

Is that a cholesteatoma, or what?

Tim Hullar, MD

- Staff Surgeon, Division of Otolaryngology-Head and Neck Surgery
- Research Investigator, NCRAR
- VA Portland Medical Center

VA



**U.S. Department
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Veterans Health
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NCRAR

NATIONAL CENTER FOR REHABILITATIVE AUDITORY RESEARCH

Cholesteatoma

- Definition
 - “Epidermal inclusion cysts of the middle ear”
 - Have nothing to do with cholesterol
 - Are essentially skin in the wrong place

 - “Epidermoid” is the same thing, except form during development around the brain

Manifestations of cholesteatoma

- Usually not painful
- Draining ear (pus, foul smelling)
- Itchy
- Hearing loss

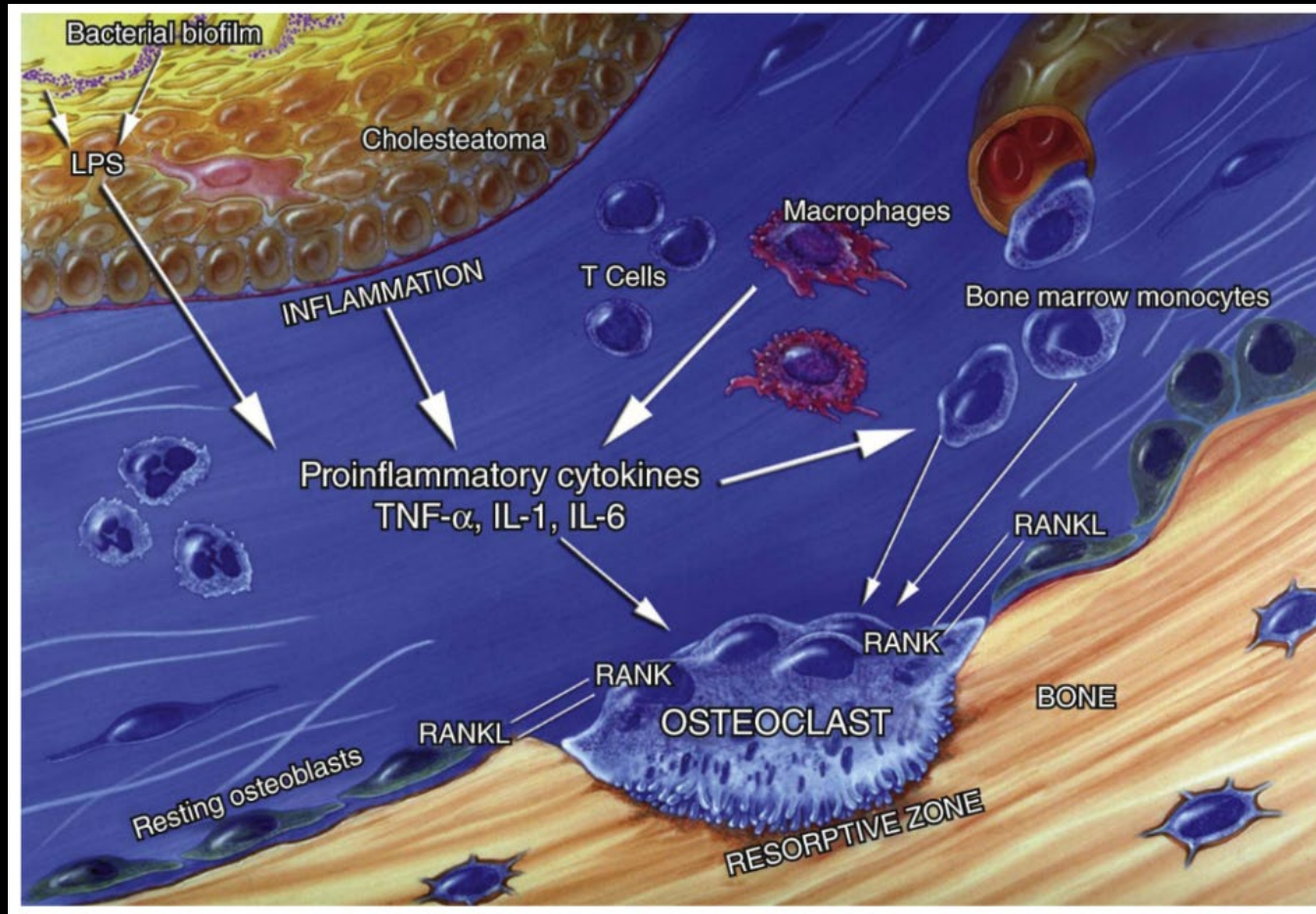
- Dizziness

- Meningitis
- Brain abscess (seizure, stroke, death)

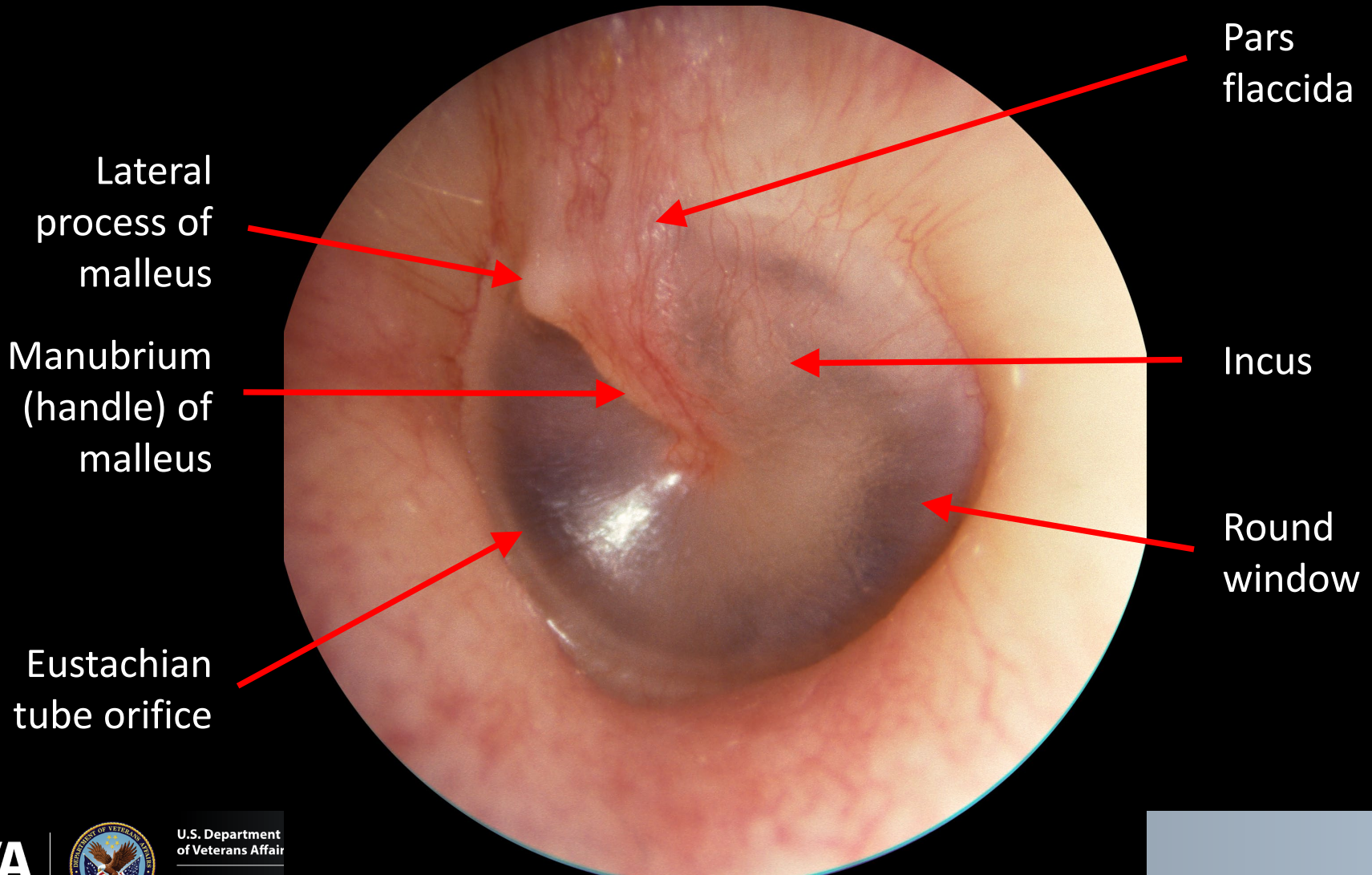
Types of cholesteatoma

- Congenital
 - Born with it; defect of development
 - Rarest
- Primary acquired
 - Most common
 - Usually due to Eustachian tube dysfunction
 - Arises from retraction pocket
- Secondary acquired
 - Iatrogenic; secondary to perforation

