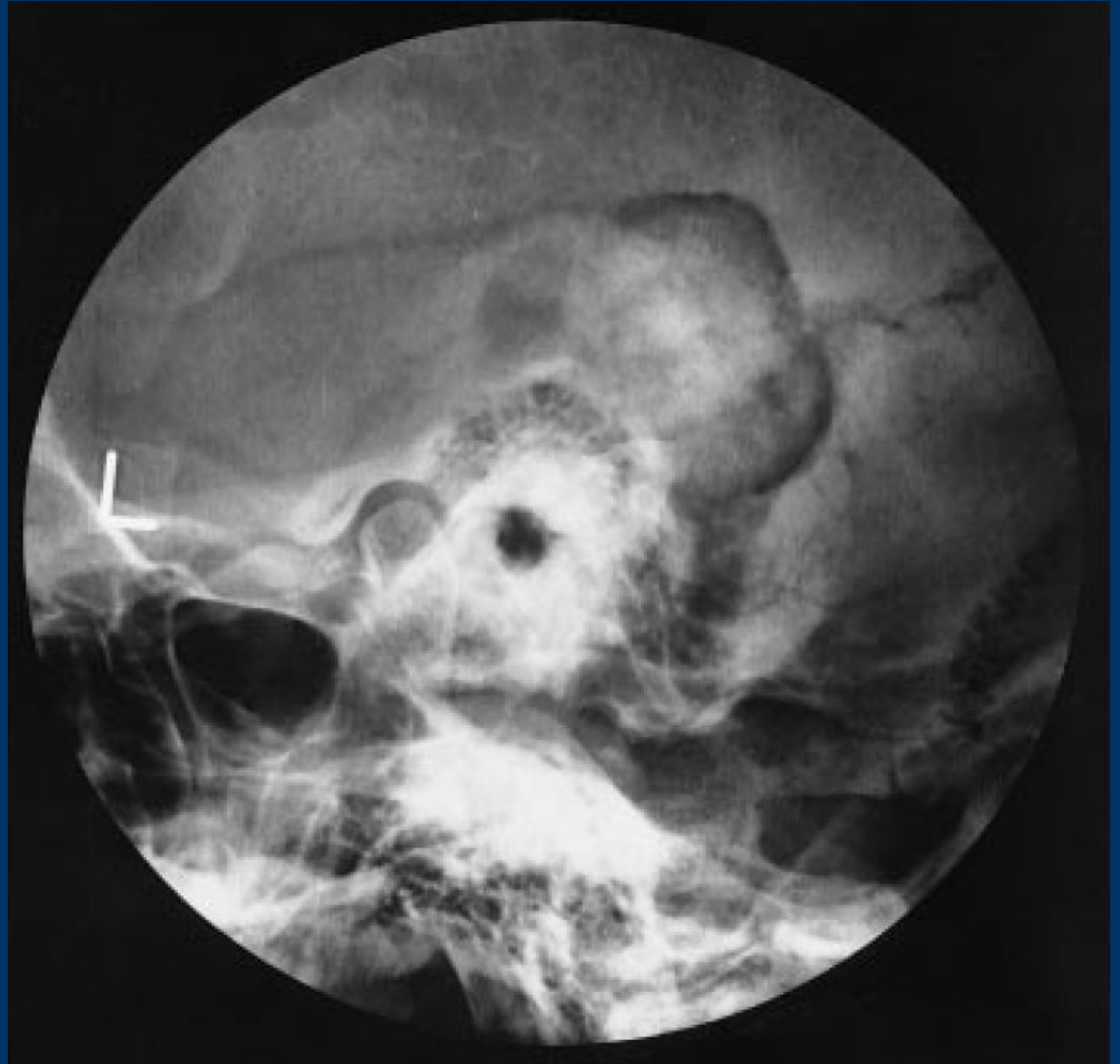
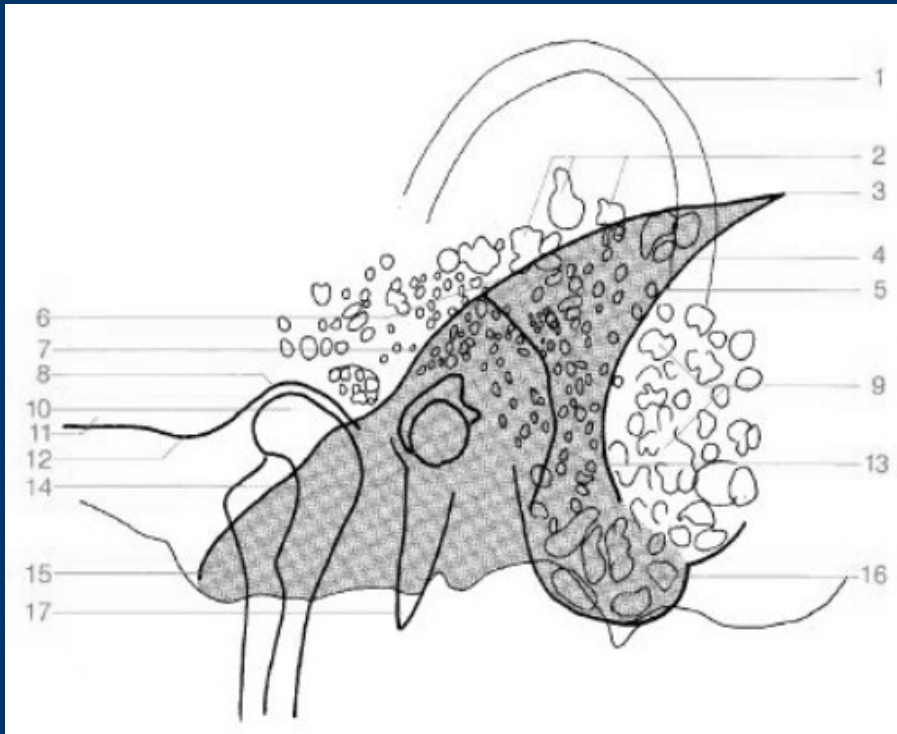


