

**MASARYKOVA  
UNIVERZITA**

**MUNI**  
**MED**

# Chronic otitis media

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# Definition

- Irreversible changes of the middle ear
- Permanent or intermittent ear discharge
- usually eardrum perforation
- Conductive hearing loss
- Changes in temporal bone CT scans

- Poor function of ET leads to chronic otitis media
- TRUE
- FALSE

**Permanent ET dysfunction leads to:**  
Middle ear underpressure (tympanometry C), high risk of AOM  
mukocilliar transport malfunction  
structural changes of:  
eardrum (atrophy, calcification)  
-middle ear mucosa (**mucosal gland formation**)

myringorupture, otorrhea  
**Chronic otitis media mesotympanalis**

Fluid in the middle ear,  
Compact eardrum  
**Chronic Otitis media with effusion (OME)**

Retraction pocket filled with epidermis  
**Chronic Otitis media cum cholesteatomatae**

Retraction pocket,  
adhesion to ossicles or promontorium  
**Chronic adhesive Otitis media (cum ossitide)**

– Poor function of ET leads to chronic otitis media

– TRUE

# Chronic OM mesotympanalis

## – Clinic:

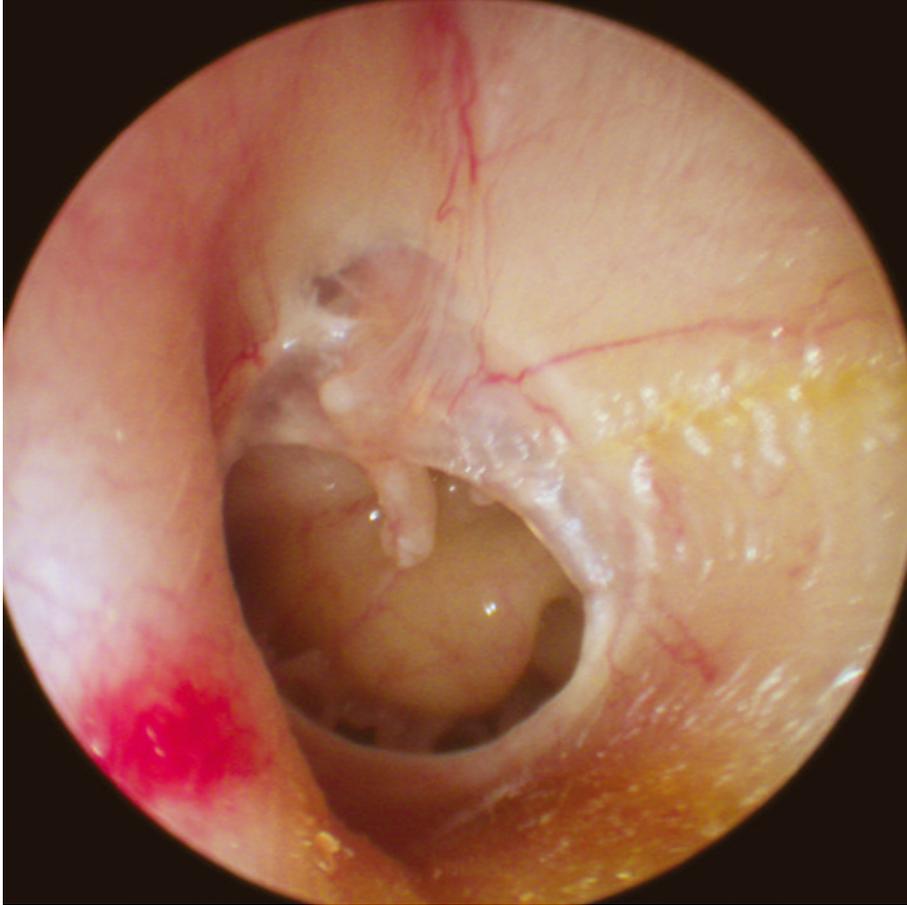
- Central myringorupture
- Reccurent otorrhea
- Conductive hearing loss

## – Bacteriology:

- Escherichia coli
- Pseudomonas aeruginosa
- Proteus vulgaris.....

## – Therapy:

- Middle ear lavage, ATB drops
- Surgical: myringoplasty



Otitis media with effusion is presented by perforation of eardrum, at least 3 month.

TRUE

False

# Chronic OM with effusion - definition

- Effusion (various physical characteristics) behind compact eardrum at least 3 months.