Pathogenesis of cholesteatoma

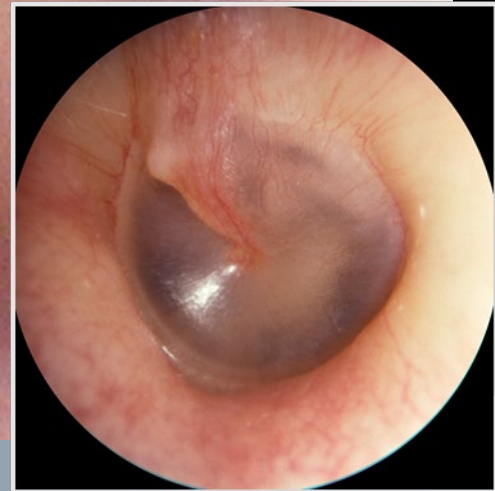
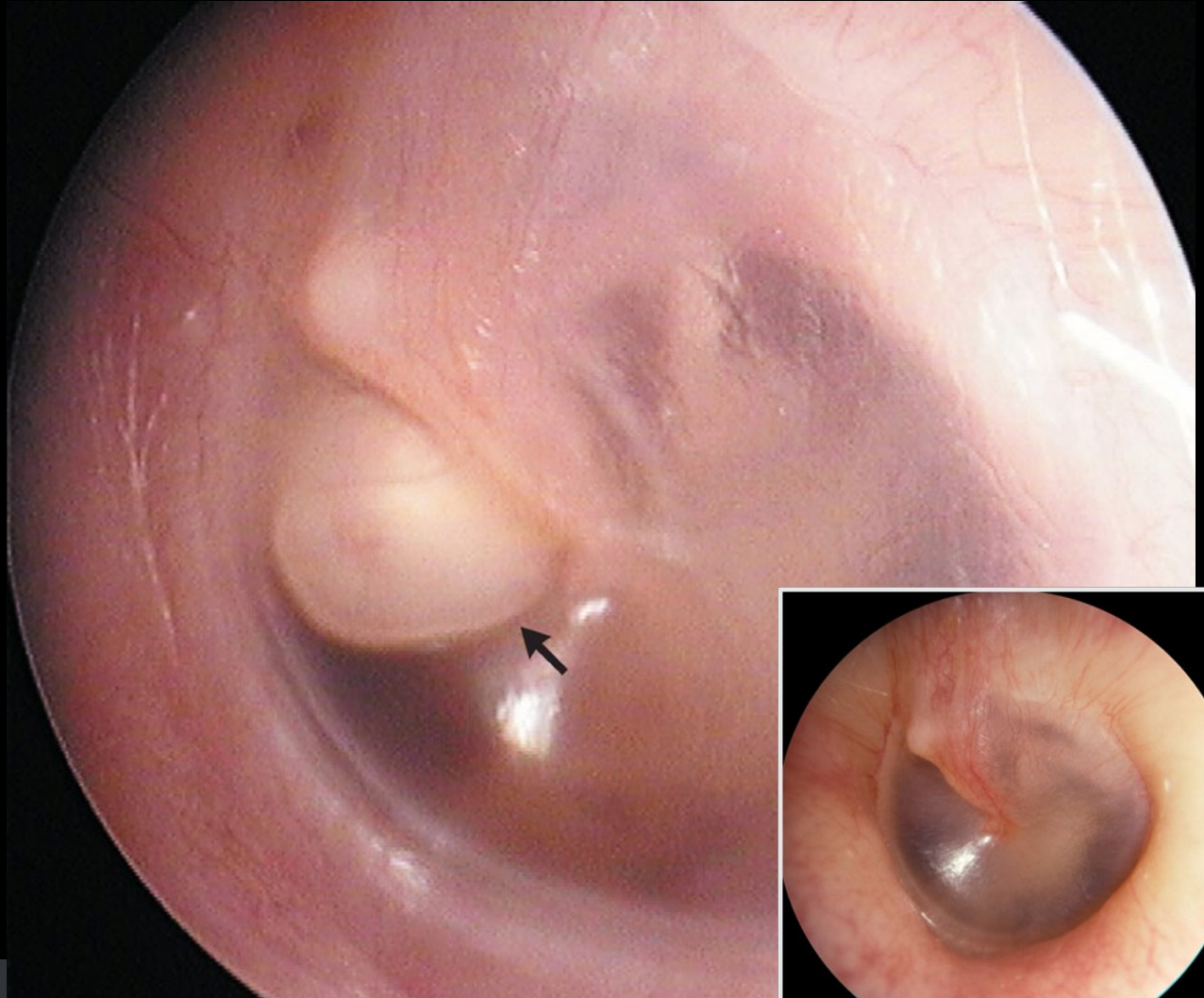


Normal anatomy



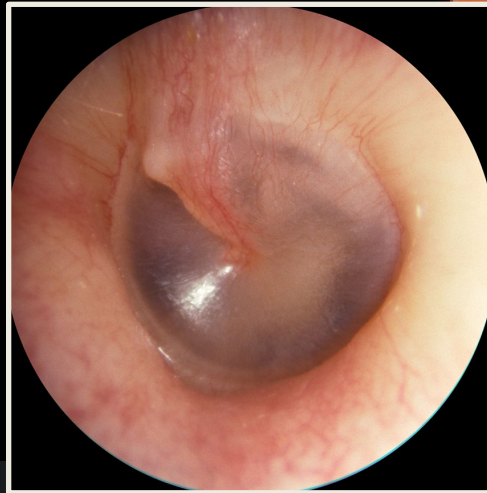
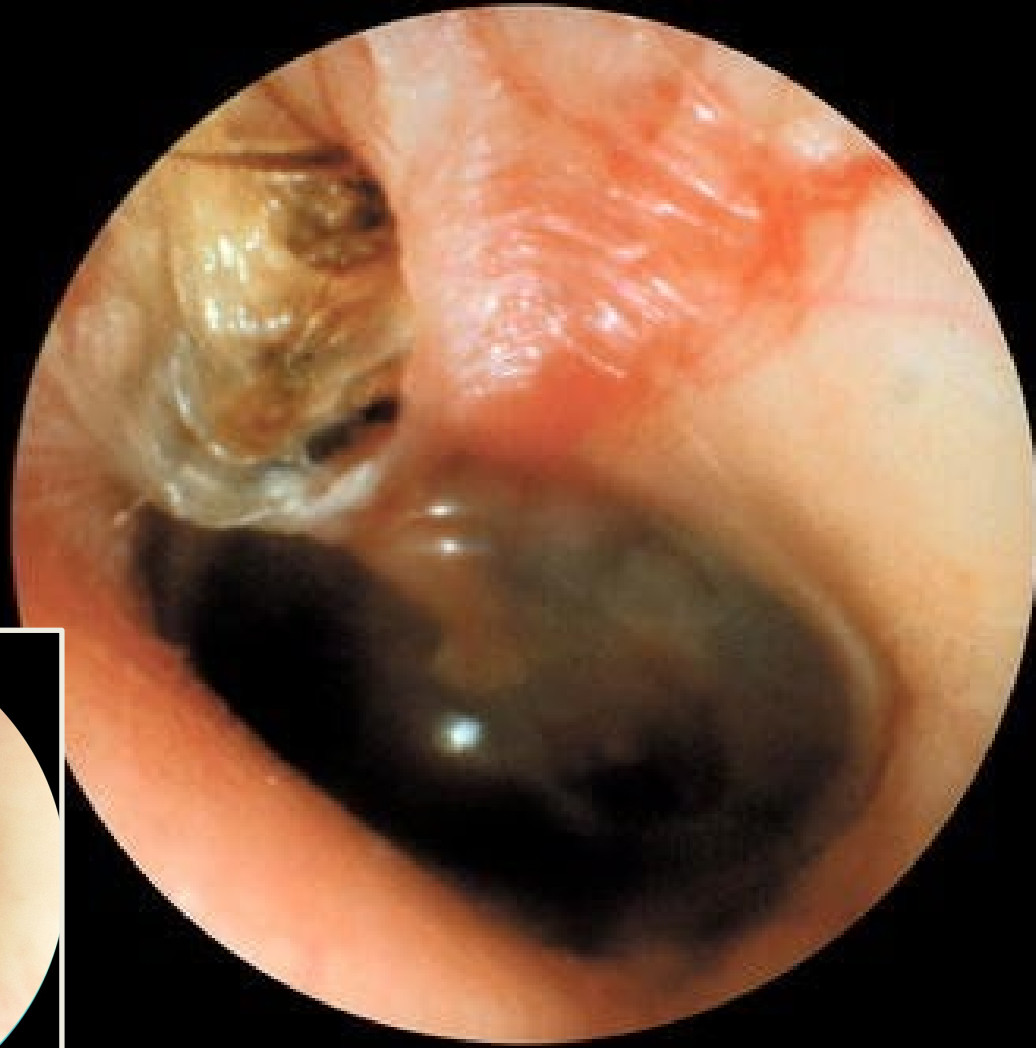
Congenital