***Imaging of the ear – X ray of the temporal bone,  
Schuller's projection***



## Imaging of the ear – X ray of the temporal bone, Schuller's projection

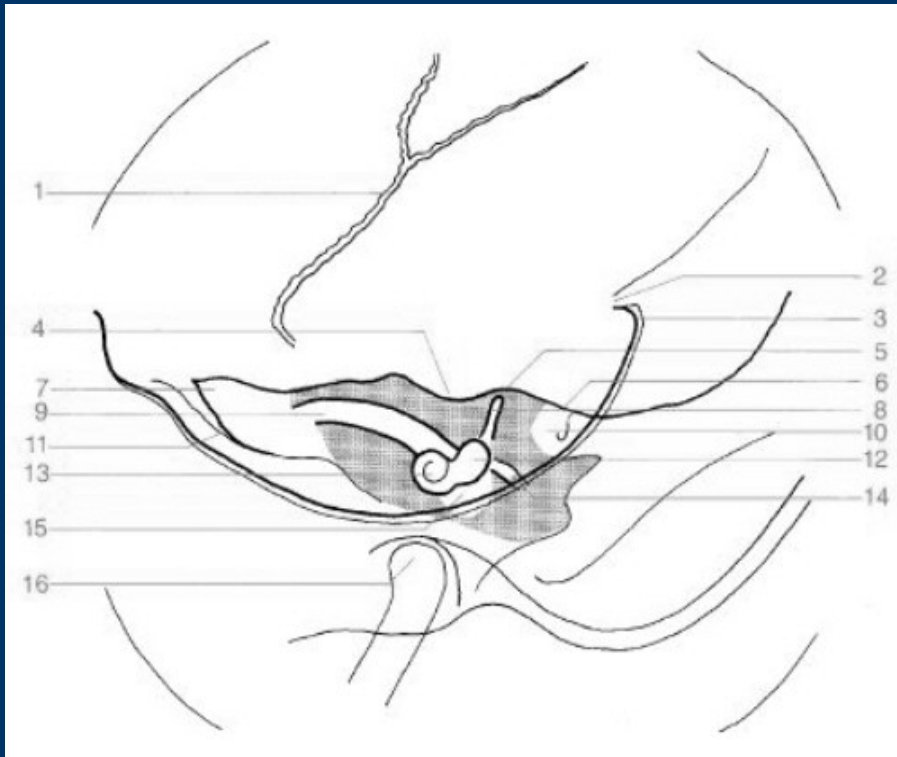


- 1. Auricula
- 2. Cellulae squamosae
- 3. Angulus Citelli
- 4. Cellulae periantralis
- 5. Sulcus sinus sigmoidei
- 6. Margo anterior partis petrosae
- 7. Antrum mastoideum
- 8. Fossa mandibularis, Facies articularis
- 9. Cellulae marginalis
- 10. Mandibula, Processus condylaris
- 11. Os temporale, Processus zygomaticus
- 12. Tuberculum articulare
- 13. Cellulae retrofacialis
- 14. Meatus acusticus internus et externus
- 15. Apex partis petrosae
- 16. Processus mastoideus, Cellulae mastoideae
- 17. Processus styloideus

