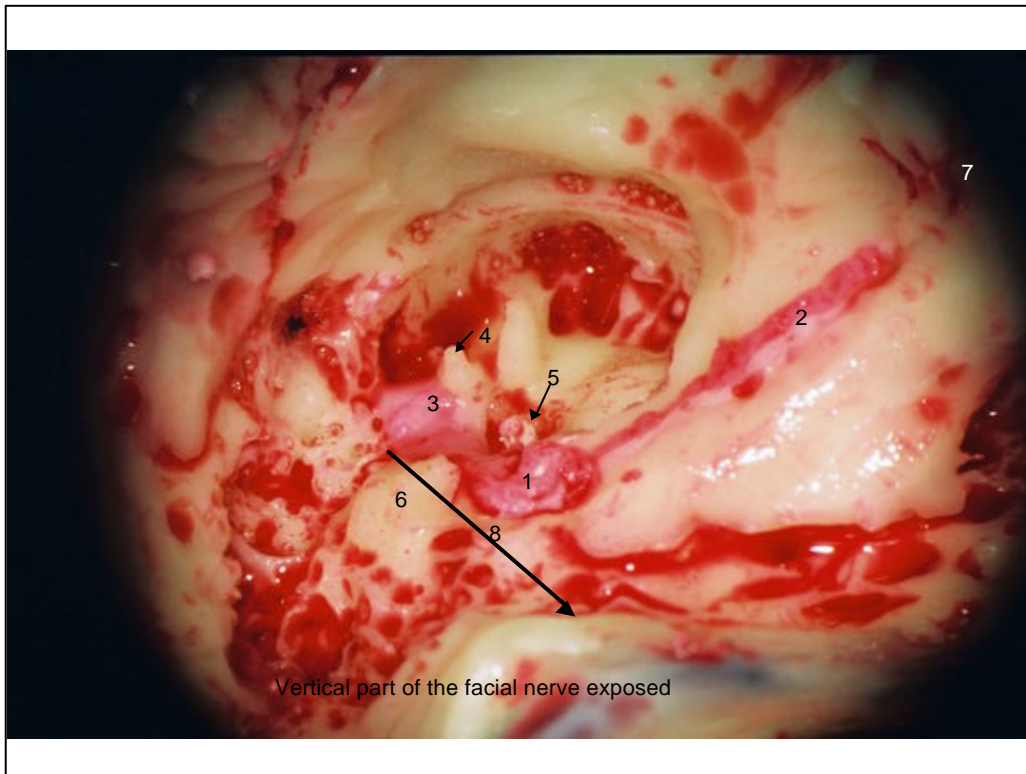


Exposure of facial nerve and endolymphatic sac





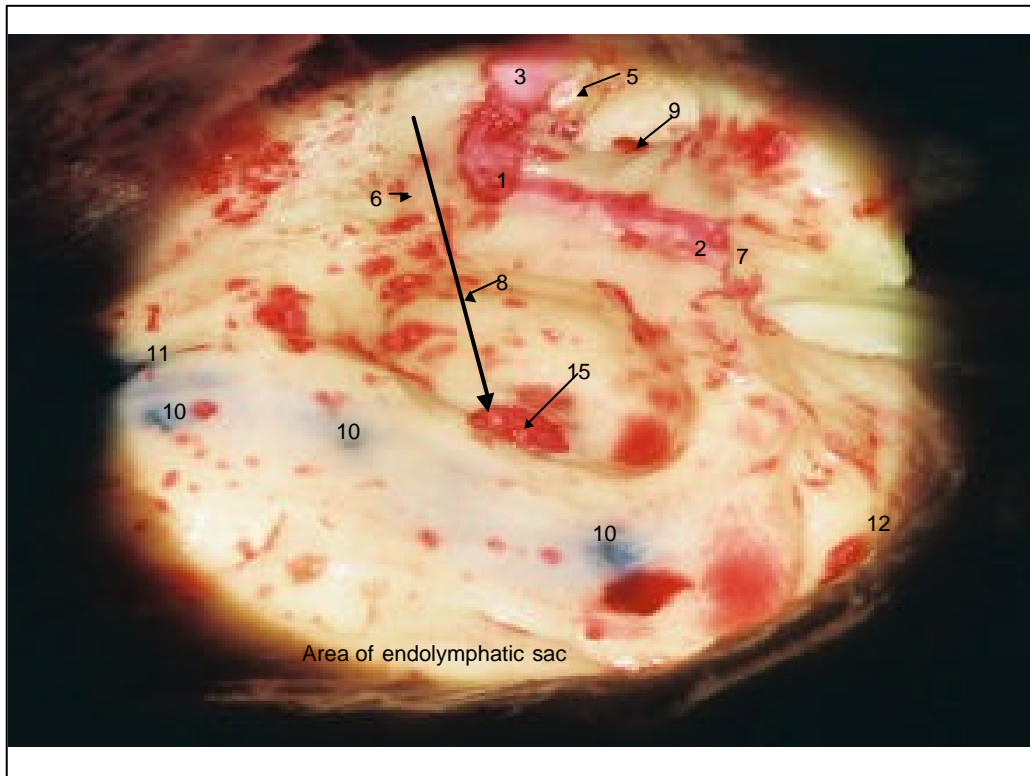
- 1** Second genu of facial nerve. **2** Vertical part of facial nerve.
3 Horizontal part of facial nerve. **4** Cochleariform process. **5** Stapes head. **6** Lateral semicircular canal. **7** Stylomastoid foramen.
8 Projection line from lateral semicircular canal to area of endolymphatic sac.

Vertical part of the facial nerve

Drill off bone from the second genu to the stylomastoid foramen.

Area of Endolymphatic Sac.

This area lies medial to the inferior part of the sigmoid sinus. A line projected from the lateral semicircular canal identifies it.