- Pearly mass behind intact eardrum
- Begins in antero-superior quadrant

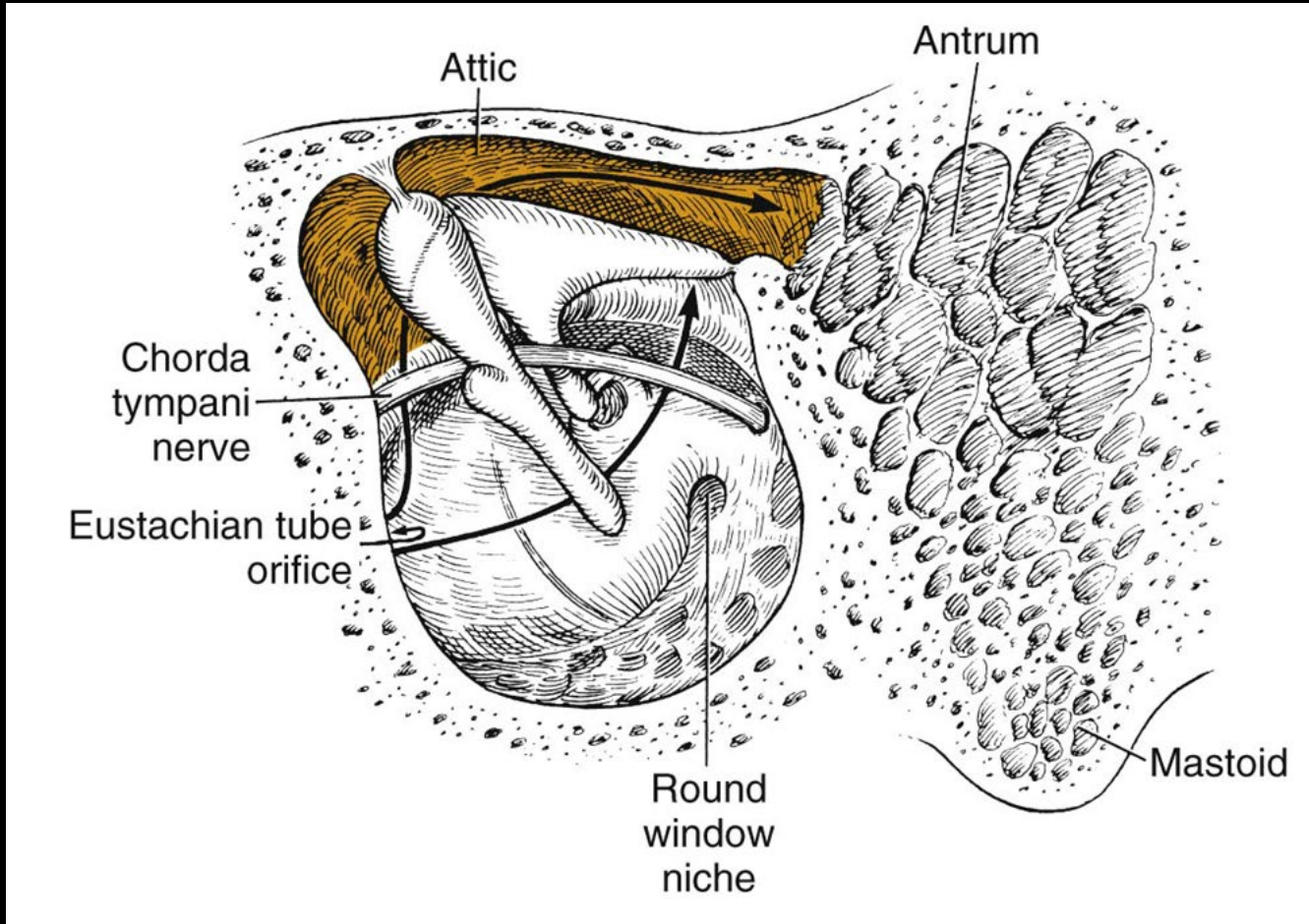


Primary acquired

- Usually begins in pars flaccida, adjacent to lateral process of the malleus.
- Often erodes bone

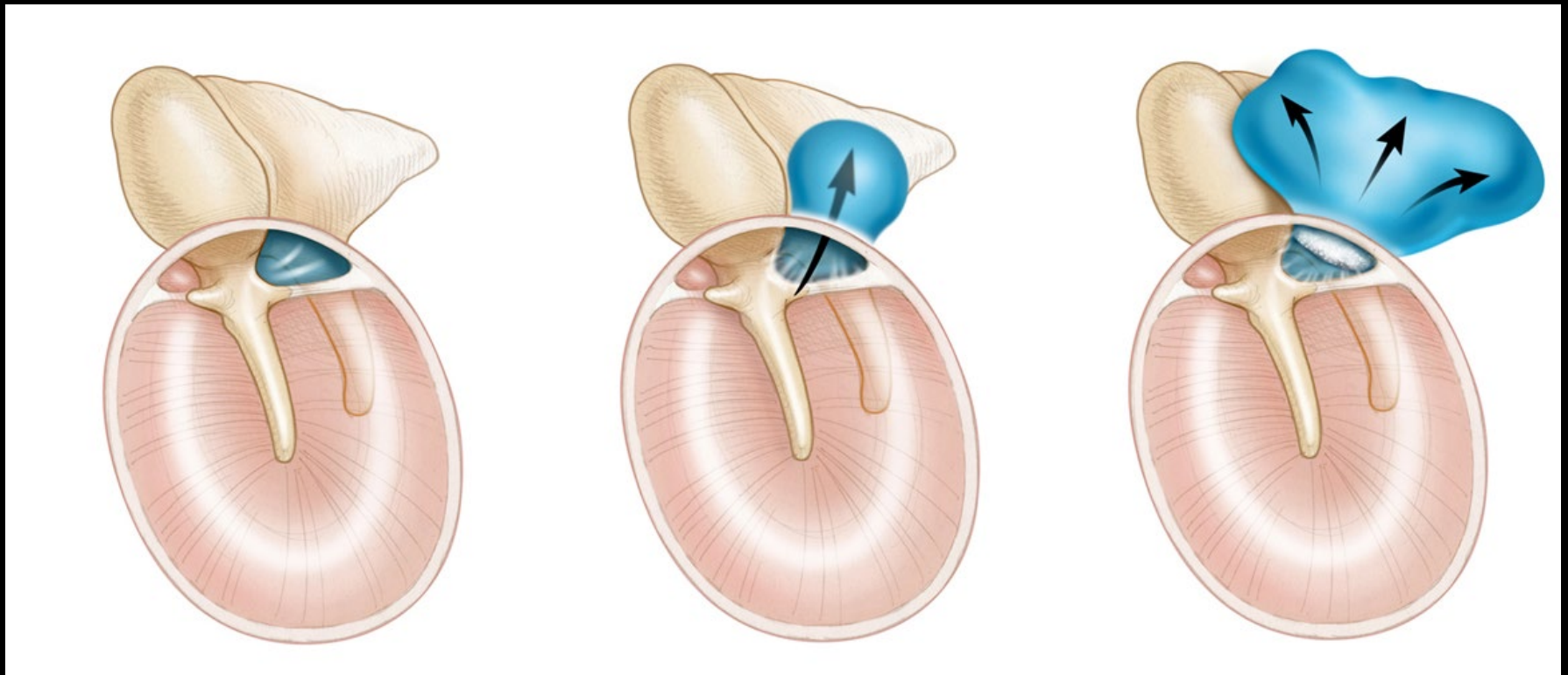


Eustachian tube ventilation



Primary acquired cholesteatoma

Also called an “attic” cholesteatoma



Risk factors for primary acquired cholesteatoma

- Parents with Eustachian tube dysfunction
- History of middle ear disease
- Exposure to allergens, smoke
- Previous cholesteatoma