*X ray of the temporal bone  
Stenvers' projection*

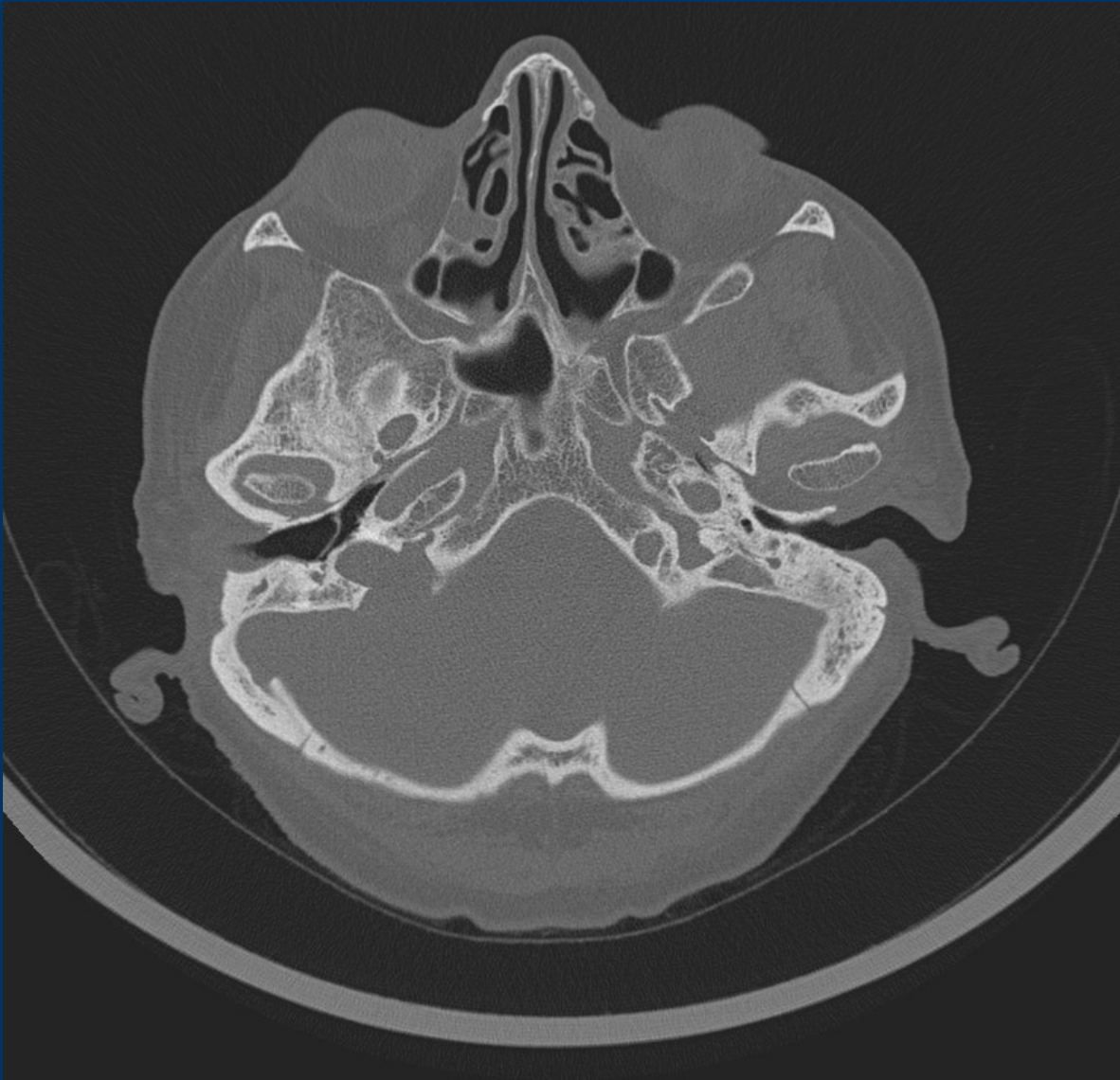


## *X ray of the temporal bone Stenvers' projection*



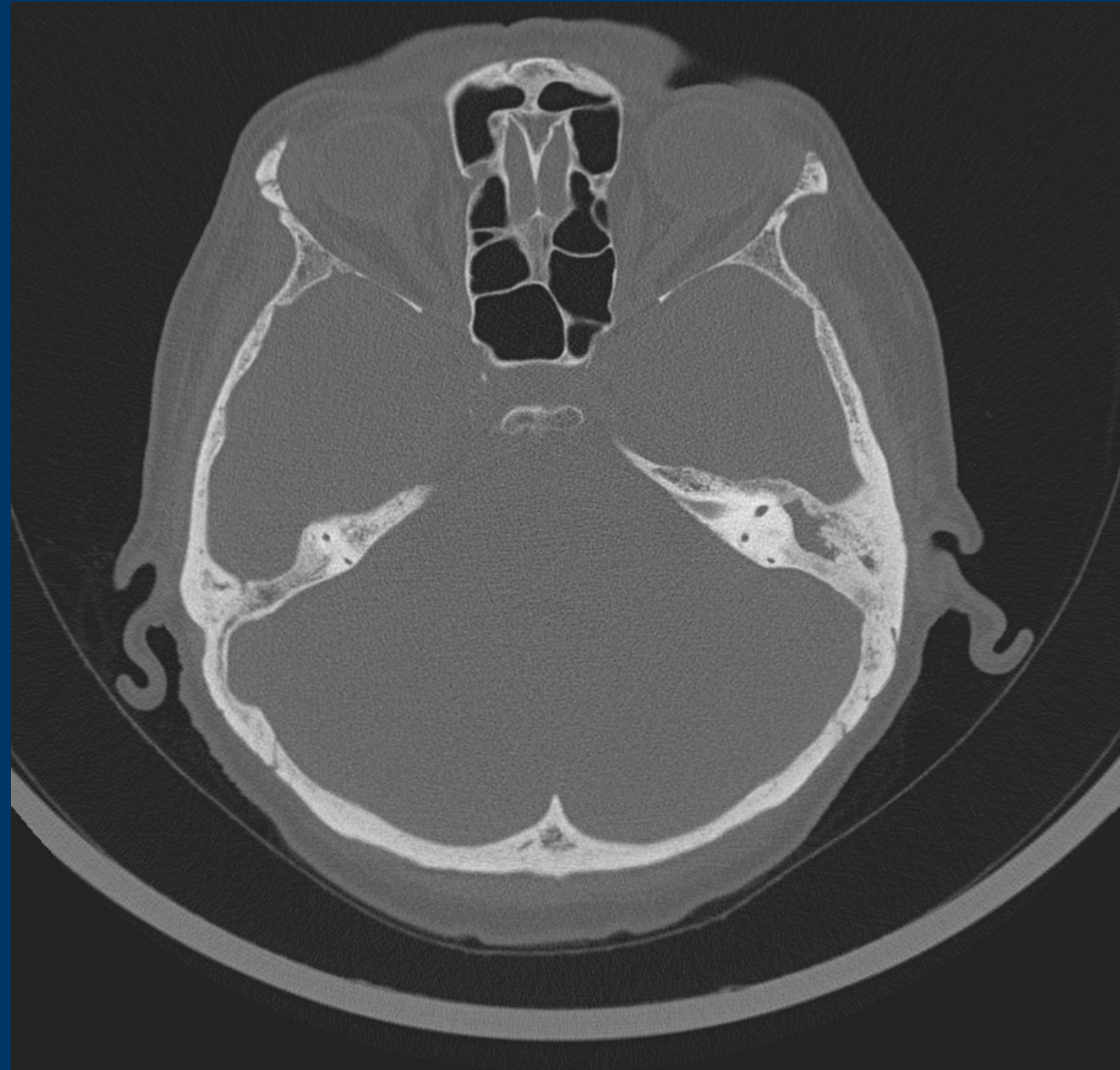
- 1. Sutura sphenosquamosa
- 2. Protuberantia occipitalis interna
- 3. Crista occipitalis interna
- 4. Fossa subarcuata
- 5. Eminentia arcuata
- 6. Tegmen tympani
- 7. Apex partis petrosae
- 8. Canalis semicircularis anterior
- 9. Meatus acusticus internus
- 10. Antrum mastoideum
- 11. Fissura sphenopetrosa
- 12. Vestibulum
- 13. Cochlea
- 14. Canalis semicircularis lateralis
- 15. Cavitas tympanica
- 16. Mandibula, Processus condylaris

