Myringitis

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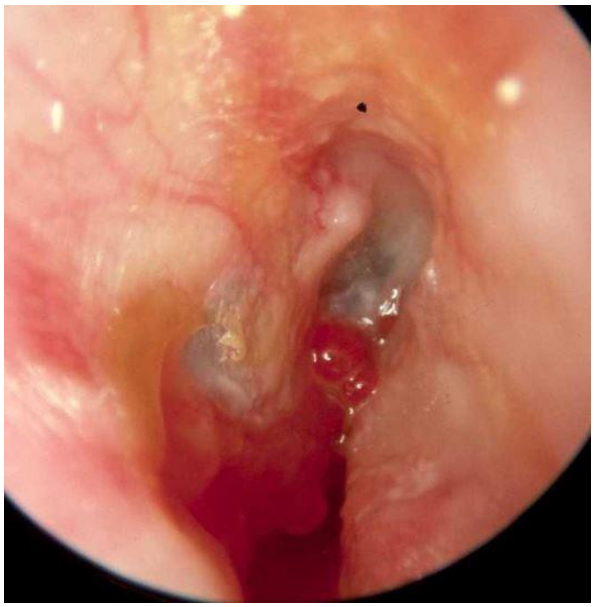
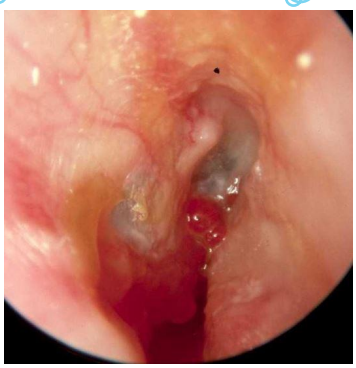


Introduction

Myringitis is inflammation of tympanic membrane. It can occur as either acute bullous myringitis or granular myringitis (which is chronic in nature). These two conditions remain as separate entities.

Myringitis involves lateral surface of ear drum without involvement of adjacent bony external auditory canal.



Myringitis can be acute or chronic. Bullous myringitis is acute
Granular myrintitis & eczematoid myringitis are chronic

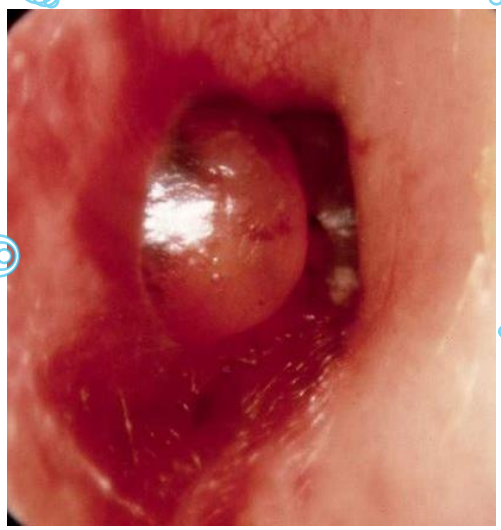
Symptoms of acute and chronic myringitis could be similar but management differs

Acute Bullous Myringitis

Bullae may be single/ multiple, may affect a segment or the whole of the ear drum. It can even spread to the adjacent external auditory canal

Acute inflammatory condition affecting the ear drum. It is characterized by the presence of bullae or vesicles on the surface of the ear drum.

This condition should be treated as a subtype of acute otitis media with heightened symptoms due to severity of the infection in the middle ear cleft.



This condition could occur in isolation or could be associated with external canal inflammation also

Occurs in 6% of children under the age of 2

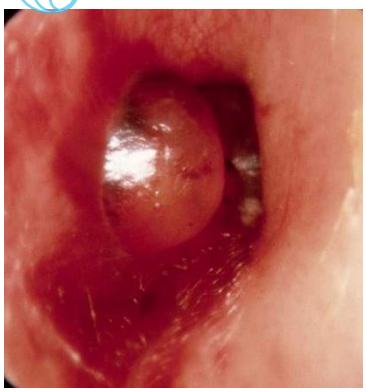
Pathophysiology

1. It is commonly associated with middle ear disease
2. There could be transient inner ear dysfunction in half of these patients
3. Mycoplasma pneumoniae (Eaton's agent) was initially widely implicated. Now it is found to be untrue
4. Streptococcus pneumoniae, H influenza and beta hemolytic streptococci have also been implicated

Presentation

Otalgia was severe in bullous myringitis
Child will be crying excessively
Child could be febrile
Mixed & sensorineural hearing loss
Complete recovery is the norm with / without treatment
Vertigo could also be present (ofcourse could be missed in young children)

Sudden onset of otalgia, unilateral
Associated with URI
Otalgia lasts for 48 hours
Discomfort could last even after rupture of bulla



Otoscopy reveals the presence of bulla

Sensorineural hearing loss is seen in nearly 80% of these children

Management

Use of nasal decongestants is controversial

Management

1. It is a self limiting disease
2. Symptoms can resolve with or without treatment
3. Analgesics - Topical local anesthetics can also be used
4. Since inner ear involvement is common broad spectrum antibiotics can be prescribed
5. Suddne onset of sensorineural hearing loss can be managed by oral steroids and carbogen if available.