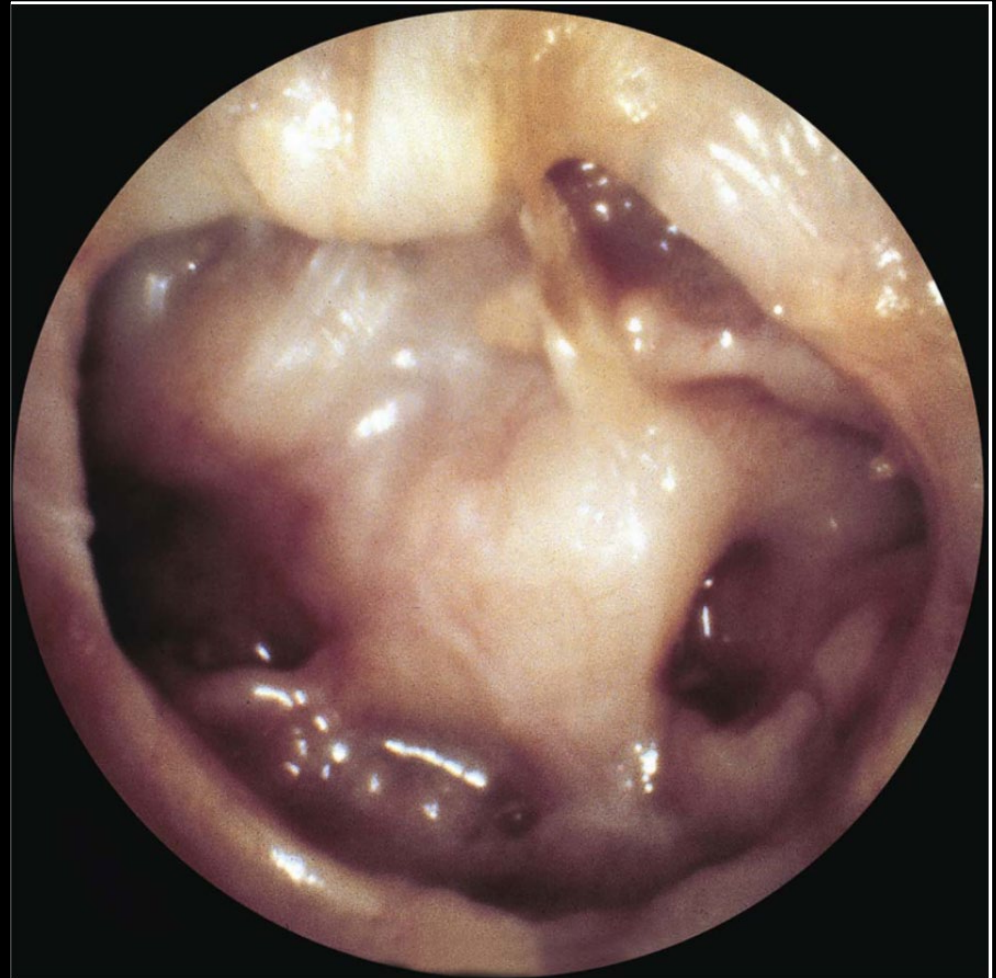
Primary acquired

- Attic cholesteatoma
 - Significant scutal erosion with squamous tissue



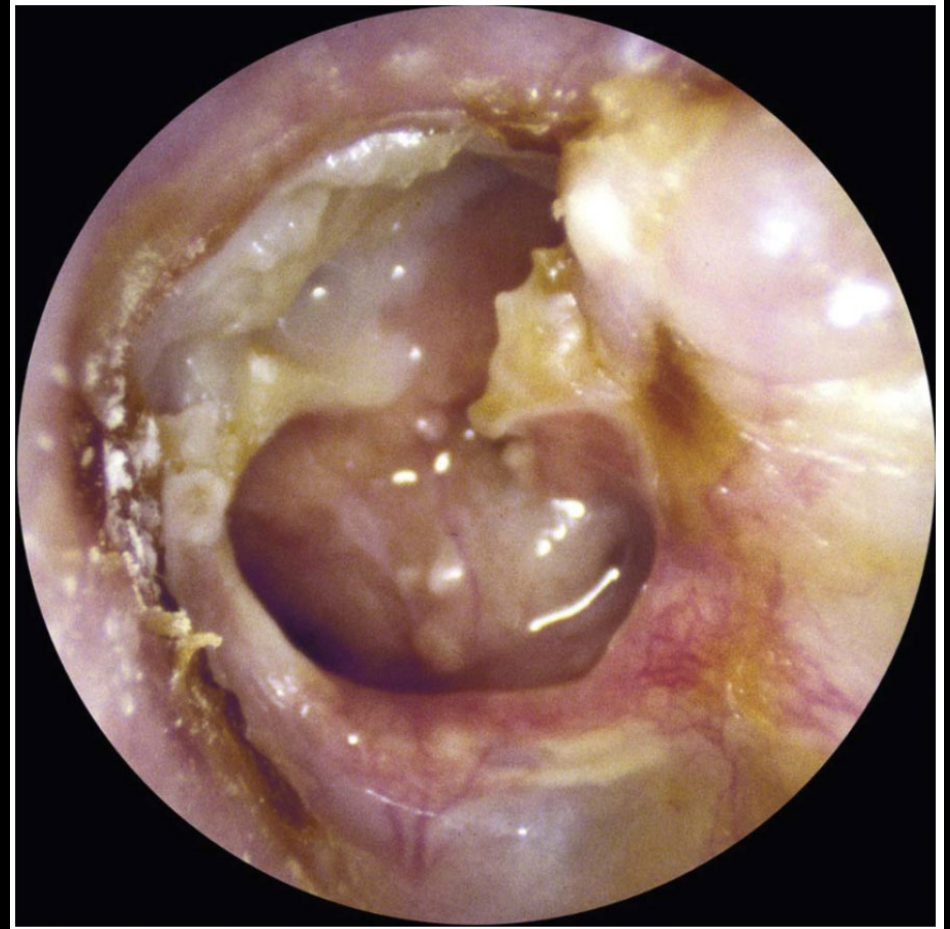
Primary acquired

- Complete atelectasis of the middle ear space
 - Scutal and ossicular erosion with retraction pockets



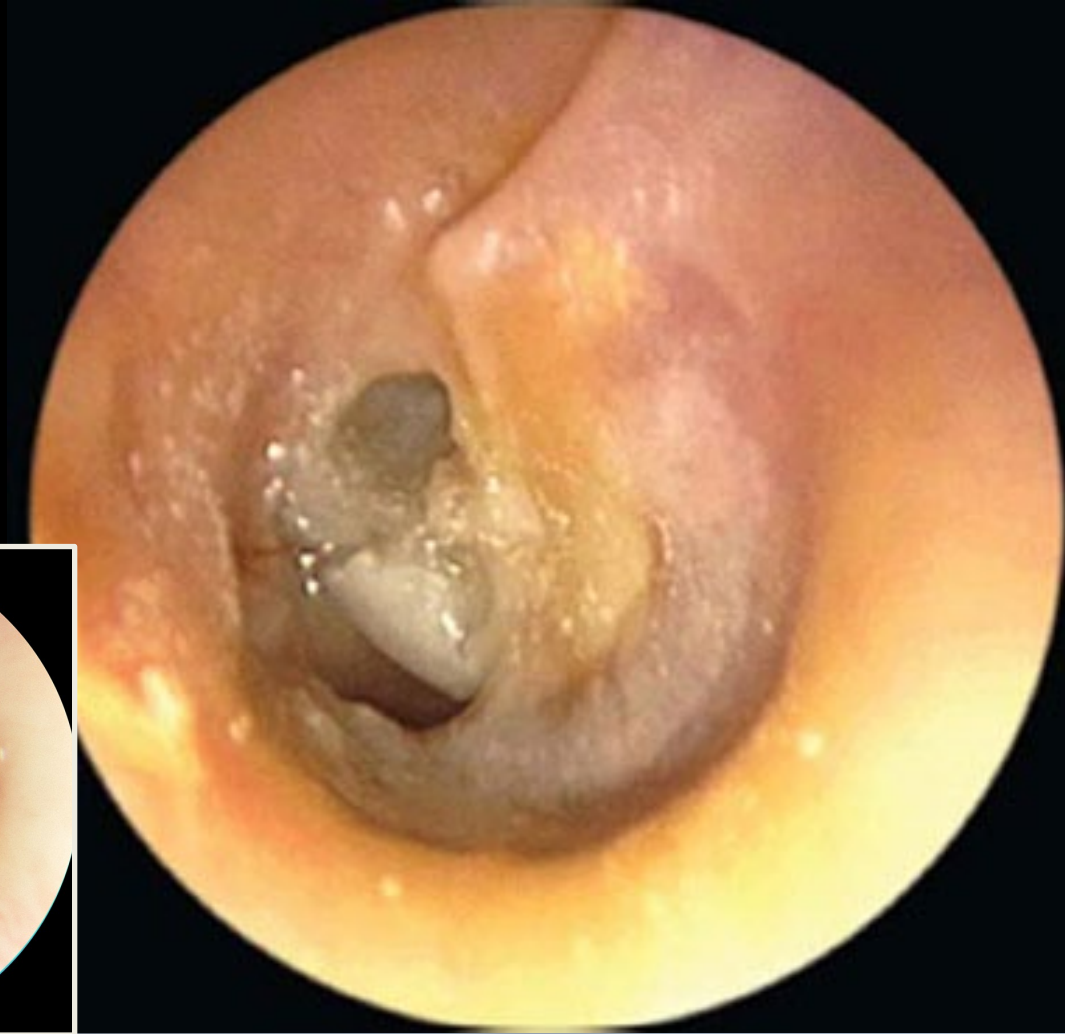
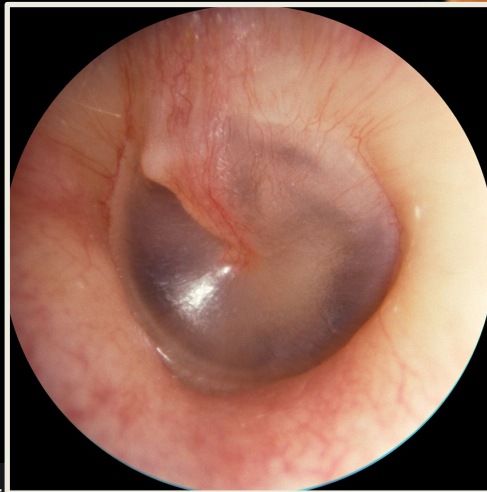
Primary acquired

- Advanced attic cholesteatoma
 - Much squamous debris
 - Complete loss of ossicles (lateral process of malleus may be present)



Secondary acquired cholesteatoma

- No attic retraction pocket
- Commonly occurs after a PE tube, blast



Cholesteatoma?



