

جامعة ذي قار كلية التمريض

# Ear Exam

Step by Step guide to performing an Ear Exam

Prepare by

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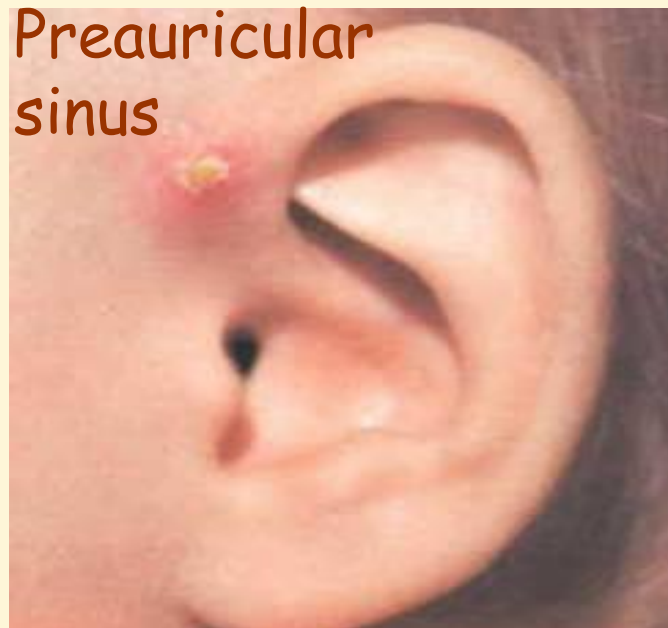
Aural atresia