# Chronic OME

## – Clinic:

- Initially asymptomatic (liquid fluid)
- conductive hearing loss (viscous fluid)
- tinnitus
- recurrent AOM

# OME- diagnosis

- **Otoscopy:**
  - Initially normal eardrum
  - **Usually pulled**, yellowed or bluish eardrum without light reflex
  - **later** atrophy or calcification of eardrum, retraction pocket
- **Tympanometry:**
  - Type B
  - Type C
- **Pure tone audiometry:**
  - Initially normal hearing (liquid fluid)
  - Conductive hearing loss (viscous fluid)

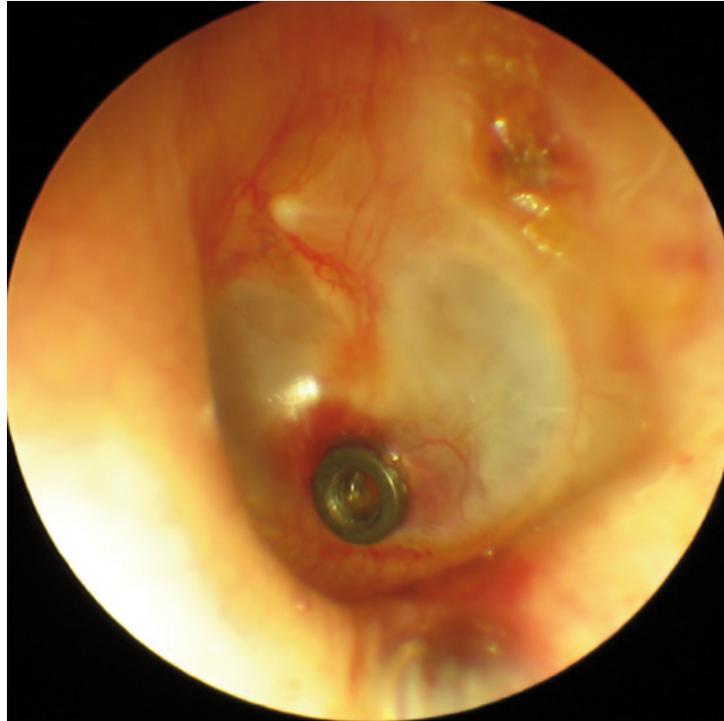




Michael Saunders FRCS

# OME - therapy

- **watchfull waiting** for 3 month
  - Chewing-gum
  - antihistaminics, local corticoids-only allergy
- **Surgical:**
  - **Improvement of nasal patency** (adenoidectomy, nasal polyps, cave tumor of nasopharynx!!)
  - **Fluid aspiration or VT** insertion.



# VT indications

- OME persisting 6 month or more
- OME with conductiv hearing loss upon 35 dB
- Retraction pocket
- Kraniofacial deformities (cleft palate)
- Reccurent AOM
- Tympanoplasty
- Hyperbaric chamber
- Serious visual defect



Otitis media with effusion is presented by perforation of eardrum at least 3 month.

False

Otitis media with effusion is presented by effusion behind compact eardrum at least 3 month

# Chronic adhesive OM

- **Definition:** adhesion between the eardrum, ossicles or promontorium, with ossicles destruction due to blood vessels lesions.
- **Symptoms:** conductive hearing loss
- **Therapy:** tympanoplasty



Cholesteatoma can be local destructive, it can damage bone, affects N.VII, cochlea, spreads into brain, and causes meningitis or abscess

TRUE

FALSE

# Chronic OM with cholesteatoma

- Definition:

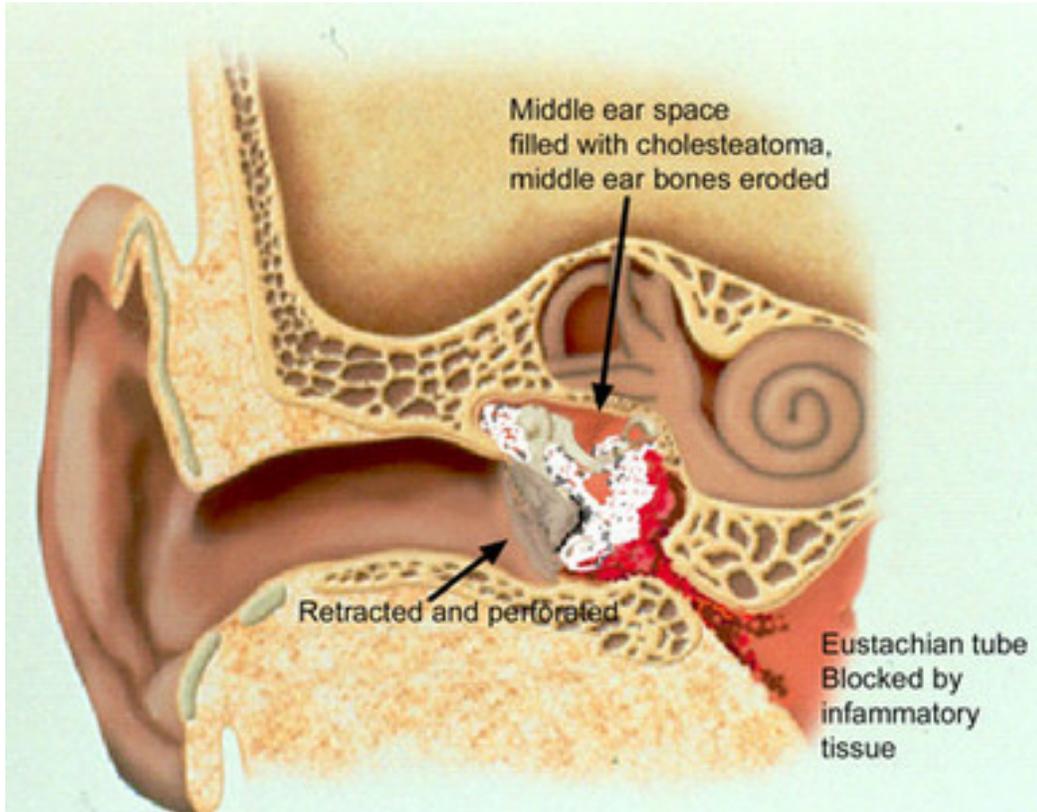
- Epidermal epithelium presence in middle ear cavity