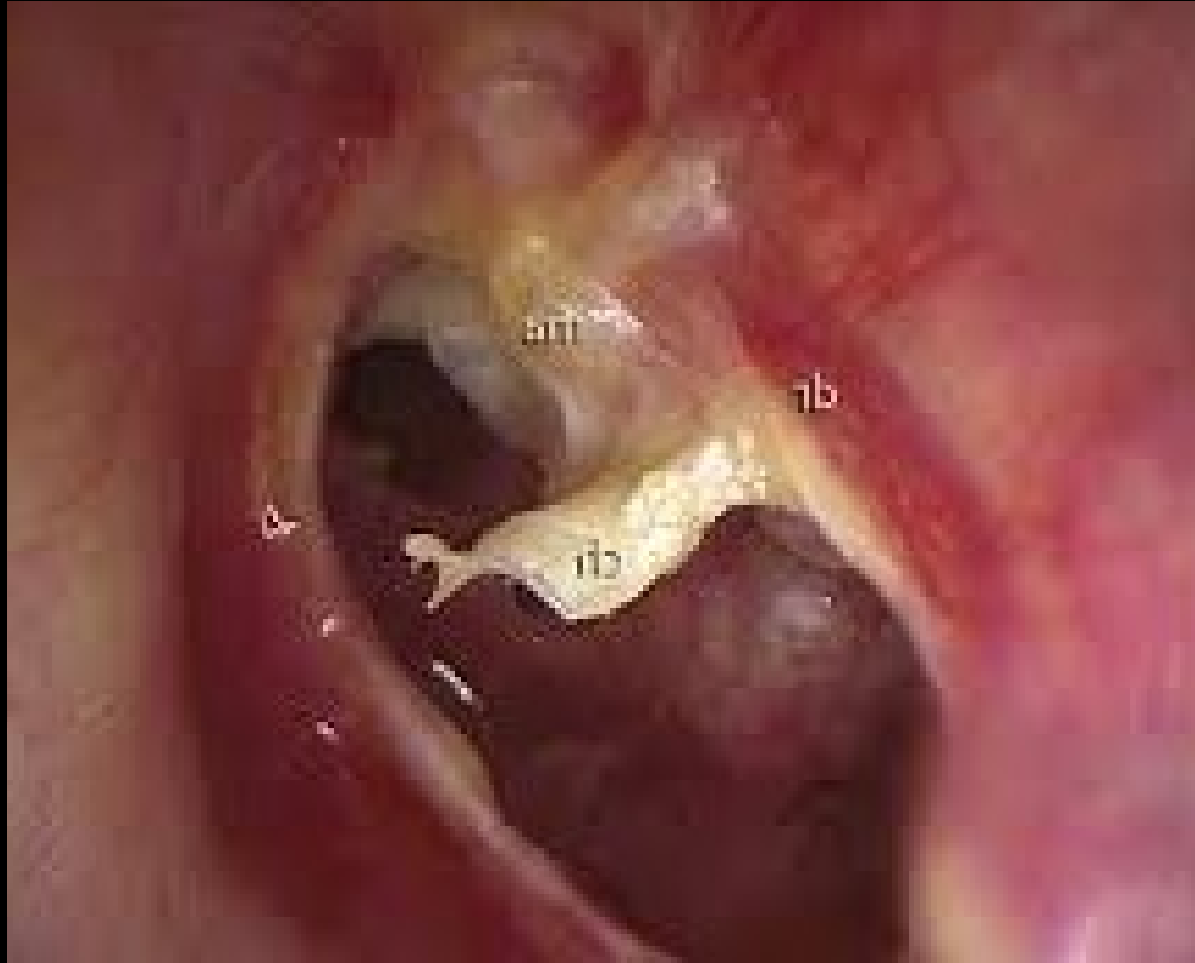
Cartilage graft and myringosclerosis

Cartilage graft

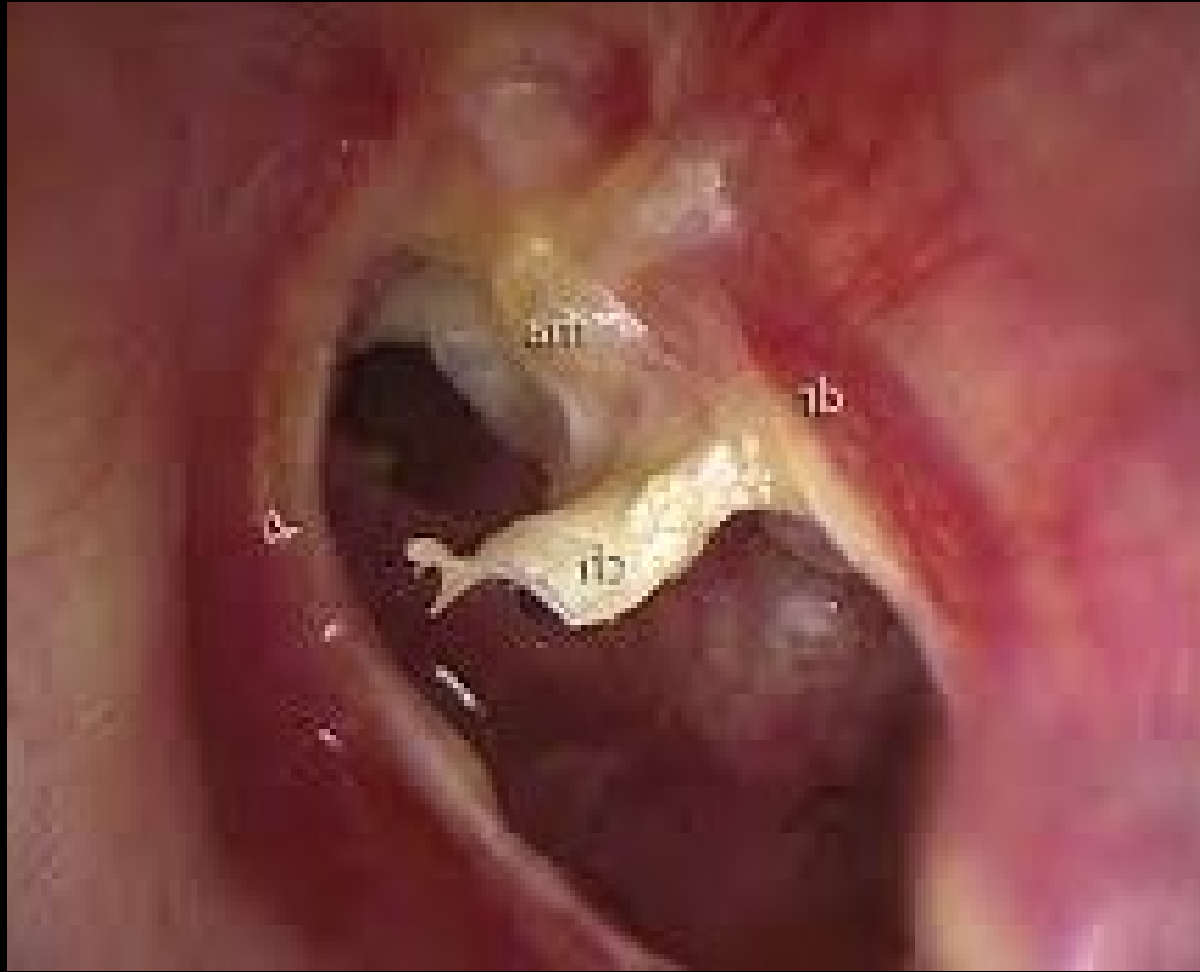
- Exact same color as cholesteatoma
- Drum usually smooth over it
- Can see sharp edges
- History of surgery



Cholesteatoma?



Secondary acquired



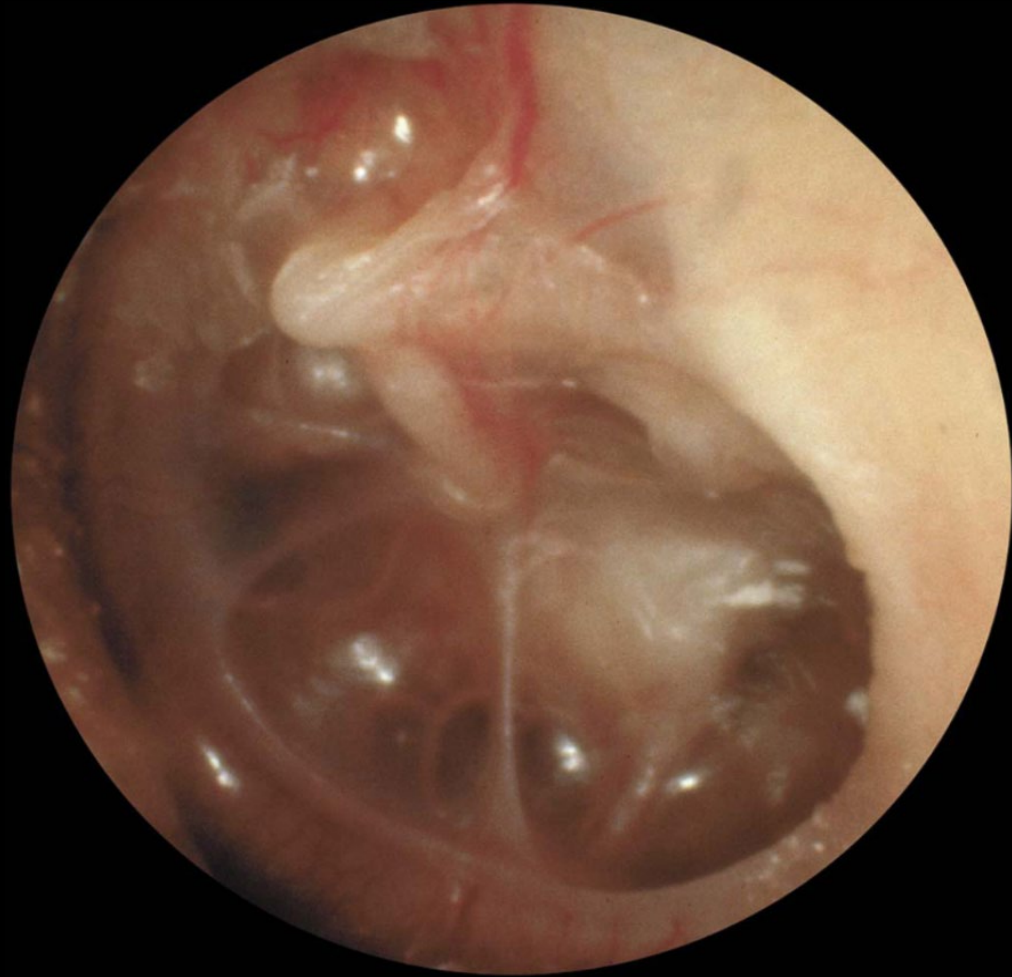
Cholesteatoma?



Primary acquired

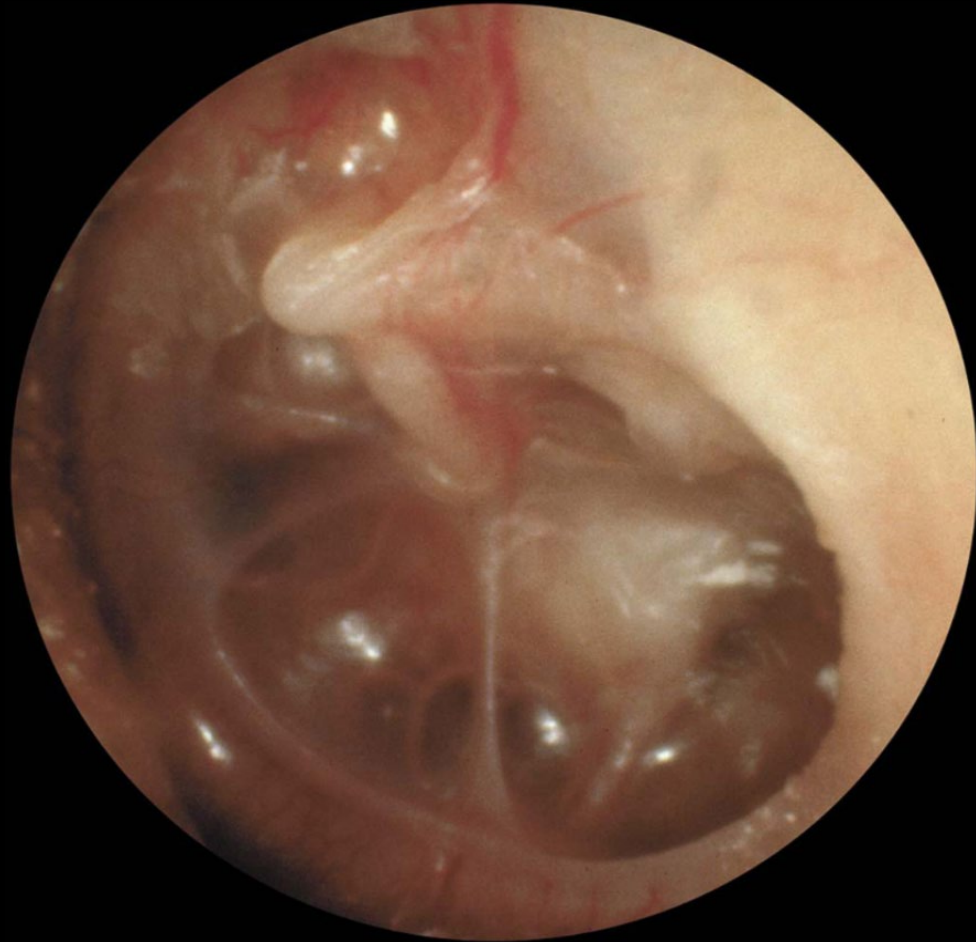


Cholesteatoma?