*CT of the temporal bone – tympanic membrane*

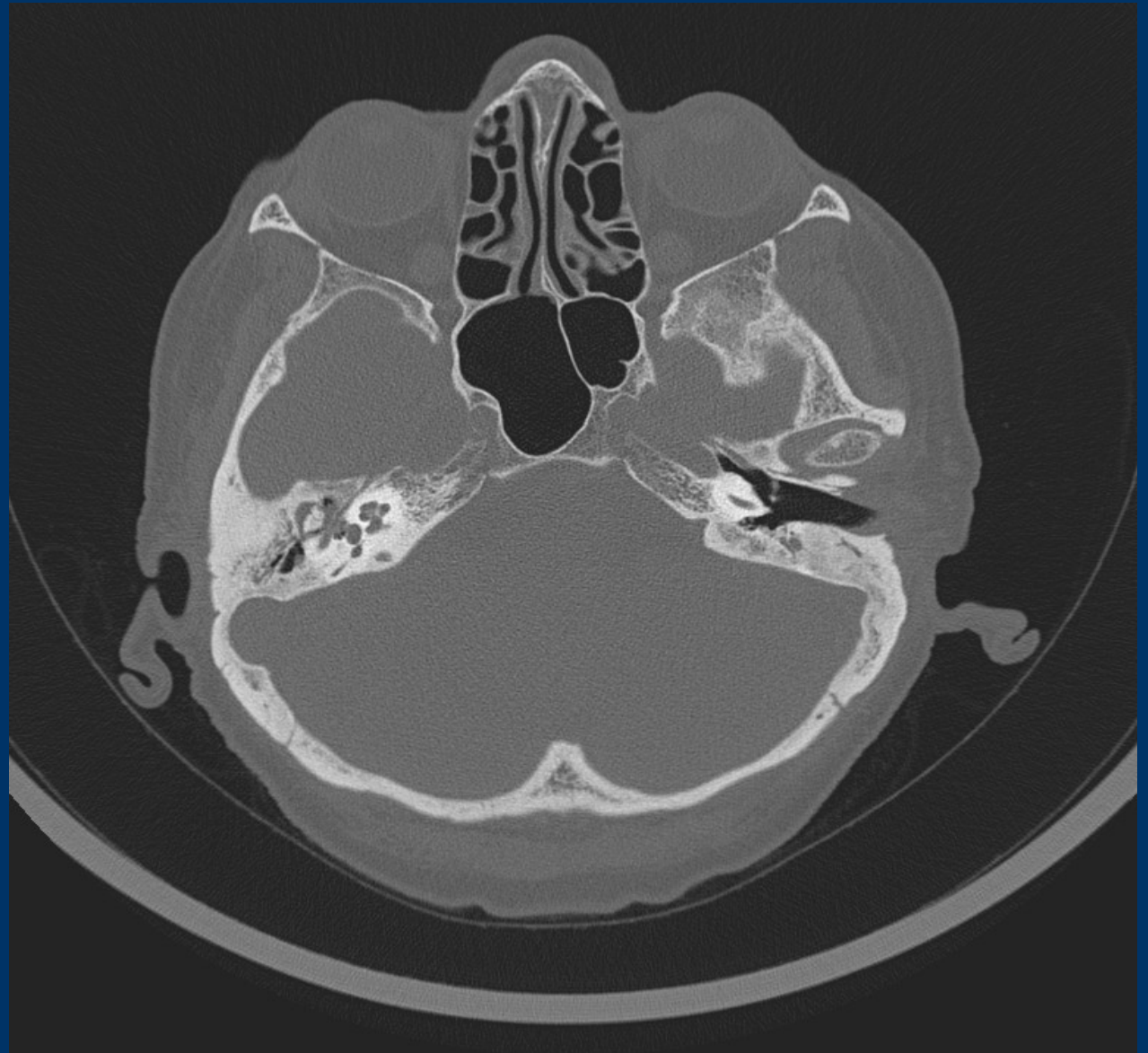




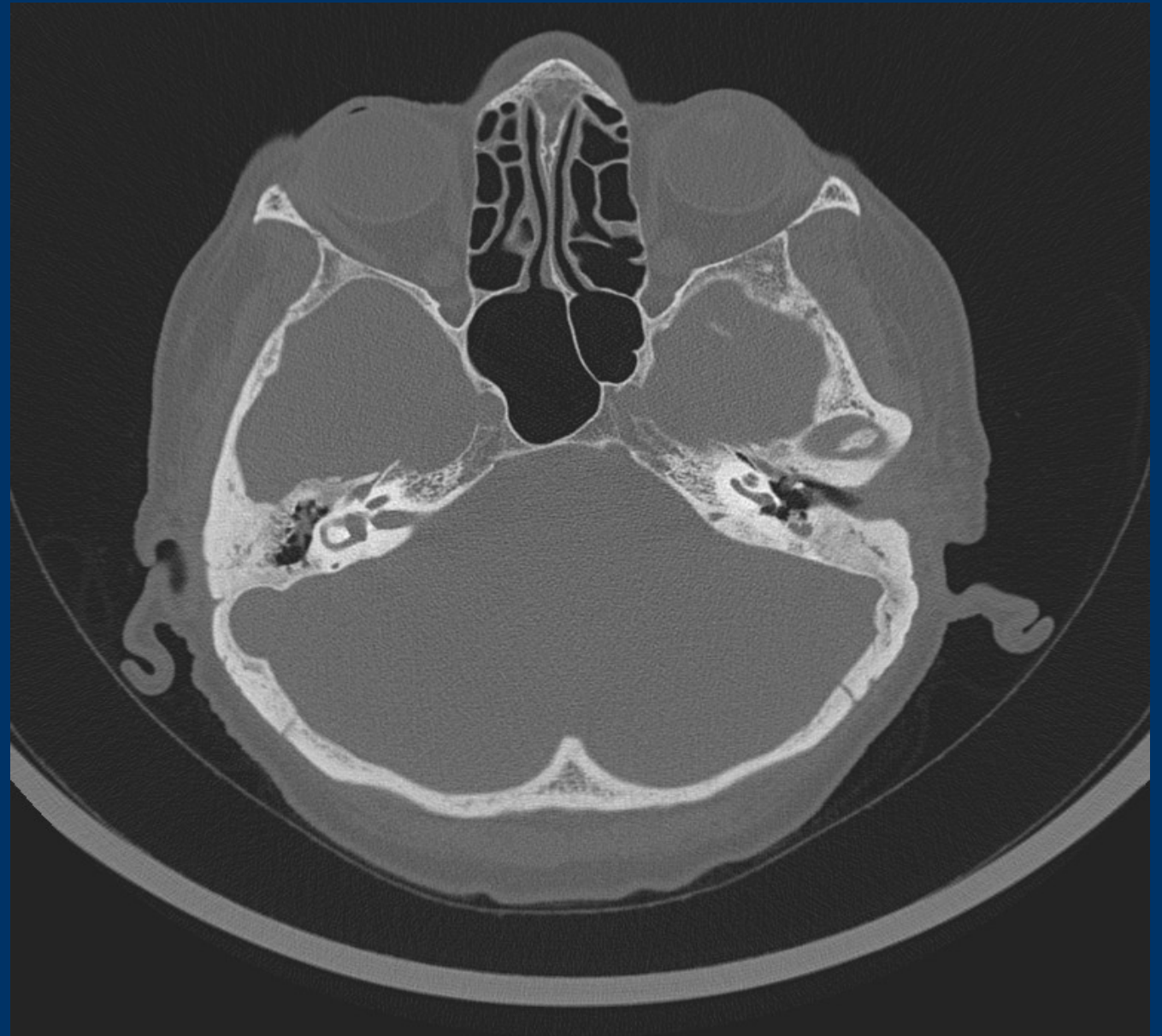
## *Superior semicircular canal*



***Malleus, incus, articulation***



*Lateral semicircular canal*

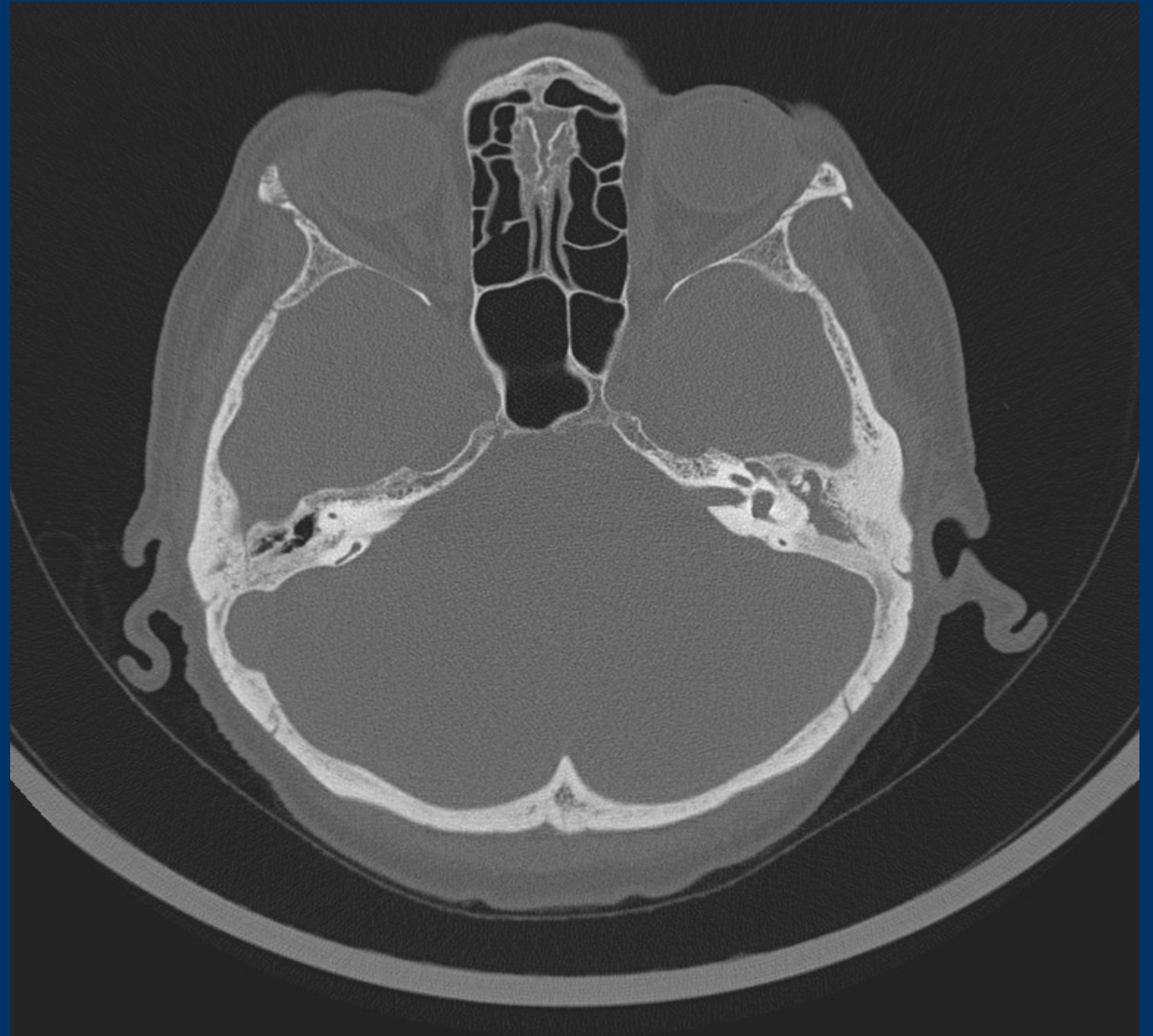




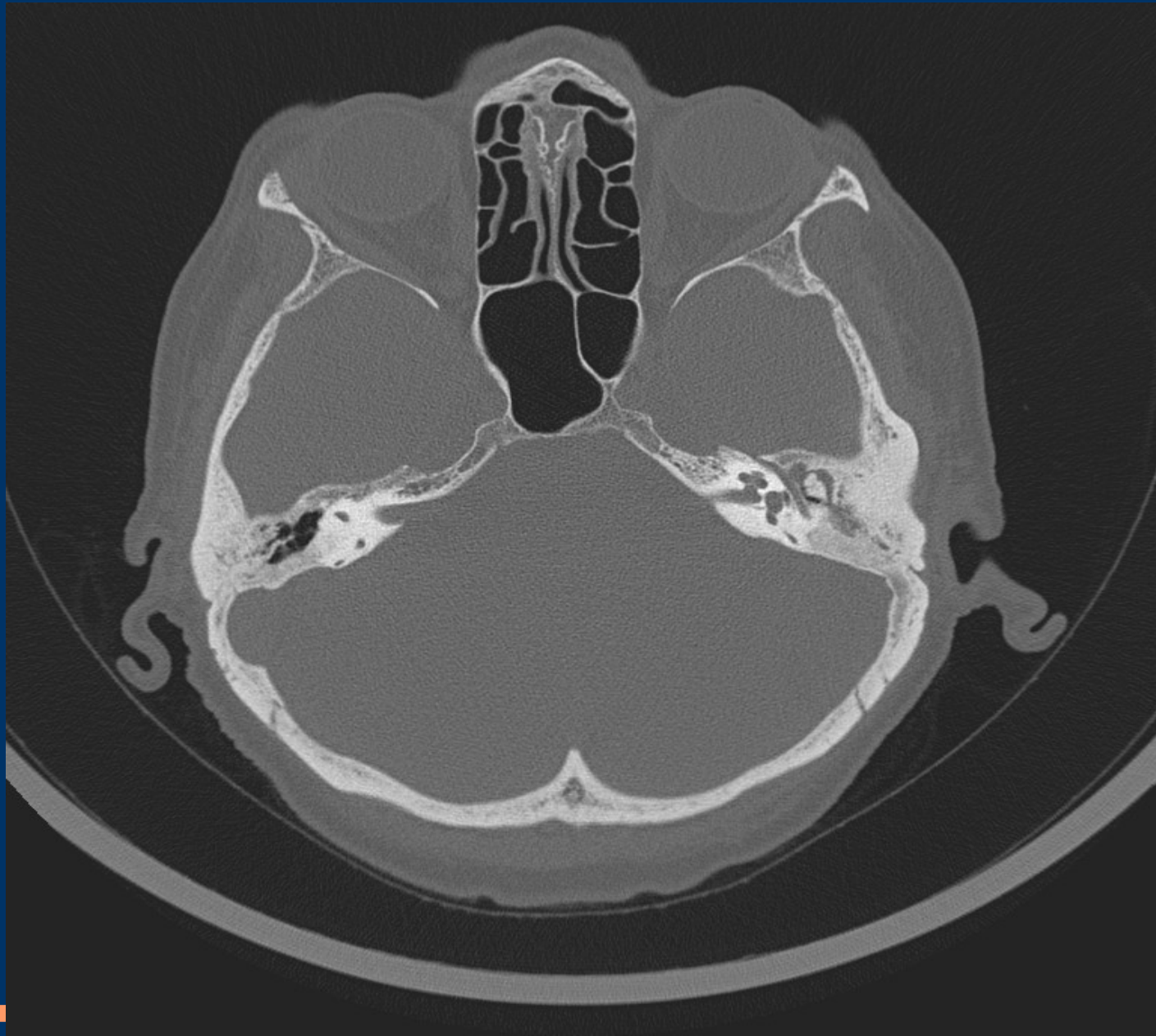