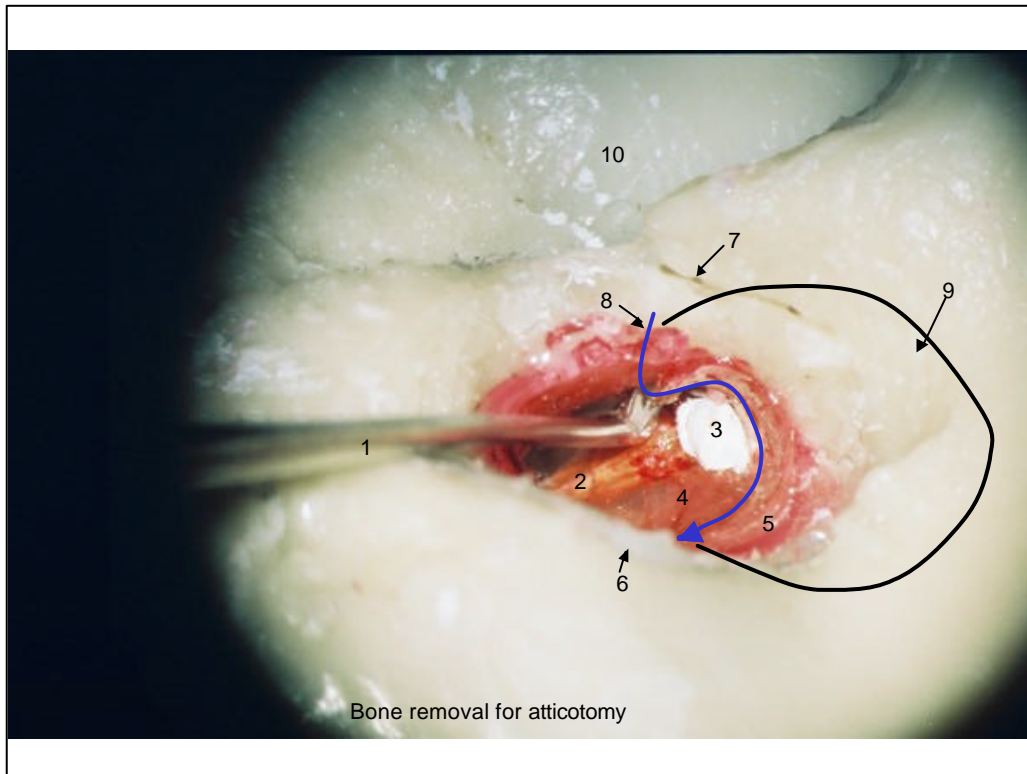


- 1** Second genu of the facial nerve. **2** Vertical part of the facial nerve.
3 Horizontal part of the facial nerve. **5** Head of stapes. **6** Lateral semicircular canal. **7** Stylomastoid foramen. **8** Projection line from the lateral semicircular canal to the area of the endolymphatic sac. **9** Round window niche. **10** Sigmoid sinus. **11** Sinodural angle. **12** Mastoid tip.

