

SUPPURATIVE OTITIS MEDIA

CLASSIFICATION

1-Acute suppurative otitis media.

2-Chronic suppurative otitis media.

Acute suppurative otitis media. It is an acute suppurative inflammation of the periosteal layer of the middle ear cleft by suppurative microorganism. It is commonly seen in children but adults may also get affected.

Route of infection.

- 1-Infection through the Eustachian tube to the middle ear.
- 2-Traumatic perforation.
- 3-Blood borne infection but very rare.

Common microorganisms

Streptococcus, pneumococcus, H.influenza,
Moraxella catarrhalis, Pseudomonas

CLINICAL FEATURES

Stages

1-Stage of hyperemia

2-stage of exudation.

3-stage of suppuration.

4-stage of coalescent mastoiditis.

5-Stage of complications

6-stage of resolution.

Symptoms

- 1-earache
- 2-obstruction or fullness of the ear.
- 3-deafness.
- 4-fever.
- 5-Associated symptoms like runny nose and nasal obstruction.

SIGNS

- 1-Congested tympanic membrane with distortion of the landmark and dilated radial blood vessels.
- 2-Ear discharge. variable from mucoid to bloody or serosanguinous
- 3-Nasal mucosa congested or mucopurulent discharge.



TREATMENT

- 1-Analgesics and antipyretics.
- 2-Antibiotics.
- 3-Decongestants.
- 4-Nasal drops.
- 5-Maringotomy.
- 6-dry mopping or suction clearance.

CHRONIC SUPPURATIVE OTITIS MEDIA

It is defined as chronic inflammation of mucoperiosteal lining of the middle ear cleft.

CLASSIFICATION

- 1-Tubotympanic(safe type)
- 2-Atticoantral(dangerous) ▣

TUBOTYMPANIC TYPE

Etiology.

1-Predisposing factors

- Inadequate or improper treatment of ASOM.
- Infection from the surrounding area like nose, nasopharynx and oropharynx.

-Inadequate pneumatization of mastoid.

2-Microorganism.Gram negative like pseudomonas and proteus.Streptococcus.staphylococcus.

Symptoms

1-Discharge:profuse,intermittent,mucopurulent and non foul smell.

2-Deafness-mild conductive.

3-Earache-if associated with otitis externa.

Signs

- 1-Discharge is present in the external auditory meatus.
- 2-Tympanic membrane-central perforation occur in pars tensa.
- 3-Tuning fork tests.
Rinne-negative Weber-Lateralised to the affected side.



Investigations.

- Culture and sensitivity of the discharge.

- Examination under microscope;To see

- 1-The margin of perforation

- 2-granulation tissue and polyp

- 3-middle ear mucosa and ossicular chain

- 4-cholesteatoma

- Pure tone audiogram
- X-ray of mastoids
- X-ray of paranasal sinus
- X-ray of soft tissue of the neck lateral view.
- Diagnostic nasal endoscopy.

TREATMENT

Medical management

1-Aural toilet by

a-dry mopping

b-Suction clearance □

2-Antibiotic ear drops after culture and sensitivity

Surgical management

- Removal of septic foci,e.g Tonsillectomy, adenoidectomy and sinus wash.
- Maringoplasty.
- Cortical mastoidectomy.

ATTICO-ANTRAL TYPE

It is usually associated with cholesteatoma formation.

CHOLESTEATOMA

It is defined as a sac in the middle ear which is lined by keratinizing stratified squamous epithelium containing desquamated epithelium as keratin debris.

TYPES

1-Congenital.It arise from embryonic epidermal cell in the middle ear cleft or temporal bone, usually present as a white mass behind intact tympanic membrane, it may also spontaneously rupture through the tympanic membrane ,it may occur at

-Middle ear

-Petrous apex

-Cerebellopontine angle.

2-Acquired.

- a-Primary type.occurs in the ear where there is no previous history of ear discharge or tympanic membrane perforation.
- b-Secondary type.always occurs in an already diseased ear where pre-existing tympanic membrane perforation



Primary acquired cholesteatoma



THEORIES

- 1-Retraction pocket theory
- 2-Migration theory.
- 3-metaplasia theory.
- 4-Implantation theory.

CLINICAL FEATURES

Symptoms

- 1-Ear discharge.It is scanty ,purulent occasionally blood stained and foul smell.
- 2-Deafness.progressive conductive.
- 3-Itching and pain in the ear.
- 4-Tinnitus.

Signs

Otoscopic findings

- 1-foul smell discharge
- 2-Granulation tissue in the posterosuperior part of deep meatus.
- 3-Tympanic membrane shows attic,marginal or total perforation
- 4-Whitish cholesteatoma.
- 5-Mastoid tenderness.
- 6-Tuning fork examination shows the negative rinne,weber lateralized to the affected ear.

INVESTIGATIONS

1-Examination under microscope

2-Culture and sensitivity.

3-PTA

4-Imaging.X-ray of the mastoid.It shows bony erosion and cavity.

Differential diagnosis of cavity in the mastoid

-mega antrum

-postmastoidectomy cavity

-cholesteatoma

- eosinophilic granuloma
- tuberculosis
- multiple myeloma
- large facial neuroma
- cholesterol granuloma
- carcinoma

2. CT scan

3. MRI

MANAGEMENT

Surgical management

It is the main line of management of atticofacial type, it is divided into two groups

1-Canal wall down mastoidectomy.

2-Canal wall up mastoidectomy.

Medical management

In patients who are medically unfit for surgery or in patients with cholesteatoma in only one ear, it includes topical agents