## *The cochlea*



*Posterior semicircular canal*

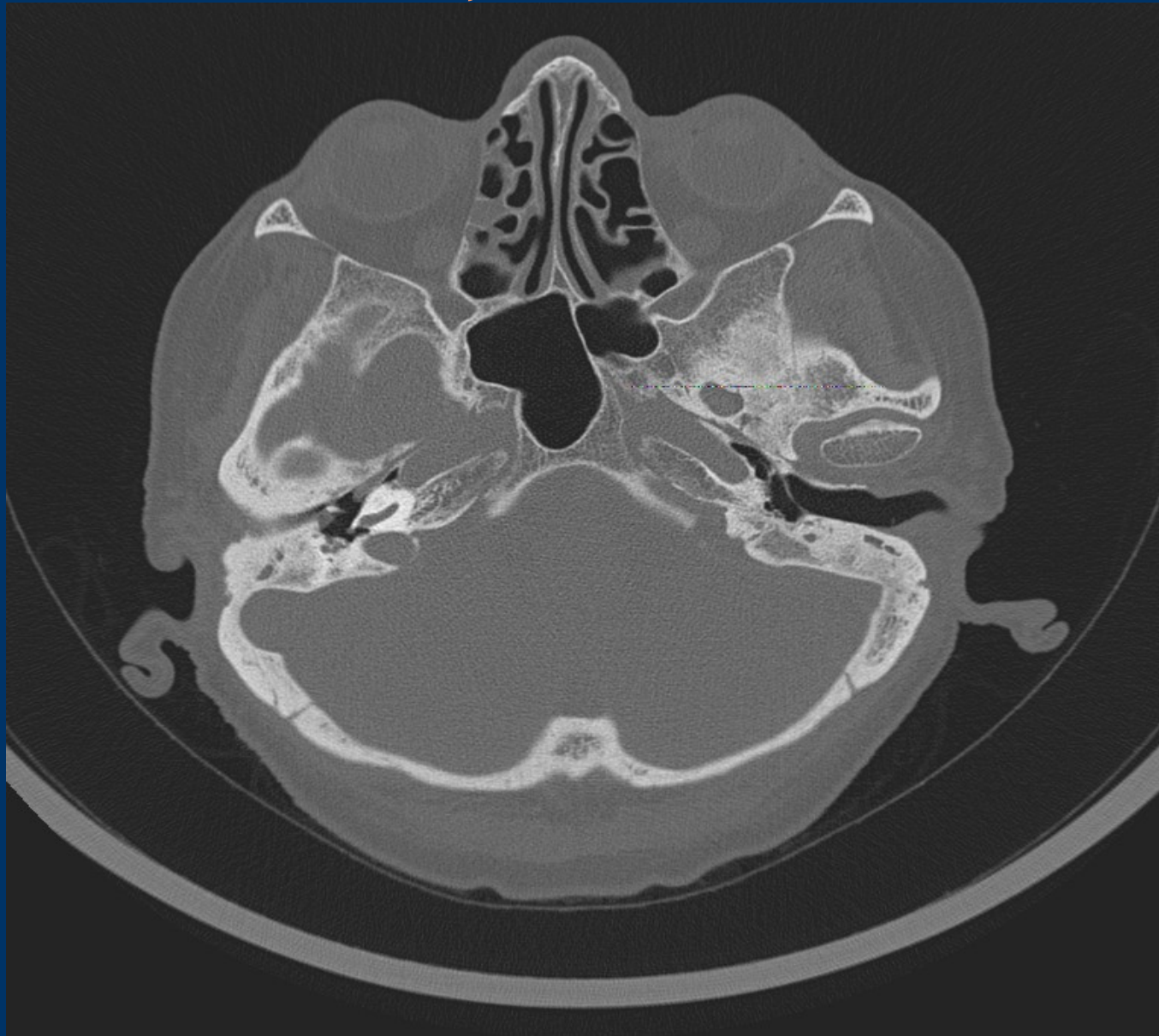


*The vestibule, cochlea, Fallopian canal, ossicules*





*Basal turn of the cochlea, round window*



## *Magnetic resonance imaging*

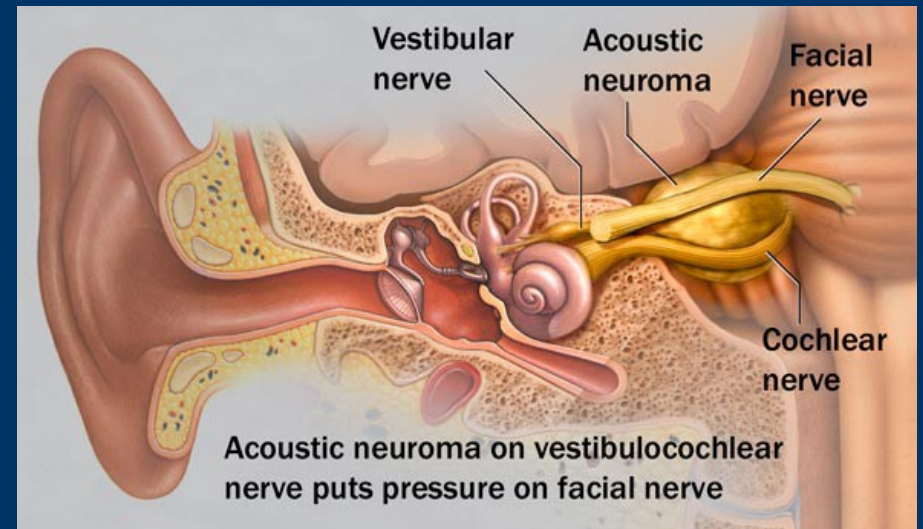


- T1-weighted MRI after i.v. contrast shows left-sided