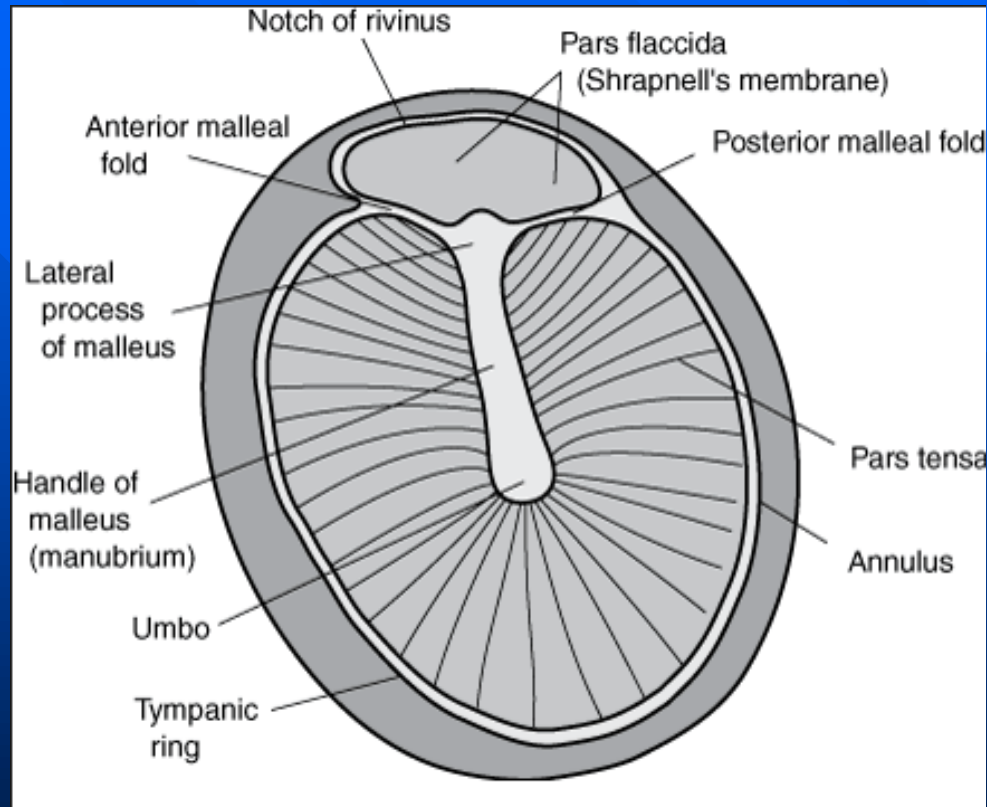


# Cholesteatoma



# Cholesteatoma

## ■Types

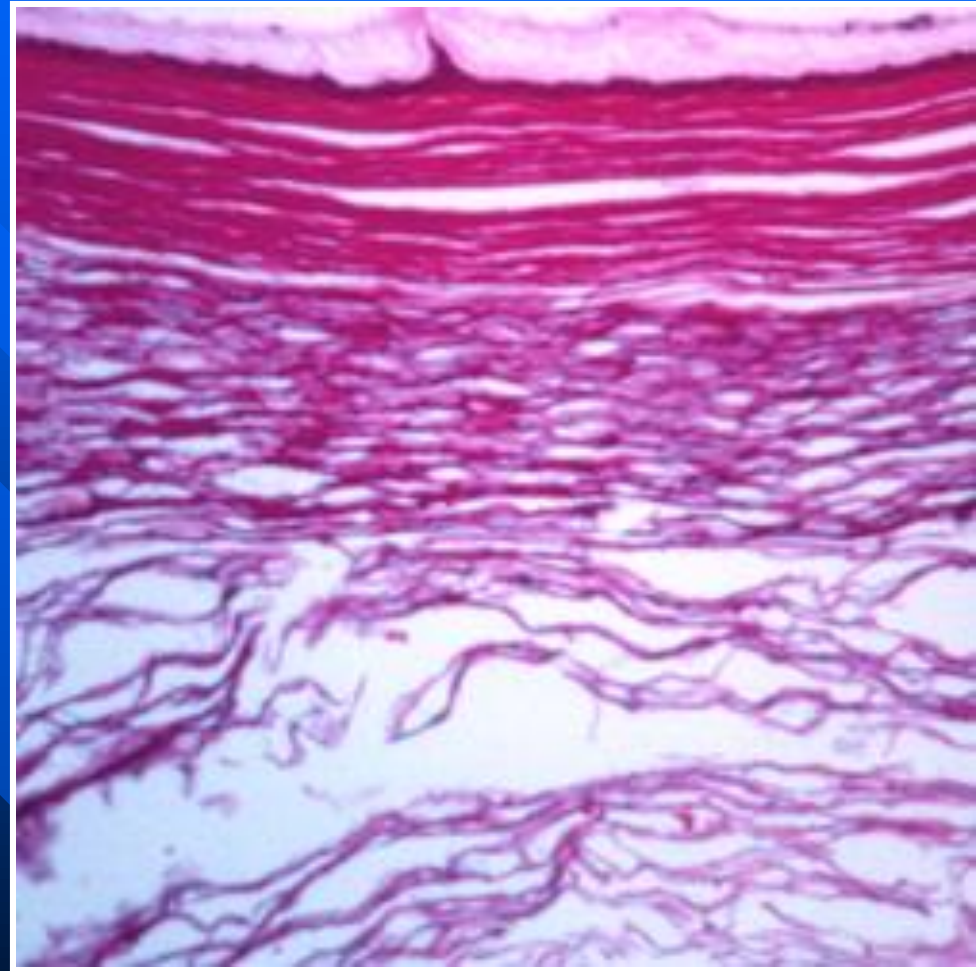
- Congenital (ME, PA, CPA)
- Acquired (ME, PA)