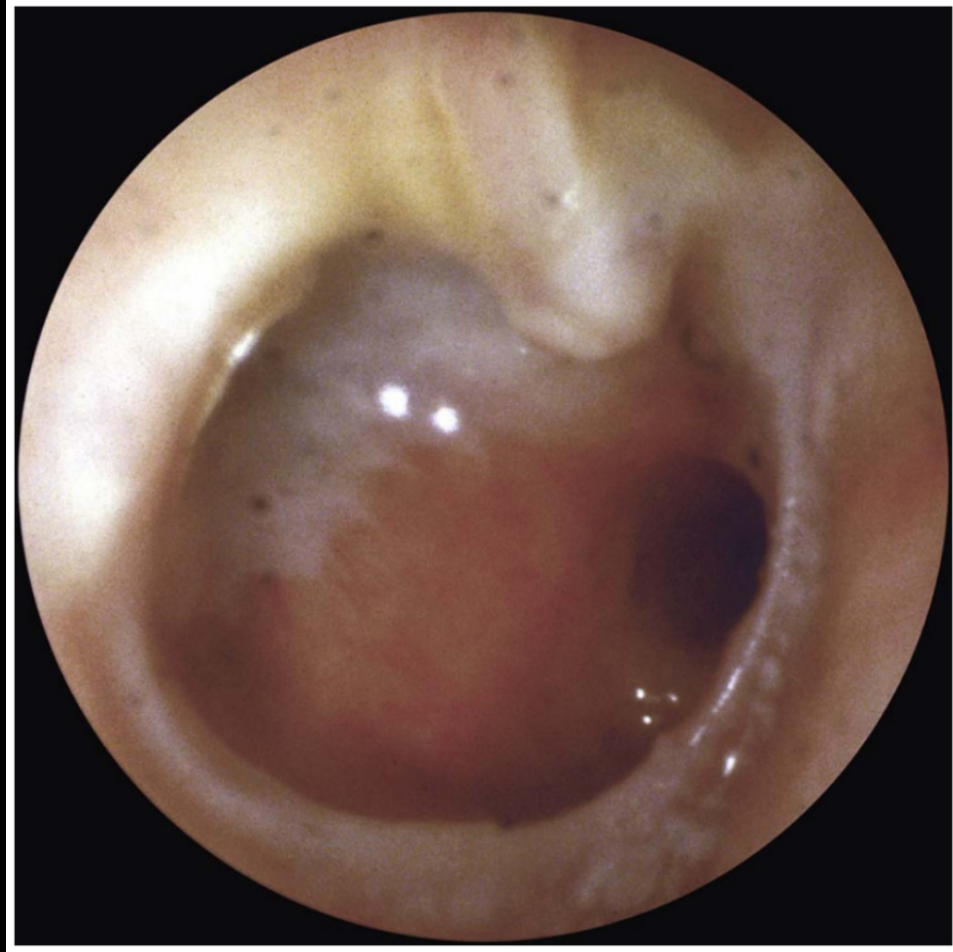


Middle ear atelectasis; atrophic drum

- Dry
- Often fluid behind
- No perforation

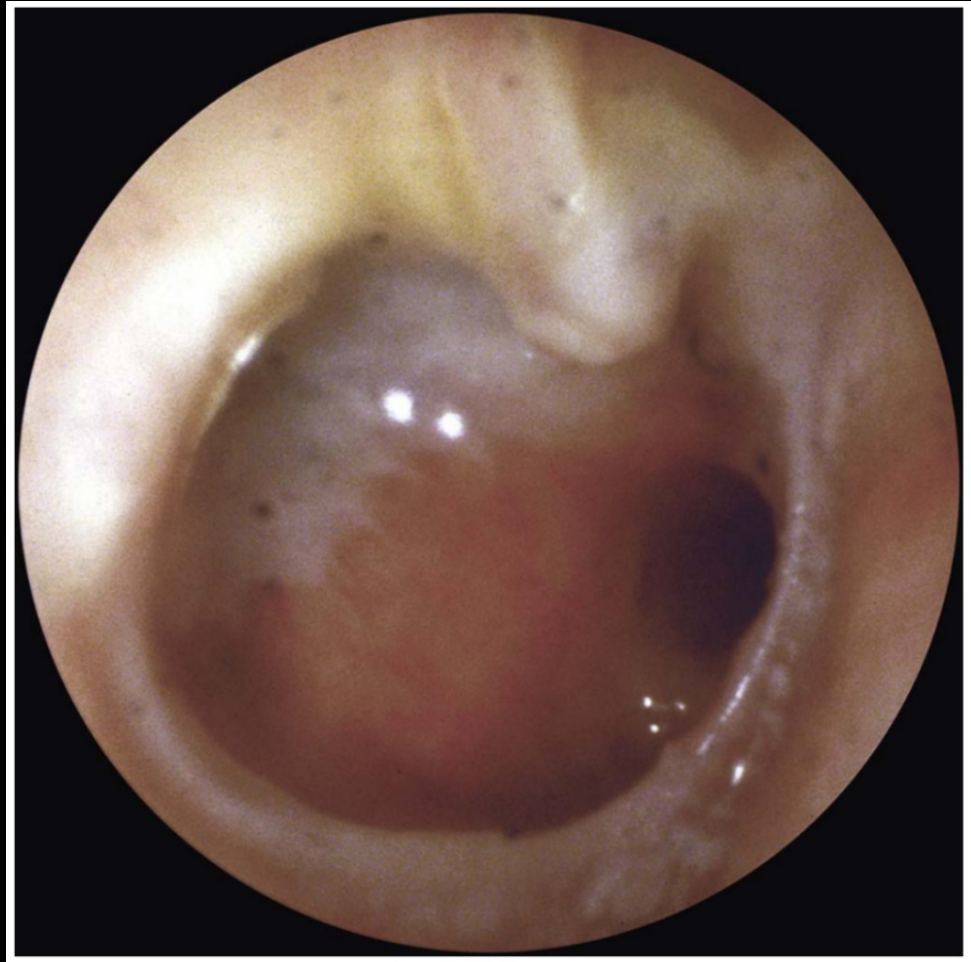


Cholesteatoma?



Perforation with chronic inflammation

- Perforation with chronic inflammation
 - Smooth
 - Featureless
 - No squamous debris
 - More wet than dry



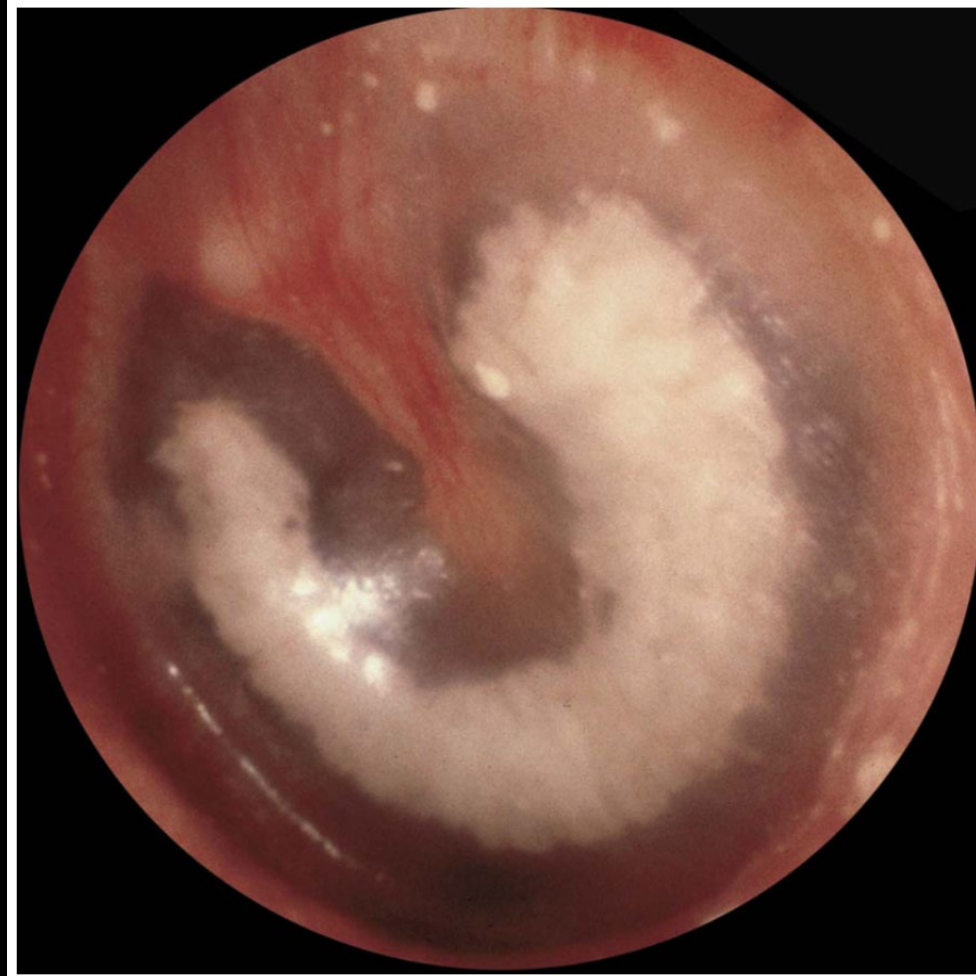
Cholesteatoma?