This is a low power view showing the bone at the end of the dissection.

Mastoidectomy via atticotomy approach





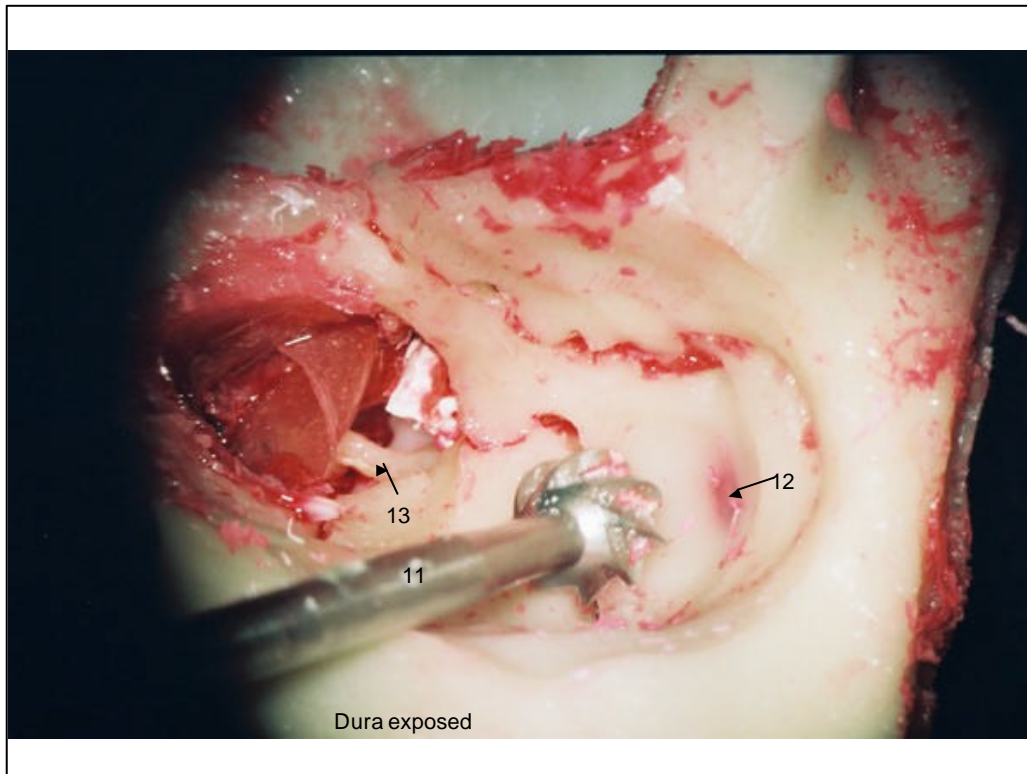
- 1 Plester knife. 2 Handle of malleus. 3 Cholesteatoma.
 4 Posterosuperior part of tympanic membrane. 5 Skin of medial posterosuperior EAC. 6 Tympanosquamous suture.
 7 Tympanomastoid suture. 8 Skin incision. 9 Extent of bony removal. 10 Glenoid fossa.