## ■Terms

- Cholesteatoma
- Epidermoid cyst

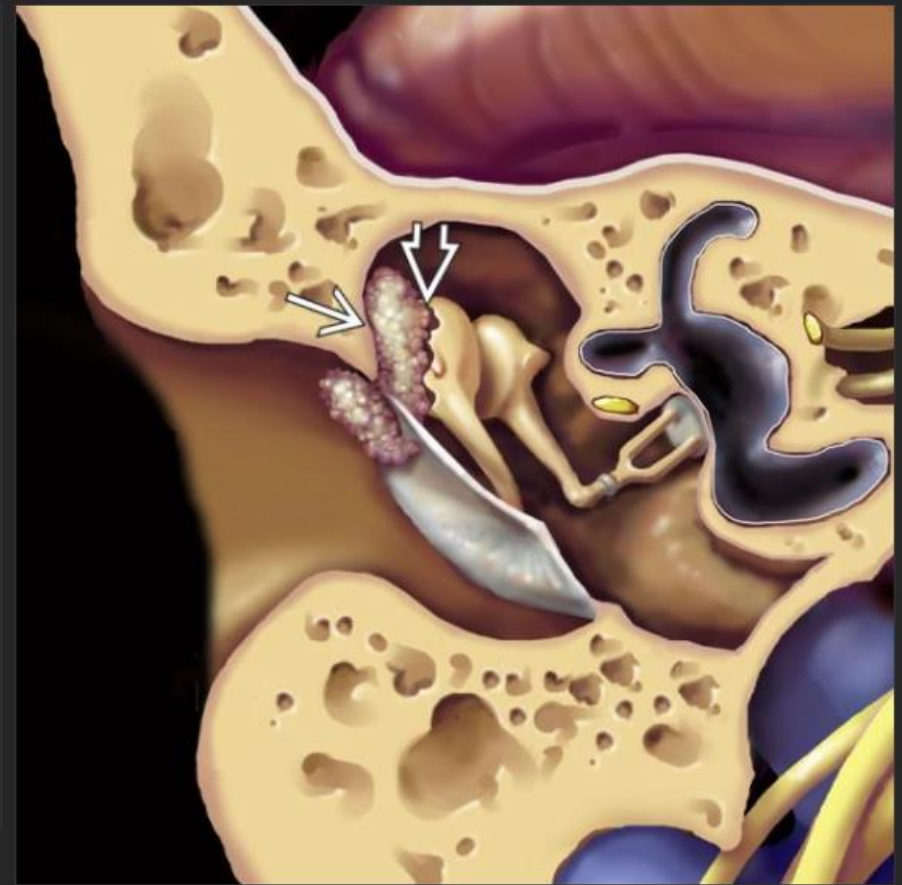
## ■Histopathology

- All look the same
- Aberrant rests of exfoliated keratin & stratified epithelial cells



# Acquired Cholesteatoma, Pars Flaccida

- Soft tissue mass in Prussak space with scutum & ossicle erosions
- 80% of all acquired cholesteatomas
- DWI restricted diffusion confirms PFC present
- Squamous epithelium + keratin accumulation forms cholesteatoma