A two-fer: Primary AND secondary

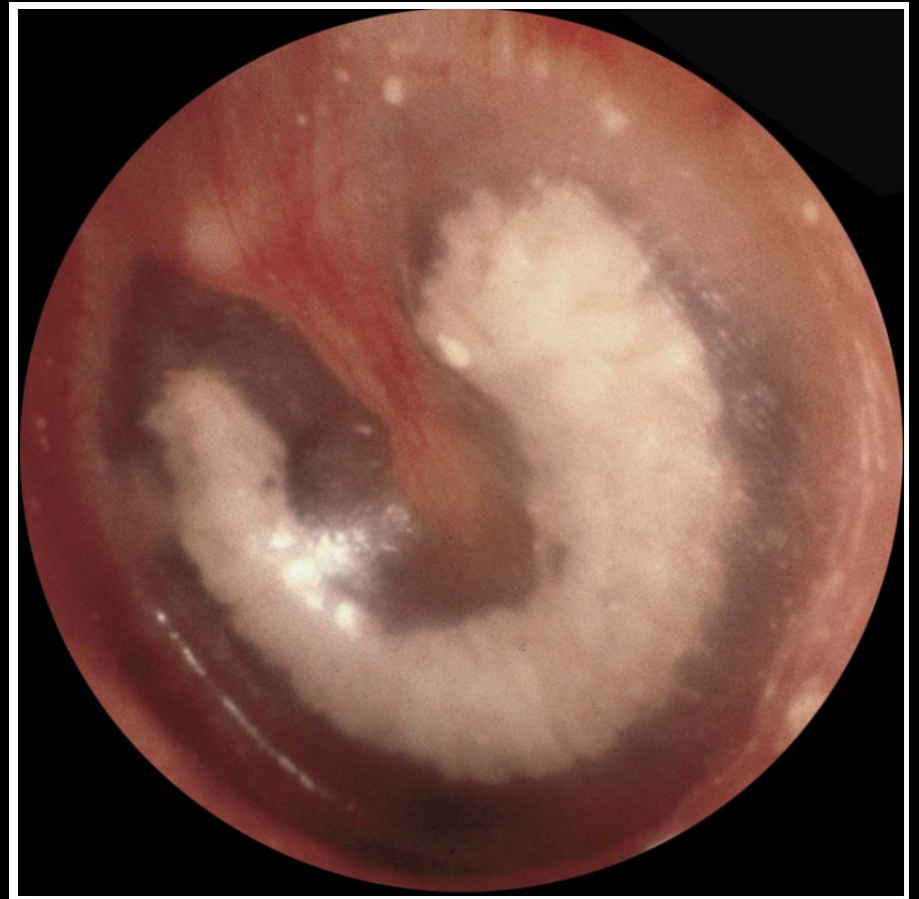


Cholesteatoma?



Tympanosclerosis

- Tympanosclerosis
- Granular
- Within drum
- Normal shape drum (no retraction)
- Centered on drum



Cholesteatoma?



Exostosis

- Bony masses
- In external canal
- Can create a canal
cholesteatoma



Cholesteatoma?



“Keratin pearl” usually postop



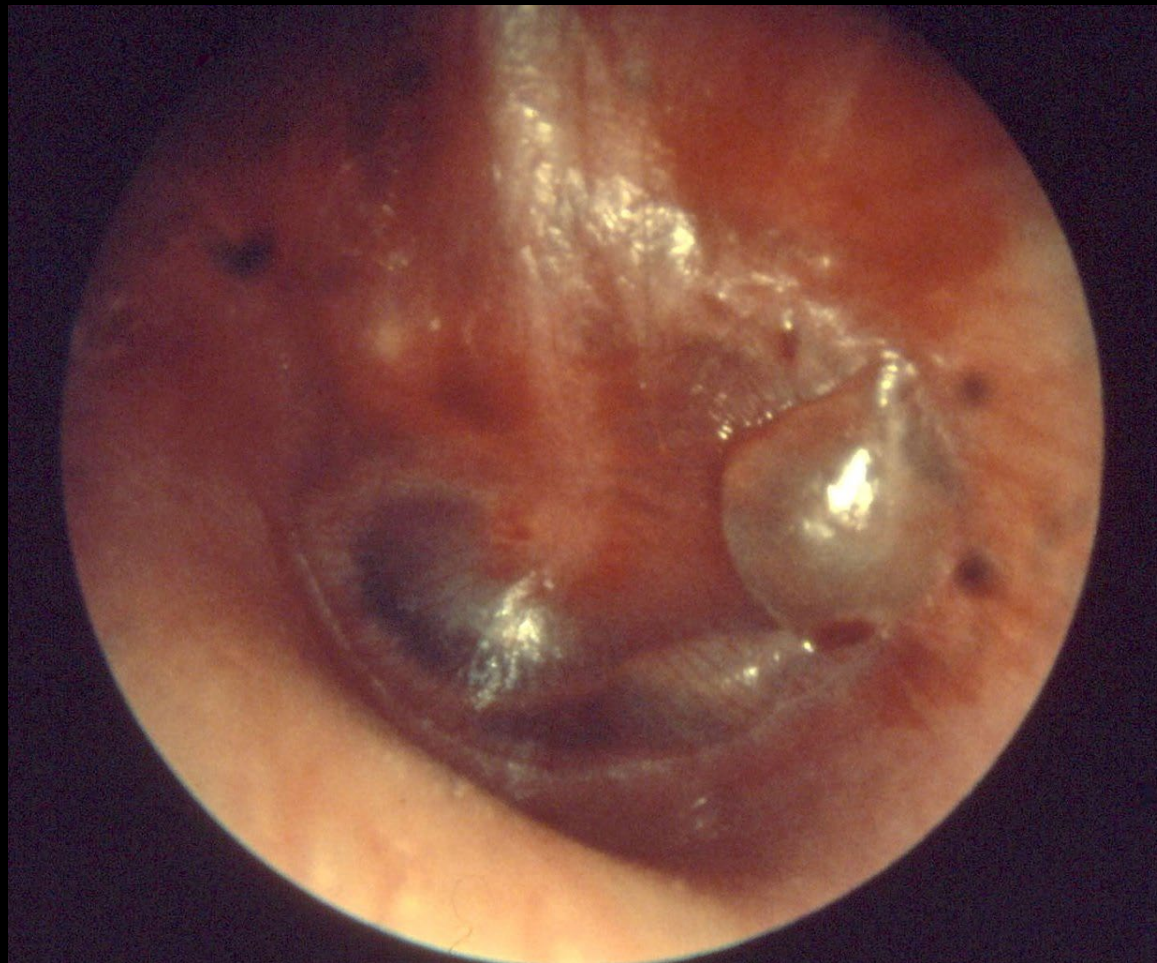
Cholesteatoma?



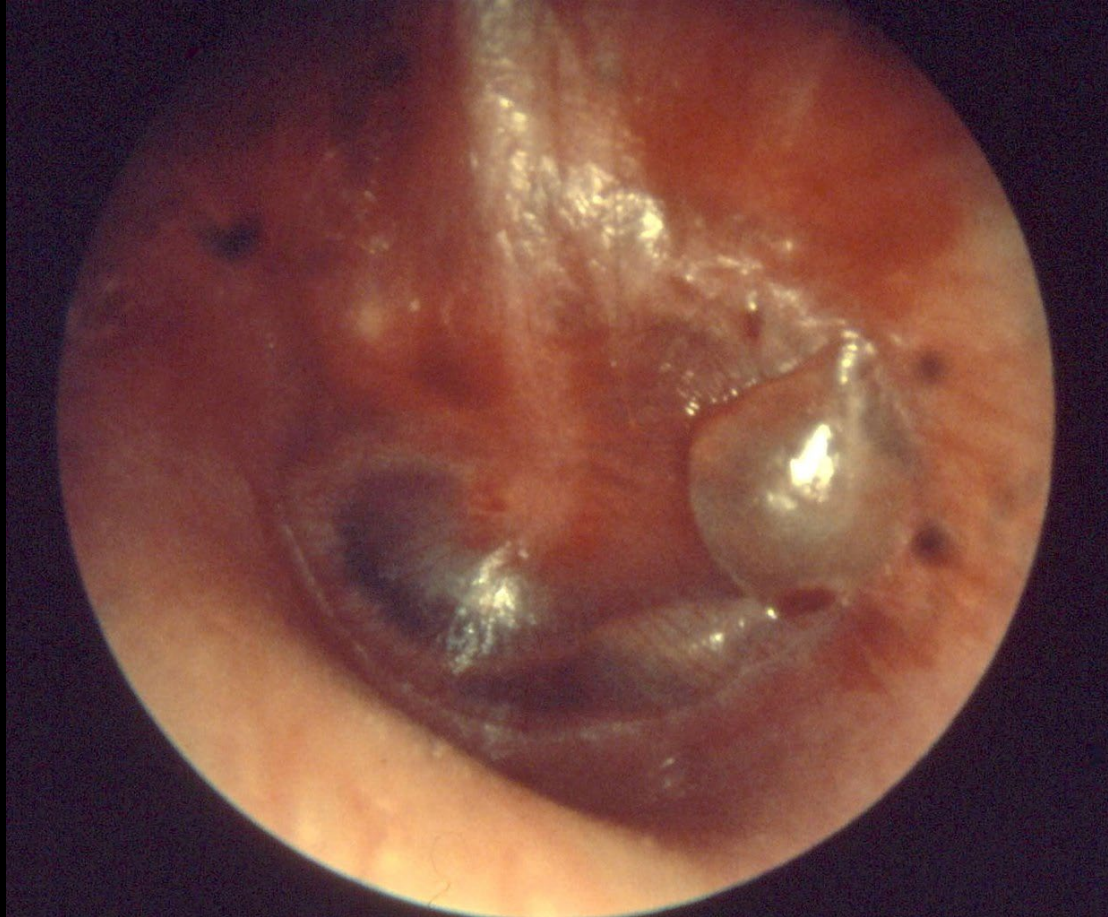
Glomus tympanicum



Cholesteatoma?



