Complications

• Extradural abscess
• Subdural abscess
• Brain abscess
• Meningitis
• Lateral sinus thrombosis
• Otitic hydrocephalus
Extracranial complications

- Facial nerve paralysis
- Petrositis
- Labyrinthitis
- Bezold's abscess, zygomatic abscess, Citilli's abscess
- Post auricular abscess
Routes of spread of infection

• Extension through preformed pathways
• Extension by bony erosion
• Extension by progressive thrombophlebitis through haversian venous channels
Features of Complications of CSOM

- Persistent Headache
- Earache, pain & swelling around the pinna
- Fever
- Altered consciousness
- Vertigo, Nausea & Vomiting
- Facial weakness
- Irritability, Neck rigidity etc.
Management of Complications

• Admission
• Systemic Antibiotics
• Investigations
• Early Neurosurgical consultation & intervention
• Treatment of the primary ear disease resulted in complications