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Coronal graphic shows small cholesteatoma originating at pars flaccida portion of the tympanic membrane with filling of Prussak space →. Slight erosion ↗ with medial displacement of head of malleus is present.

# Cholesteatoma Features

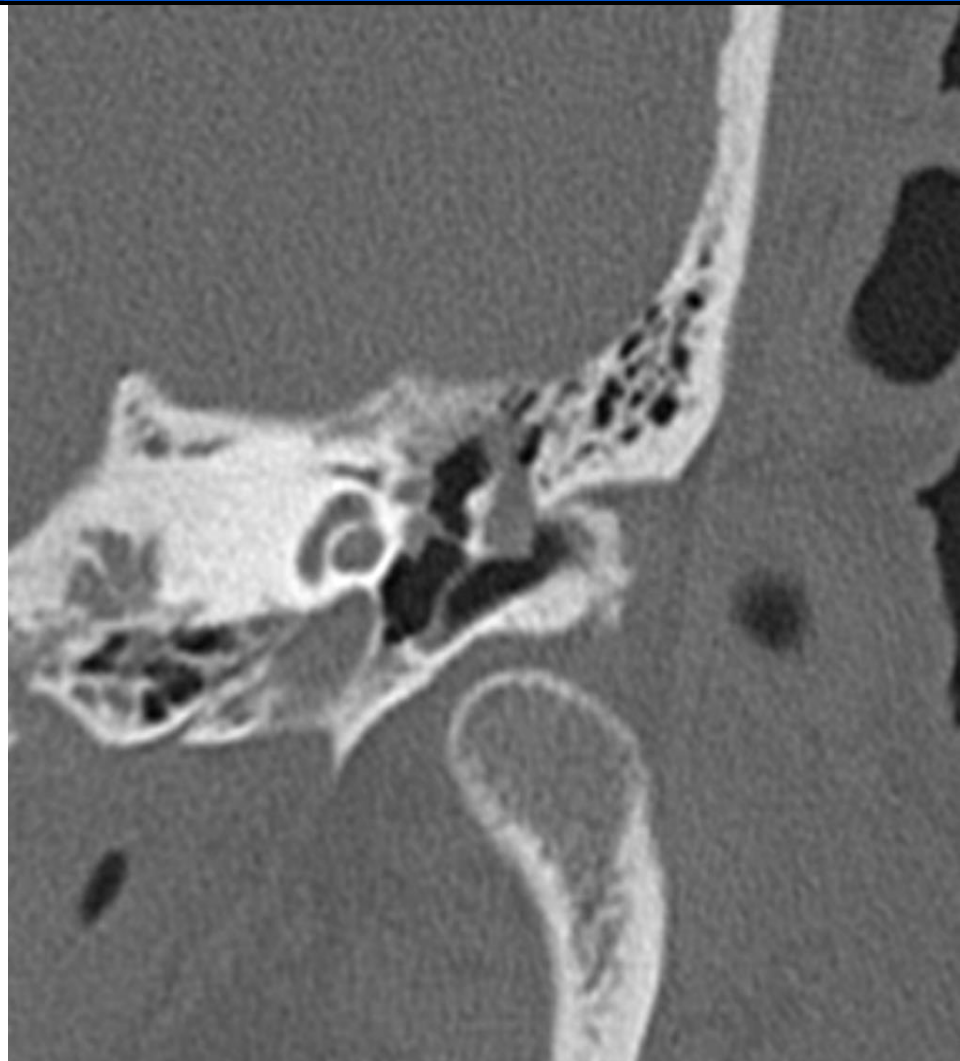
- 1. Middle ear mass,
- 2. Erosion of ossicles
- 3. Erosion of tegmen tympani,
- 4. Erosion of scutum
- 5. Erosion of lateral wall of lateral semicircular canal and
- 6. Remodeling of the middle ear (the one most people forget)