Bullous myringitis



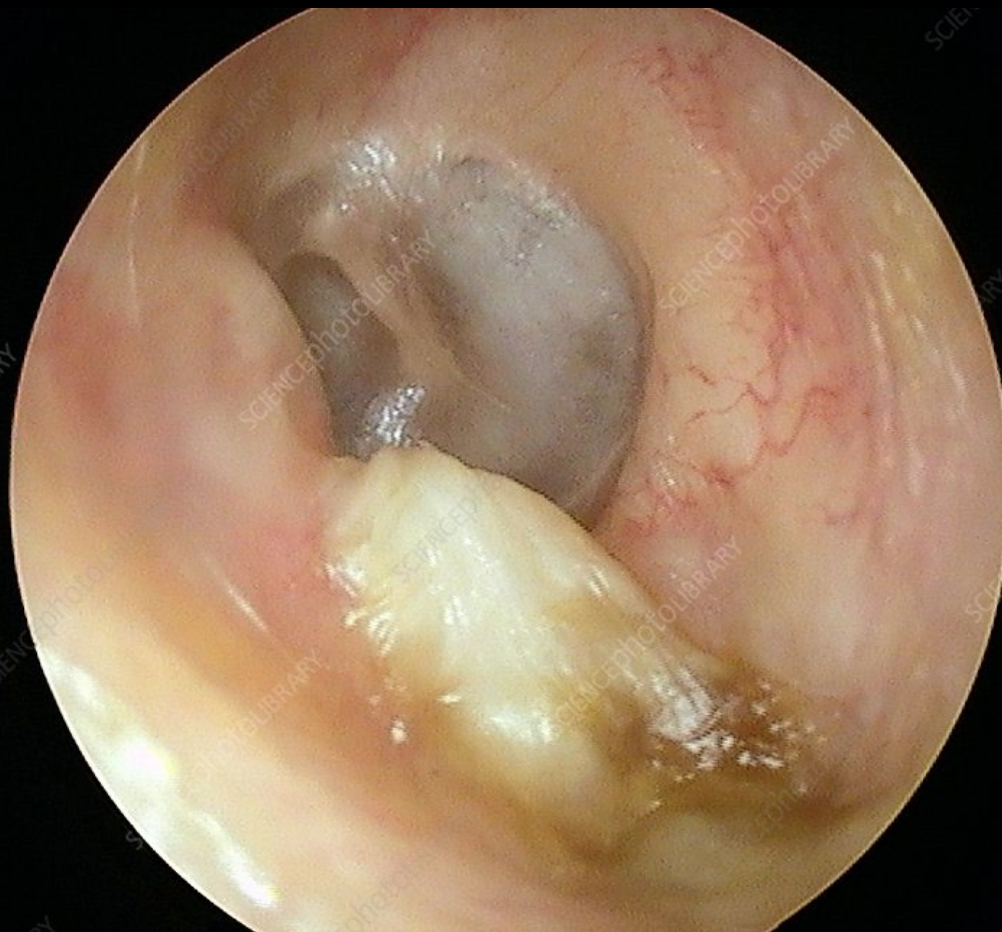
Cholesteatoma?



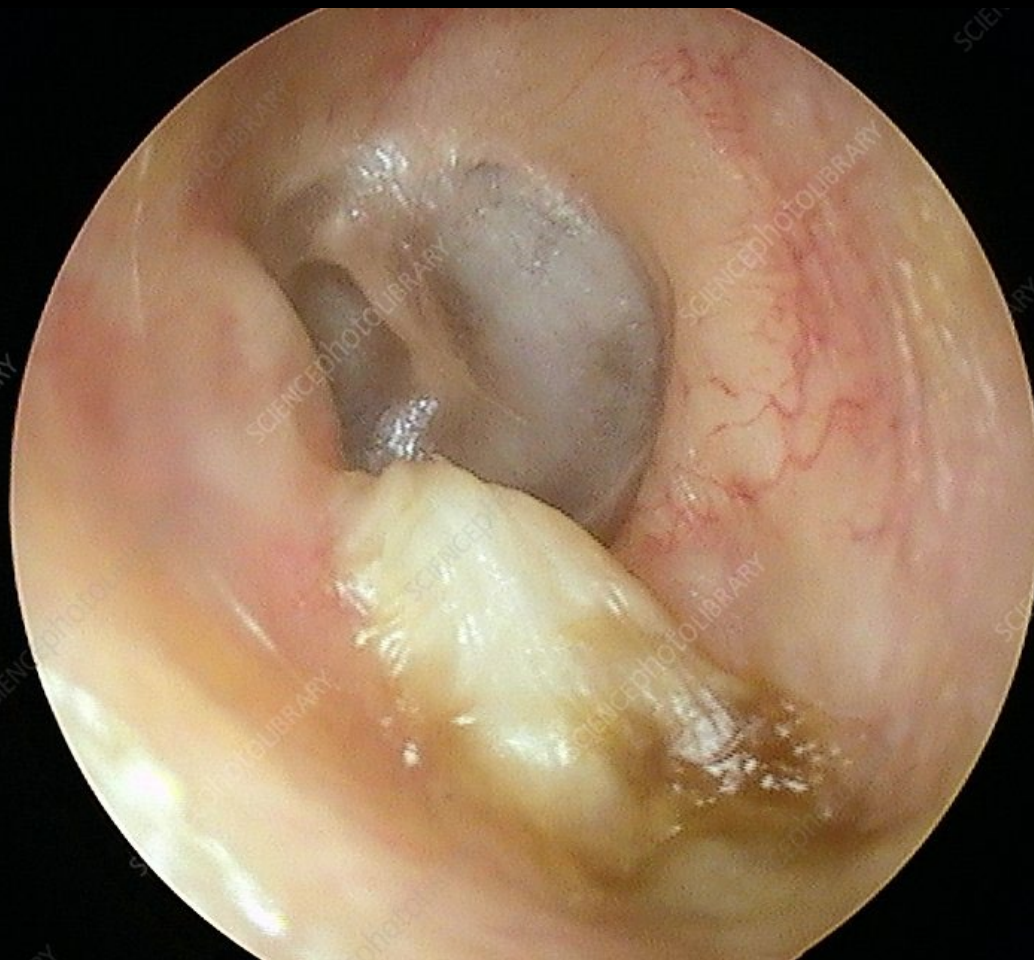
Otitis externa, or cholesteatoma



Cholesteatoma?



Canal cholesteatoma



Cholesteatoma?



Otitis media

- Bulging, red
- Painful



Cholesteatoma?



Fungal otitis externa

- Spore



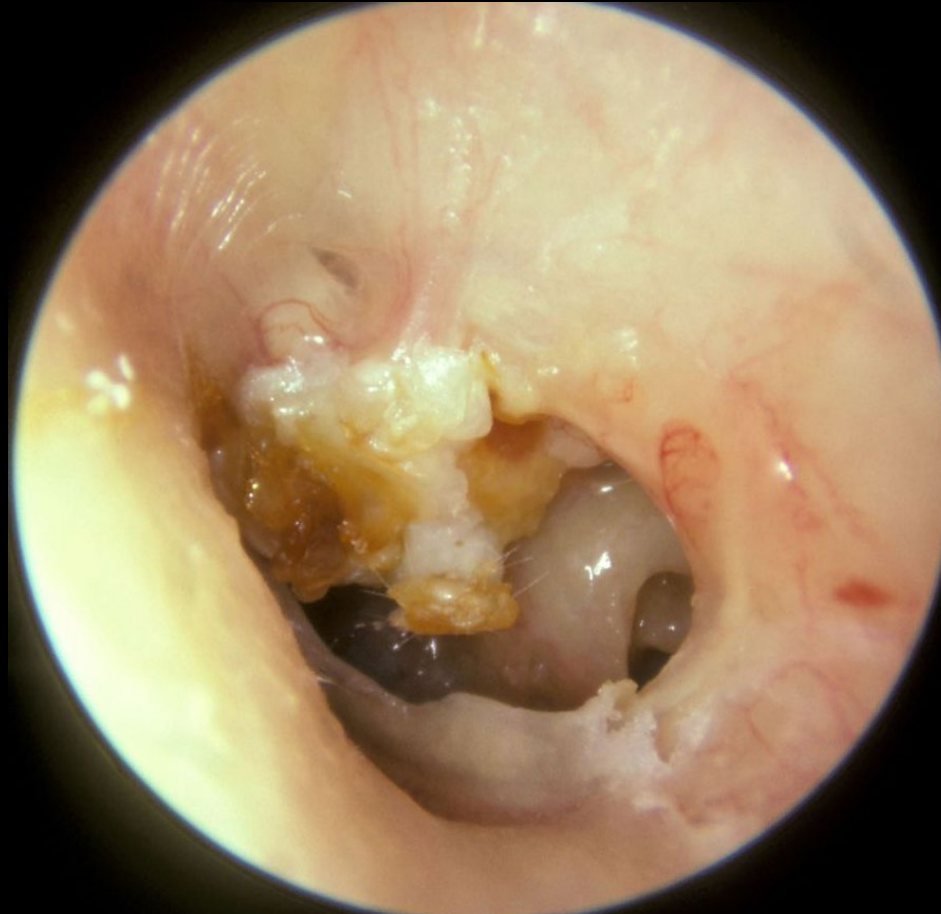
Cholesteatoma?



Secondary acquired



Cholesteatoma?



Primary or secondary acquired