Now change to the bone with cholesteatoma.

Mastoidectomy via Atticotomy approach.

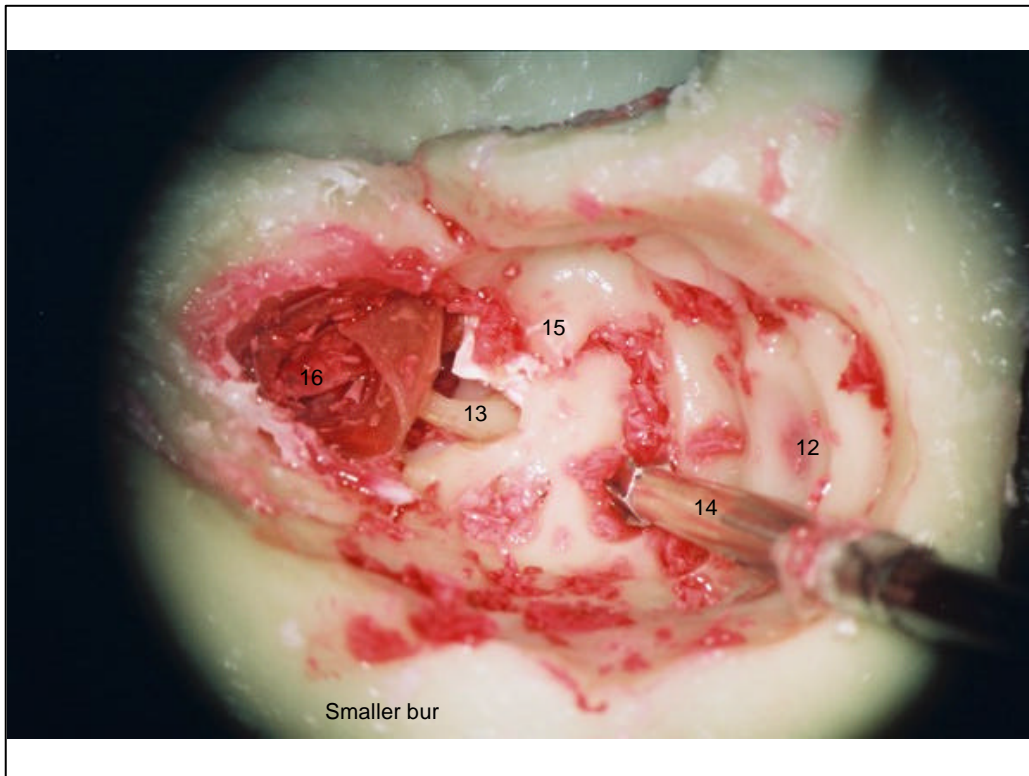
Unless there is gross bony destruction it is not possible to determine the extent of a cholesteatoma preoperatively. The extent of a cholesteatoma is an intraoperative diagnosis. The atticotomy approach allows the surgeon to do a less destructive operation if the cholesteatoma is confined only to the attic (epitympanum.)

Cut the skin of the EAC longitudinally at the anterior part of the notch of Rivinus. Continue this incision via the attic perforation and the bony annulus to divide the TM from the skin of the EAC. Tuck this skin flap into the anteromedial sulcus. Superglue or a piece of thick tinfoil from a suture packet may help keep it there.