- Acquired (99%)

- Inborn (1%)

- Theory of acquired cholesteatoma:

- Retraction pocket of eardrum (middle ear cavity underpressure due to ET dysfunction)



Inborn

(intact eardrum)

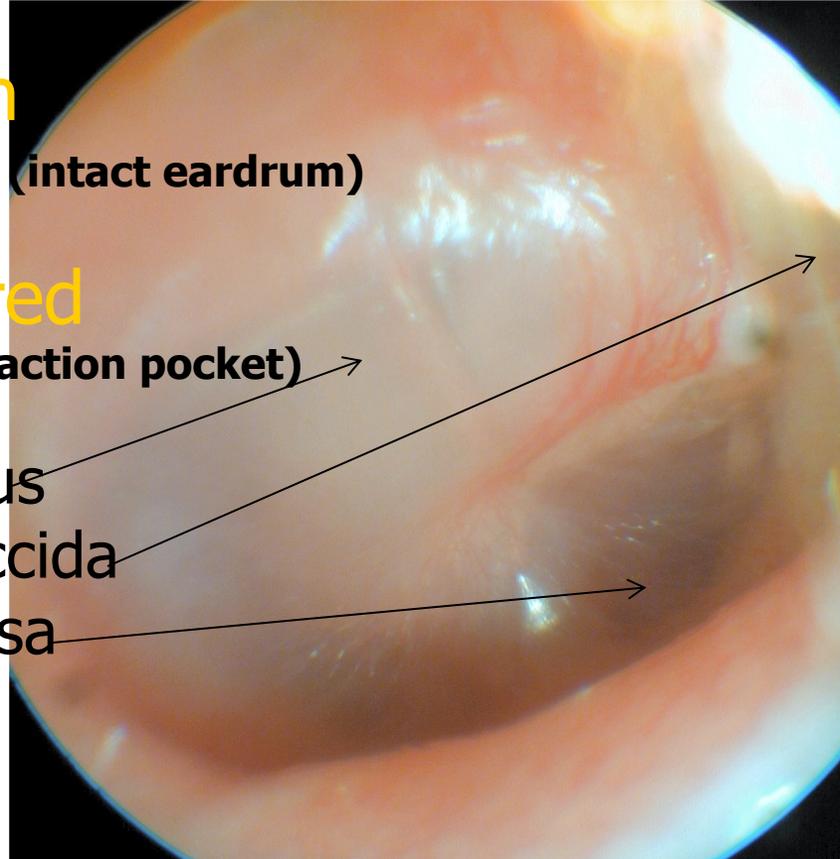
Acquired

(retraction pocket)

