ENT MANAGEMENTS

Trauma to the Auricle

- Hematoma auris blood inside has to be drained to prevent necrosis to the cartilage
- When we treat hematoma? Immediate incision and drainage! So, don't develop into cauliflower ear (necrosed cartilage) . same as septal hematoma should be treated immediately to prevent necrosis (common in children after trauma)

Perichondritis of the Pinna

- immediately by parenteral antibiotics & drainage.
    - Antiobiotic of choice: ciprofloxacin
    - Analgesics - NSAIDs
    - Incision and drainage
- Any cartilaginous organ that forms a hematoma must be drained as early as possible.
- If it is due to piercing the stud should be removed.

Furuncle

- incision and drainage if there's an abscess and local antibiotics

swimmer's ear

- Put a sponge that sucks the antibiotic drops

Otomycosis

- Aural toilet by microsuction (Cleaning is the most imp step.)
- Topical antifungal ear drops x4 weeks
- Keratolytic agents - salicylic/ acetic acid
- Gentian Violet - prevent biofilm formation

Bullous Myringitis

- It is very painful so we will not drain it, we give local analgesic until it spontaneously resolves. Antibiotics are ineffective.
- Topical steroids
- Do not touch. if we open, it will turn the viral to bacterial that end up with perforation

Herpetic otitis externa

- Management: Steroids + Acyclovir
- Complications: Facial n. paralysis

Wax removal

- Syringing - very rare nowadays
- Suction (microsuction after giving wax dissolvants)
- Irrigation

Malignant otitis externa

- DOC - Ciprofloxacin
- IV anti pseudomonal antibiotics

Middle ear infections

- Symptomatic
- Analgesia
- Antimicrobials (broad spectrum)
- Myringotomy (for adult only)
- Ear toilet and local antibiotics.
- Bulging + severe pain + adult > make small opening to relieve the pain.
- If not → nasal steroid spray so eustachian tube opens and remove the pus + oral AB

Recurrent otitis media

- Long-term low dose antimicrobials.
- Ventilation tube insertion, in the inferior part which allows the air to enter the middle ear and drainage (open) of fluid from the Eustachian tube.
- The ventilation tube is inserted inferiorly to avoid injury to the ossicles

Diagnosis of History: there will be a history of previous infections with hearing loss

- Clinical Examination (effusion) / Otoscopy (air fluid level) / Microscopy (superior than otoscopy)
- Tuning fork tests (Weber and Rinne test)
- Audiogram (CHL and SNHL)
- Tympanogram (type B)

Management of otitis media with effusion (Glue ear/ serous otitis media)

- Antibiotics - not for all patient these days, we use nasal steroid instead to release fluid from eustachian tube
- Surgery: Tympanostomy tube insertion: “ventilation tube” Bypass Eustachian tube to ventilate middle ear

Chronic otitis media

- Treatment is nasal wash and nasal steroid to treat the Eustachian tube, we don’t give ear drops b/c the tympanic membrane is normal, after 3 months if medical treatment didn’t work, we do surgery which is myringotomy and ventilation tube insertion
- If you have for example a child with speech delay, adult with SNHL, development of mastoiditis or facial paralysis we don’t wait we put the tube directly, same if the tympanic membrane starts to medialize.

Investigation of CSOM

- Audiometry

- CT scan
- MRI. If we suspect intracranial extension

Treatment of CSOM

Conservative: - Treat any predisposing factor

- Keep the ear dry
- Ear toilet
- Ototopical Antibiotic:

Surgery: repair of the TM perforation
Indications: recurrent infections, very big air-bone damage

- Tympanoplasty - repair of tympanic membrane and ossicles
- Myringoplasty - an operation performed to repair the tympanic membrane only.
- Tympano-Ossiculoplasty - an operation performed to eradicate disease in the middle ear cavity and to reconstruct the hearing mechanism.
- AA type: removal of cholesteatoma by mastoid operation.
- In TT type we start with conservative until the ear is dry then we do surgery. While in AA we do surgery

Treatment "Chronic suppurative otitis media with cholesteatoma"

Surgery (to eradicate the disease remove all the skin eating the bone) through mastoid then evaluate remaining bone and repair it

- Canal wall up (CWU): from behind, posterior canal intact. High recurrence from posterior canal residual but maintains cavity
    - complete mastoidectomy.
- Canal wall down (CWD): both canal & mastoid open. creates a big cavity with frequent visits for cleaning , avoid residual in posterior canal
    - Radical Mastoidectomy or modified radical mastoidectomy

CHOLESTEATOMA DIAGNOSIS

most important radiological assessment is CT-Scan "will not tell you if there is a cholesteatoma but will tell you if there is an opacity in this area", the only modality that can give you a diagnostic images of cholesteatoma is MRI with diffusion.

CHOLESTEATOMA

If you have discharge and perforation, the treatment is surgery.

Cholesteatoma Surgery: mastoidectomy

1. Simple (cortical, complete) mastoidectomy
2. Modified radical mastoidectomy: spares the ossicles, so we only clean the epitympanum.

3. Radical mastoidectomy: remove malleus, incus, mastoid. So we make the middle ear and the attic one cavity.

Labyrinthine fistula

- Mastoidectomy to remove the cholesteatoma +
- Tympanoplasty repair the fistula

Facial nerve paralysis

- Indication of surgery (Facial nerve decomposition): Acute and complete weakness.
- Remove the cause of compression “mostly cholesteatoma ” ASAP.
- Antibiotics and Steroids.
- Acute otitis media and acute mastoiditis: (cortical mastoidectomy +ventilation tube).
- Chronic otitis media with cholesteatoma: (mastoidectomy ± facial nerve decompression).

Mastoiditis

- Medical (no abscess): Hospitalize, IV antibiotics, Analgesics.
- Surgical (abscess) : Myringotomy, Cortical mastoidectomy (CWU). most cases we put tube because it continue draining and to avoid recurrence

Venous sinus Thrombosis diagnosis

- CT scan with contrast “filling defect”
- MRI - MRA (MR angiography) MRV (MR venography)
- Blood cultures is positive during the febrile phase

Venous sinus Thrombosis treatment

- Antibiotics and supportive
- Mastoidectomy with exposure of the affected sinus and the intra-sinus abscess is drained. if we see thrombus remove it

Otosclerosis

- Stapedectomy is a surgical procedure (if hearing aid did not work) in stapes is replaced with a small plastic tube of stainless-steel wire “prosthesis” to improve the movement of sound to the inner ear.
- Ossiculoplasty

Meniere's disease

- Medical (diuretics, trans-tympanic injection, anticholinergic, antihistamine, phenothiazine, benzodiazepines).
- First line -put ototoxic drugs like gentamicin to destroy and poison the damaged ear
- Second line - surgery - destroy the inner ear ; drill cochlea and nerve

Branchial fistula

- Surgical excision (step ladder incision)

- Investigation of choice - sinogram or fistulogram