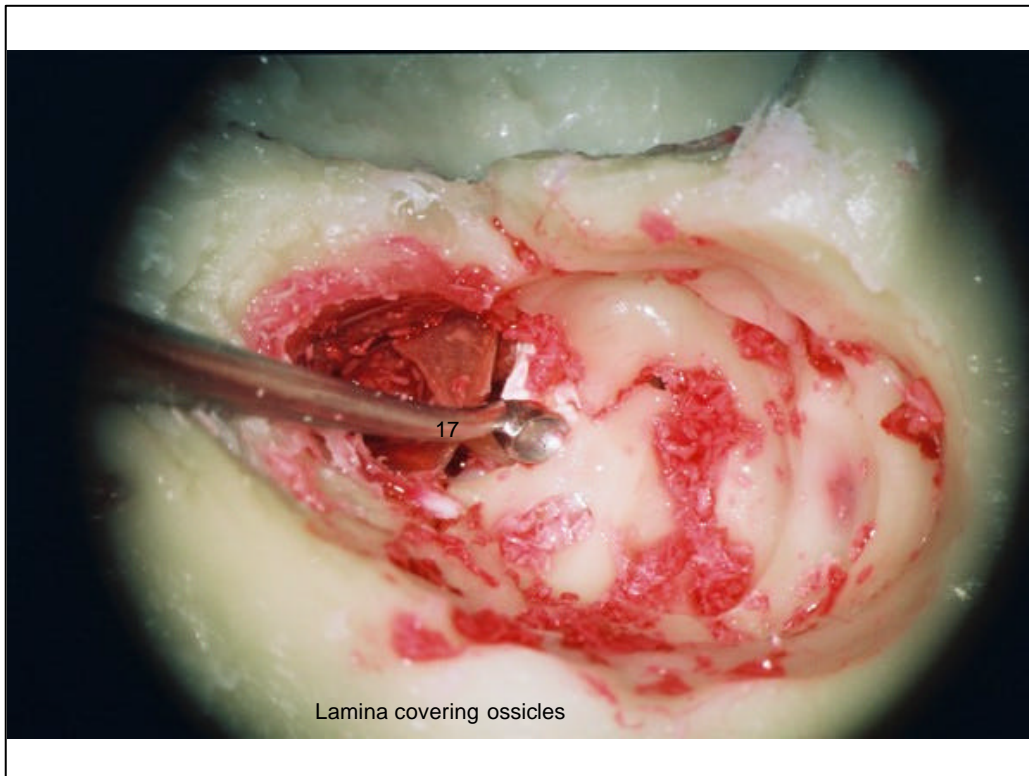
11 Cutting bur 5.5mm. **12** Pink area of dura shining through bone.
13 Long process of incus.

Start drilling with a 5.5mm bur on the cortex superior to the EAC. The superior limit is identified when a small area of pink dura can be seen through the thinned bone.



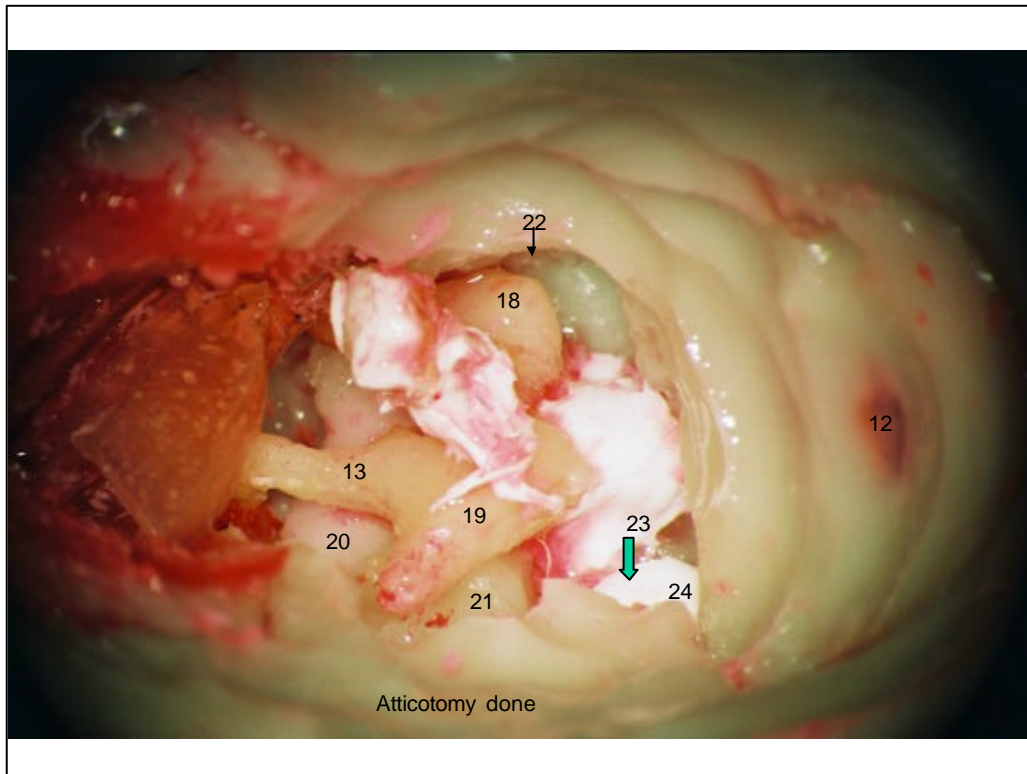
12 Dura shining through bone. **13** Long process of incus. **14** Bur 2.5mm. **15** Bone lateral to head of malleus. **16** Skin flap reflected into the anterior sulcus.