Sinus

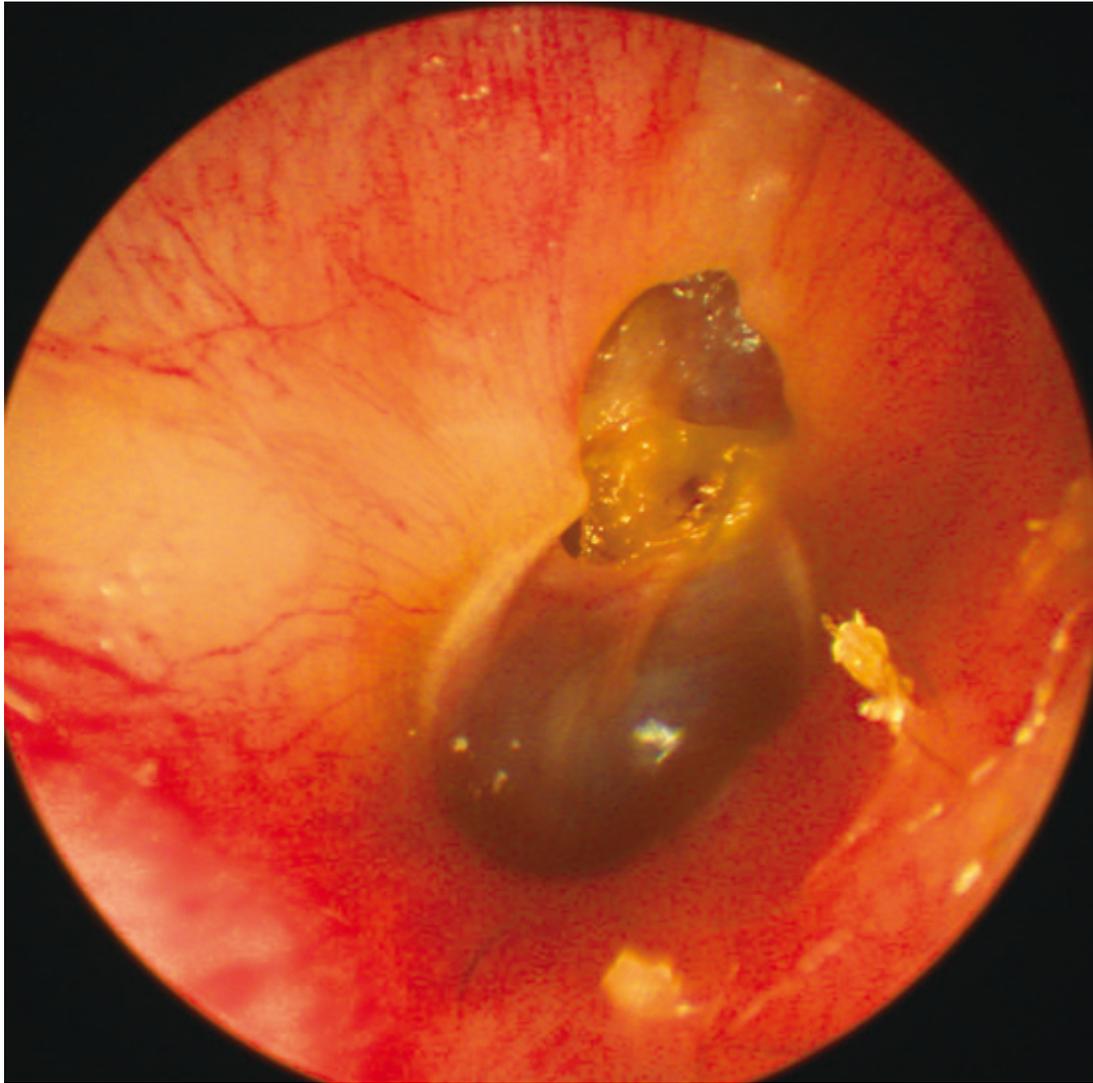
Flaccida

Tensa



# Cholesteatoma – symptoms

- Bone destruction (ossicles, lateral semicircular canal, mastoid process, base of the skull)
- Smelling otorrhea
- Hearing loss (conductive or mixed)
- Tinnitus
- Vestibular symptoms: (lateral semicircular canal fistula)
- Tympanometry – nonspecific
- HRCT: temporal bone destruction





Cholesteatoma can be local destructive, it can damage bone, affects N.VII, cochlea, spreads into brain, and causes meningitis or abscess

TRUE

It is possible choose between conservative and surgical treatment of choelsteatoma

TRUE

FALSE

# Surgery

## Attikotomy

small cholesteatoma, retraction pocket – endaural approach

- Canal wall up mastoidectomy
- OMCH with intermittent discharge
- Thick impairment of antrum and attic
- Wealthy pneumatization
- Correct function of ET
- Could save eardrum and ossicles
- Canal wall down mastoidectomy
- Extensive impairment
- Poor pneumatization
- Infratemporal or intracranial complications
- ET malfunction
- Fail of canal wall up mastoidectomy



# Middle ear reconstruction (tympanoplasty)

- **Myringoplasty:** usually implant made from tragus or posterior wall of pinna cartilage (eardrum)
- **Tympanoplasty:**
  - plastic or metal implant (ossicles)
  - implant made from tragus or posterior wall of pinna cartilage (eardrum)





It is possible choose between conservative and surgical treatment of choelsteatoma

**FALSE**

**Remember -only surgery**