mastoiditis and subtotal, thrombotic occlusion of the transverse and sigmoid sinus (\*)



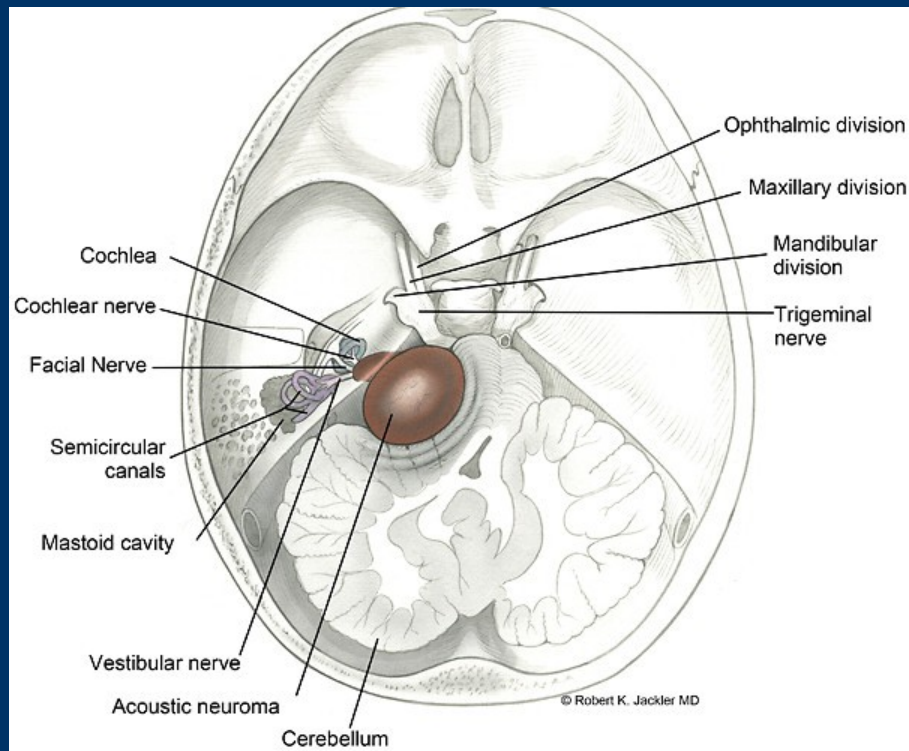
## *Schwannoma = acoustic schwannoma*

- In the internal ear canal
- in the ponto-cerebellar angle



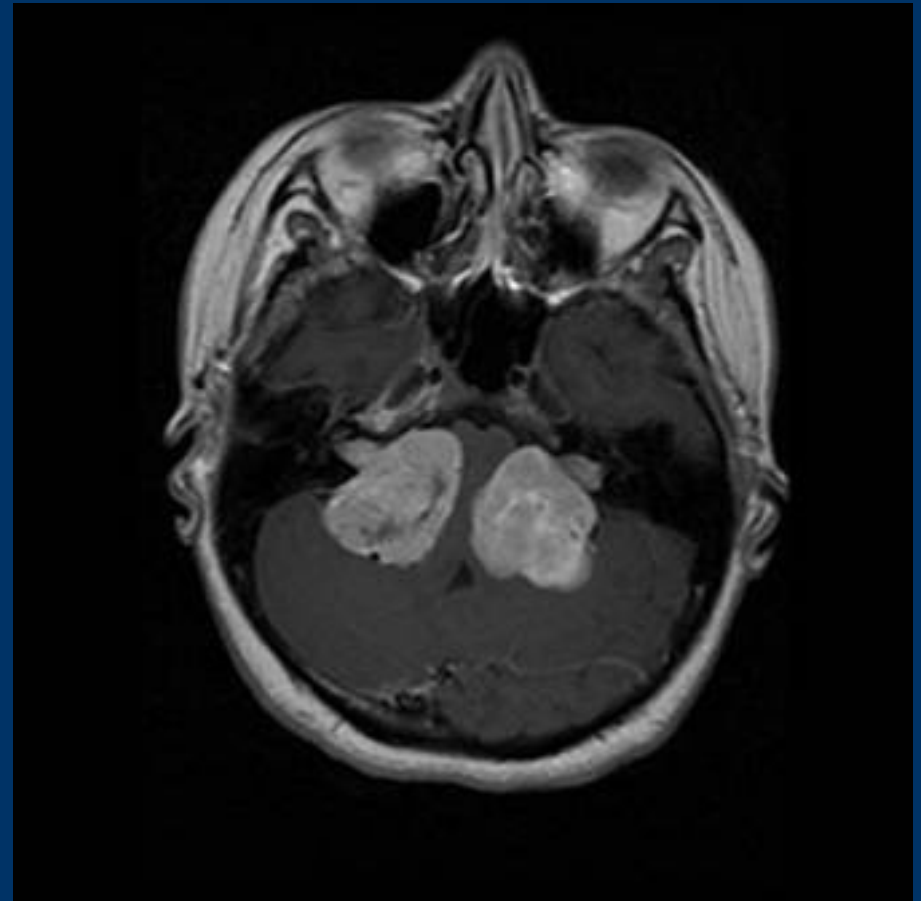
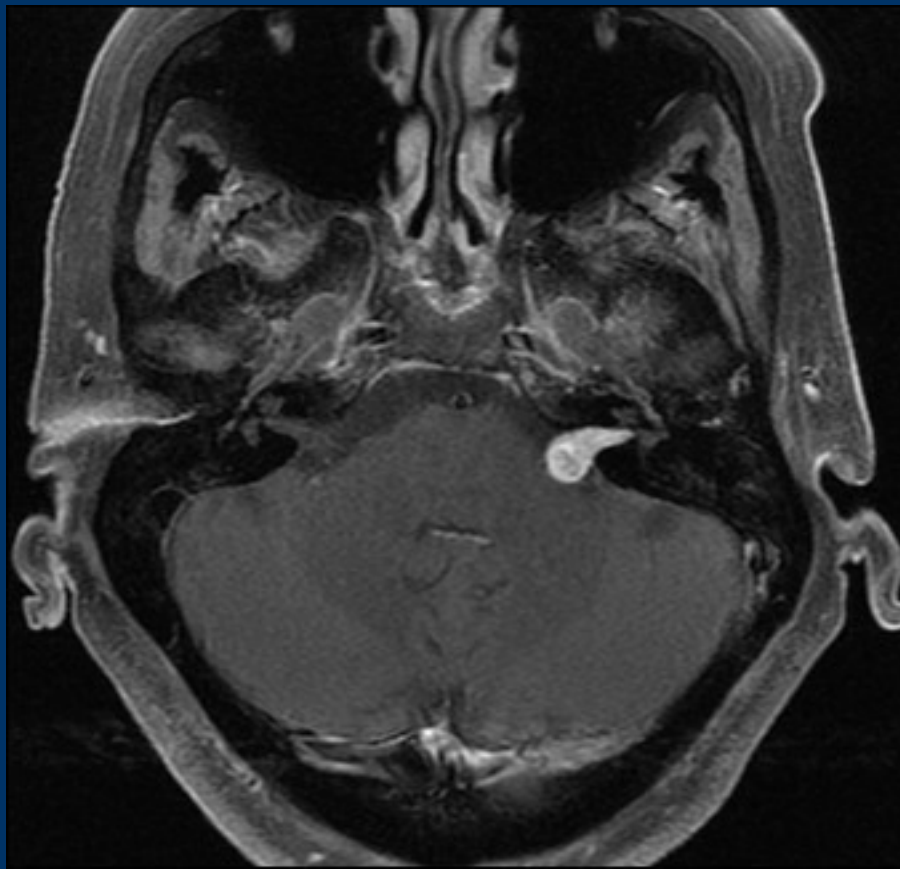
# Schwannoma