Continue drilling medially with progressively smaller burs until only a lamina covers the head of the malleus and the body of the incus. You will be surprised how much bone you need to remove to view the head of the malleus.



17 House curette

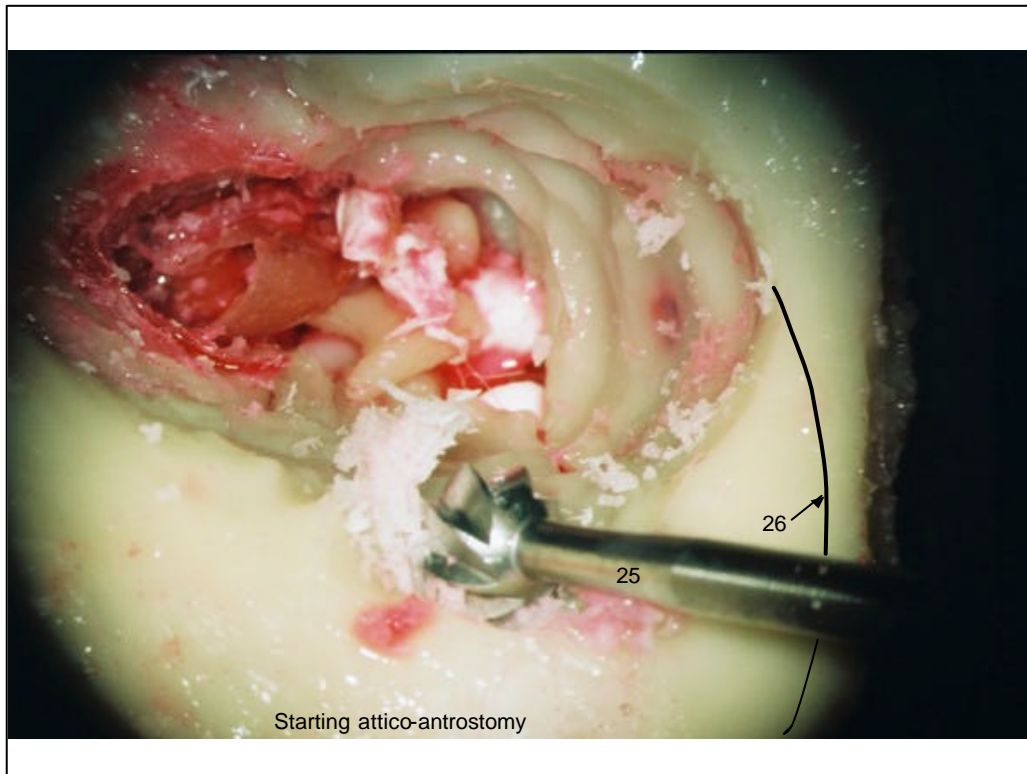
Reveal the delicate contents of the attic (epitympanum) with a curette. If the cholesteatoma is confined to lateral to the ossicles this may be all the bony removal required. If the cholesteatoma extends to the antrum then a modified radical mastoidectomy is required.