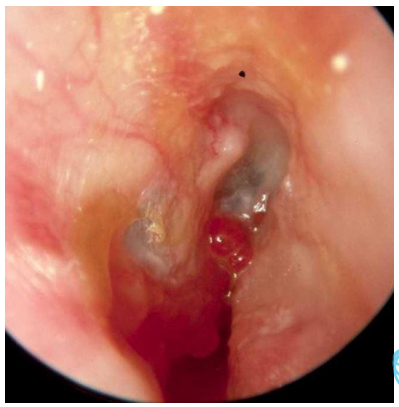
It takes nearly 5 weeks for middle ear effusion to subside

Myringotomy is reserved for refractory cases

Granular Myringitis

Synonyms include:
Chronic myringitis
Myringitis granulosa
Granular external otitis
Granulomatous myringitis

This is one of the most commonly encountered condition in OPD. It is characterised by chronic painless otorrhea in the presence of granular areas over the ear drum.

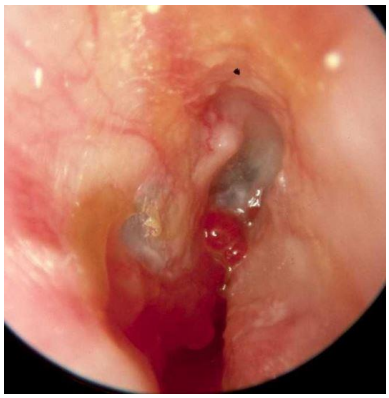


There is de-epithelialization of the outer squamosal layer of the ear drum and replacement with granulation tissue. There is no middle ear disease

Etiology

Histology:
Oedematous granulation tissue with capillaries and diffuse infiltration of chronic inflammatory cells

Etiology - Unknown
Repeated trauma to ear drum could cause this
Repeated attempts at cleaning the ear
Previous surgery



The following organims were grown in culture:
Staph aureus
Corynebacterium
Proteus mirabilis

Non specific injury to lamina propria such as trauma / infection may impair epithelialization and promote granulation tissue formation. There is high incidence in patients who have undergone myringoplasty.

Clinical Presentation

Microsuction to remove secretions
Granulation/polyp replacing normal squamous epithelium
Thickened ear drum
Posterosuperior segment of the ear drum is affected

Persistent inflammation confied to squamous layer of ear drum
Persistent / recurrent painless otorrhoea (foul smelling)
Intrameatal itch
Fullness of ear
Mild conductive hearing loss
Otalgia (rare)

Presentation

If not treated properly it could lead to canal stenosis

Can affect both the ears

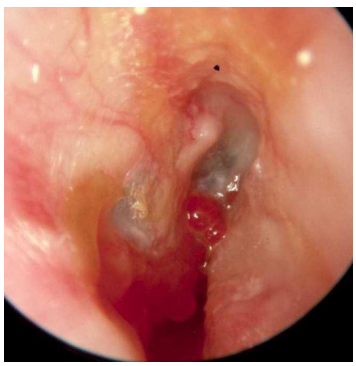
PTA/Tympanometry may help to identify associated hearing loss or middle ear pathology.
CT scan of temporal bone may exclude underlying middle ear/ mastoid disease.
Biopsy to exclude malignancy should be considered if otalgia is severe

Grade I - Focal de-epithelization
Grade II - Focal polypoid granulations
Grade III - Diffuse polypooid formation over the entire ear drum
Grade IV - Granulations can also involve external auditory canal

Management of Bullous Myringitis

Topial antibiotic and antifungals
Steroid / antiinflammatory agent
Topical antiseptic agents : acetic acid, aluminium acetate, phenol, hydrogen peroxide
Debulking of granulations by curettage/ silver nitrate cautery/ laser debridement
Surgical excision with grafting using temporalis fascia/perichondrium.

Meticulous mopping of ear canal to remove the secretions



Castellani solution: can be used topically
4.5 g phenol
10 g resorcinol
5 ml acetone
0.3 basic fuchsin
80% ethanol
85.6 ml distilled water

Recurrence rate is also high