- Big schwannoma with symptoms of pressure of the cerebellum and 4<sup>th</sup> ventricle



- Single side
- Both sides in neurofibromatosis-2 (both sides schwannomas, cafe-au-lait stains on the skin, meningiomas)

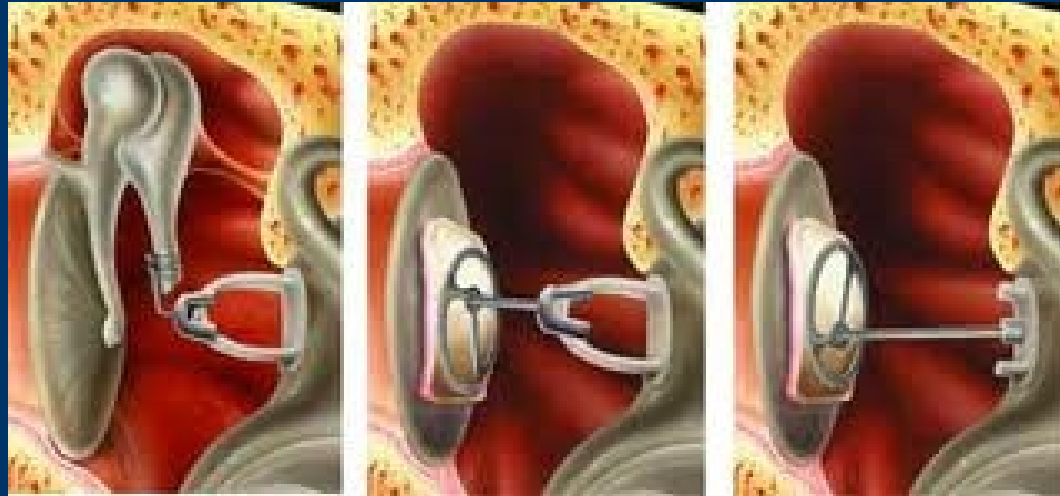
# Schwannoma



## *Hearing prosthesis and auditory rehabilitation*



## *PORP, TORP*

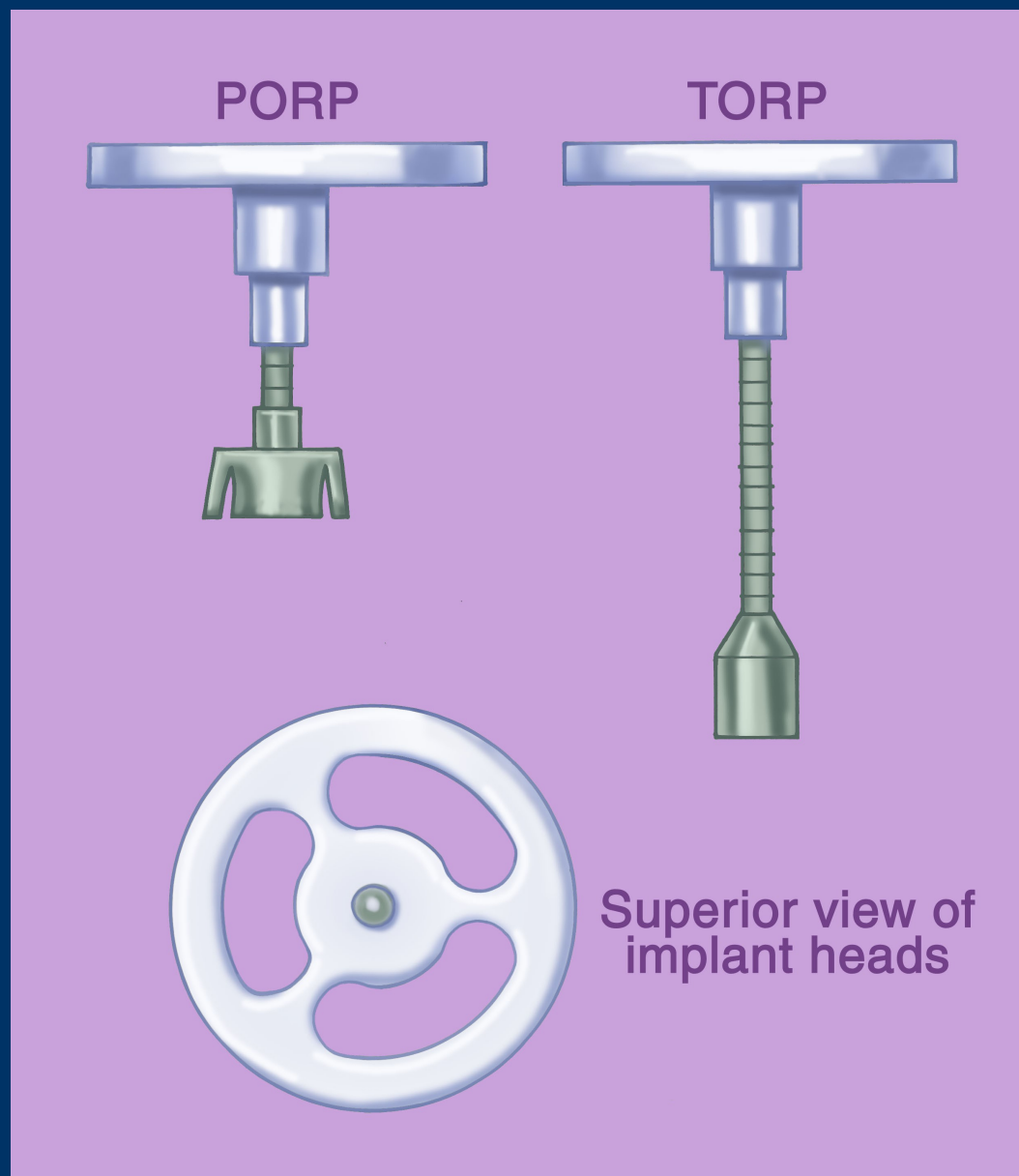


- Partial ossicular replacement prosthesis (short columella)
- Total ossicular replacement prosthesis (long columella)