12 Middle fossa dura. **13** Long process of incus. **18** Head of malleus. **19** Body of incus. **20** Horizontal facial nerve. **21** Lateral semicircular canal. **22** Anterior epitympanum. **23** Arrow points to antrum. **24** Cholesteatoma extends beyond epitympanum.

Cholesteatoma is extending beyond the confines of the epitympanum, atticotomy is not sufficient to expose all the cholesteatoma, modified radical mastoidectomy is required.

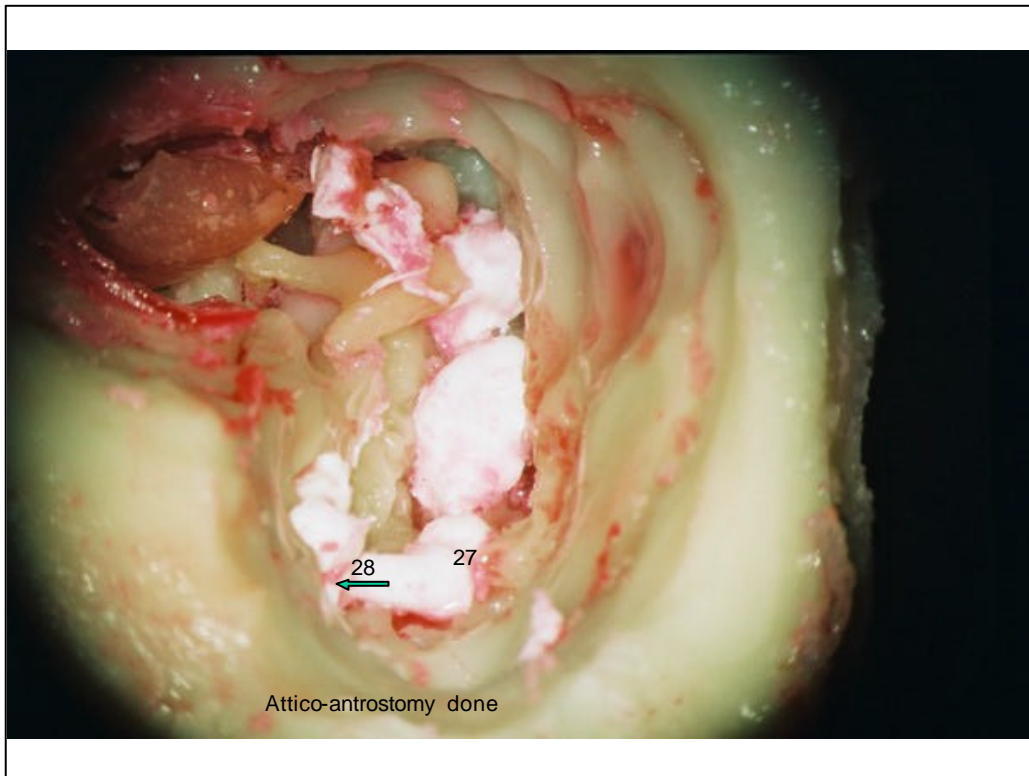
Attico-antroostomy



25 5.5mm cutting bur. **26** Superior limit of bone removal.

Attico-antrostomy

Take a 5.5mm bur and starting on the cortex drill medially to the antrum. This cavity is narrow and deep and if left like that is very unlikely to be self cleaning and will probably give the patient recurrent foul discharge and a cavity that is impossible to view or clean.



27 Cholesteatoma in the antrum. **28** Cholesteatoma extending down the central mastoid tract.

Attico-antrostomy completed but this surgery not adequate to expose all the cholesteatoma.