# Acquired Cholesteatoma



Normal



Prussak's space mass

# Cholesteatoma

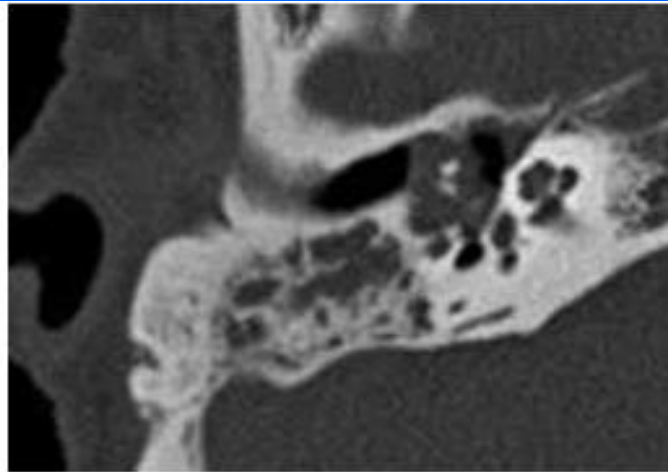


Figure 1: Axial CT

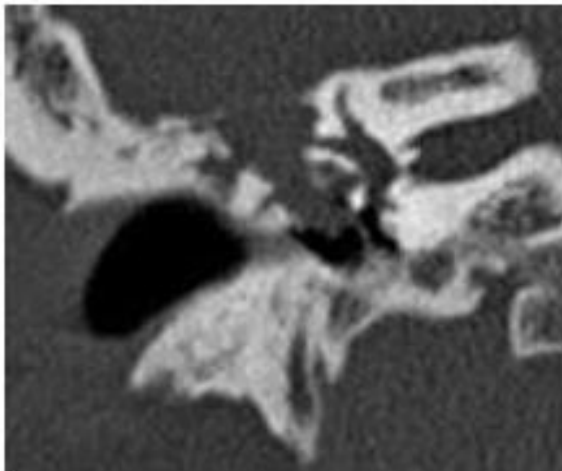


Figure 2A&B: Coronal CT

# Acquired Cholesteatoma, Pars Tensa

- Focal accumulation of exfoliated keratin within stratified squamous epithelium at site of perforation or retraction pocket at pars tensa.
- Erosive mass in posterior mesotympanum involving sinus tympani, facial nerve recess, and aditus ad antrum  $\pm$  mastoid



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Coronal graphic of pars tensa cholesteatoma (PTC) shows the cholesteatoma extending laterally through an inferior TM rupture →. The middle ear PTC erodes ossicles ⇨, invades & flattens tympanic CN7 canal ⇨, and is primarily medial to the ossicles.

# Pars Tensa

- 10-20% of all middle ear cholesteatomas
- Significantly less common than pars flaccida



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Coronal temporal bone CT in the same patient shows a pars tensa cholesteatoma surrounding the ossicles emanating from a tympanic membrane perforation →. The scutum remains intact ⇨, and the bulk of the lesion is medial to the ossicles ↗, both features supporting a diagnosis of PTC.