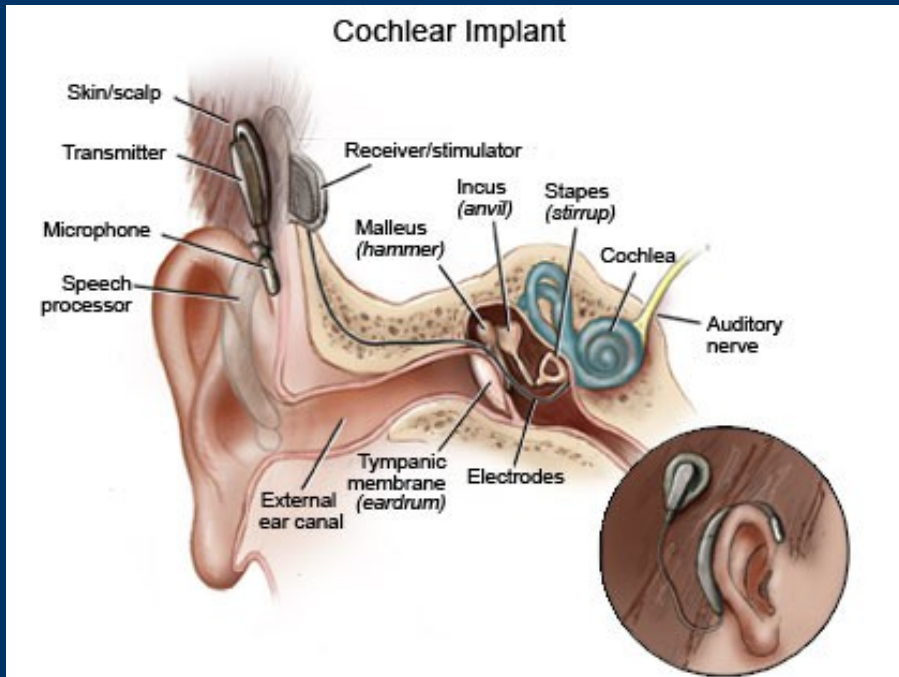
# PORP, TORP



## *Hearing aid (HA)*



# Cochlear implant



# ***Auditory brainstem implant***



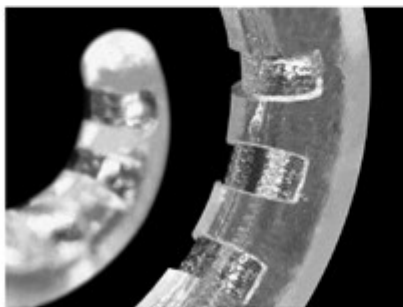
# Electrodes



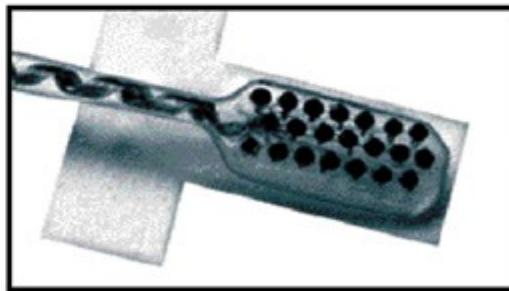
1a.



1c.



1b.



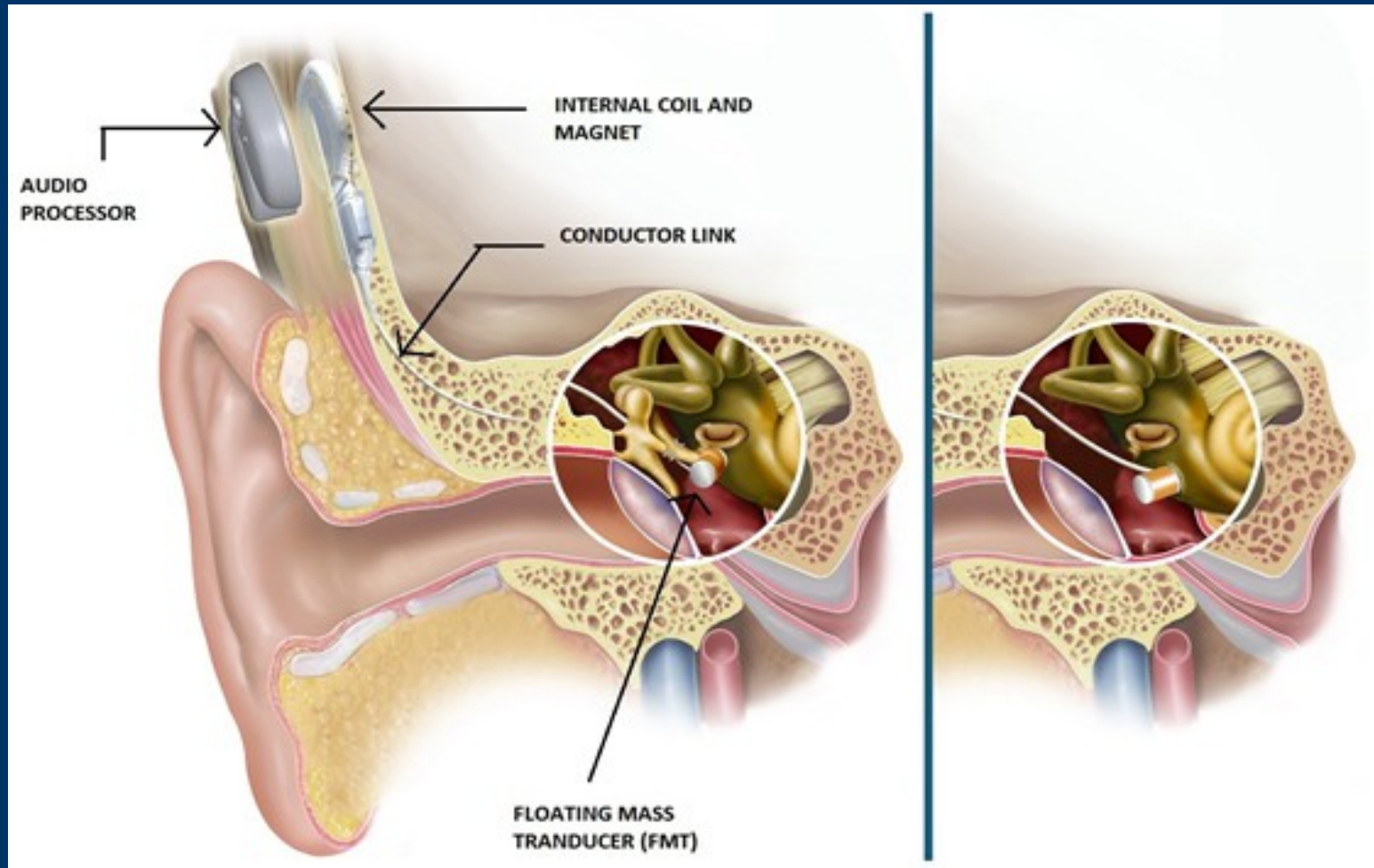
1d.



1e.



## Middle ear implant (MEI)



## *MEI Medel*