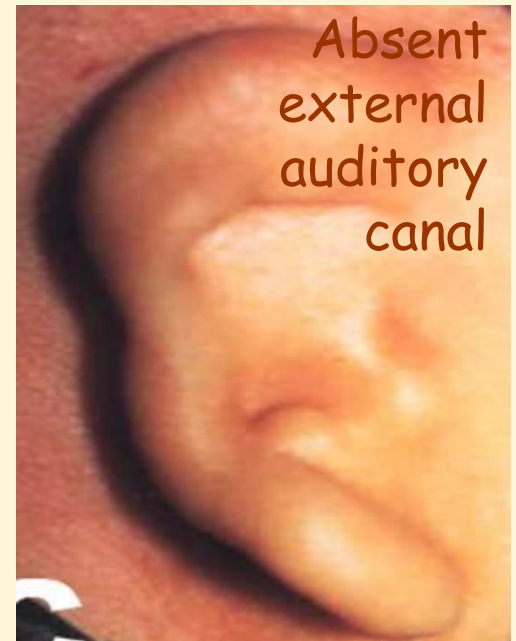
Accessory auricle



Tags



Preauricular sinus



Absent external auditory canal



Aural atresia

**Congenital aural anomalies due to defects of the 1st pharyngeal arch**

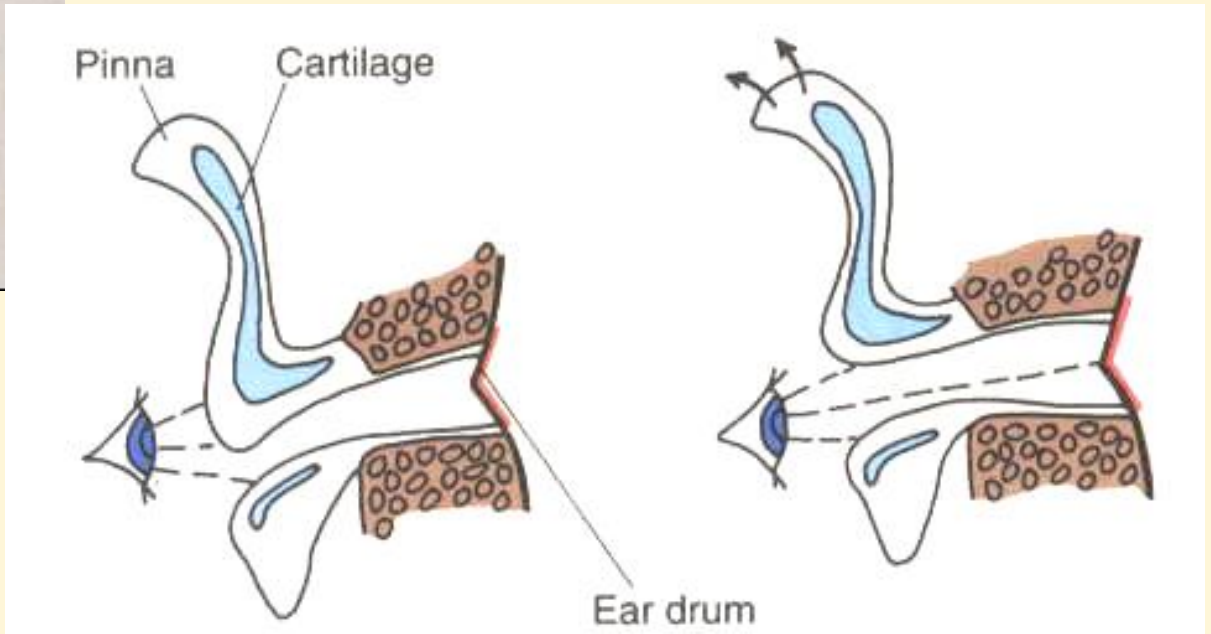
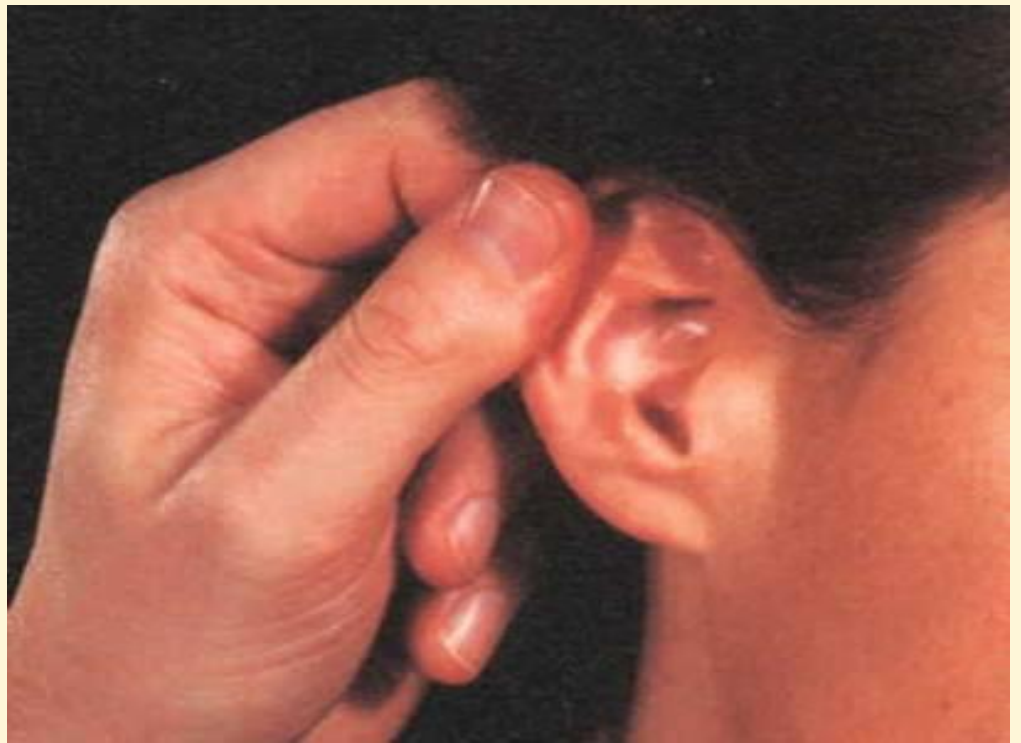
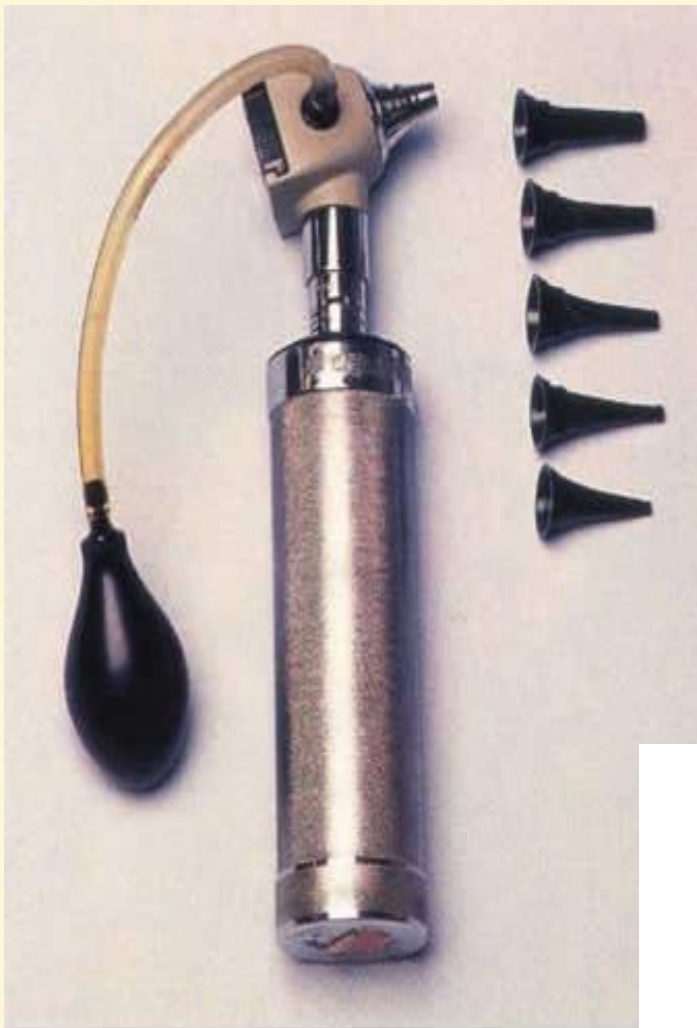


**Hematoma → Perichondritis → Cauliflower  
auris ear**

# Herpes Zoster Oticus (Ramsay-Hunt Syndrome)

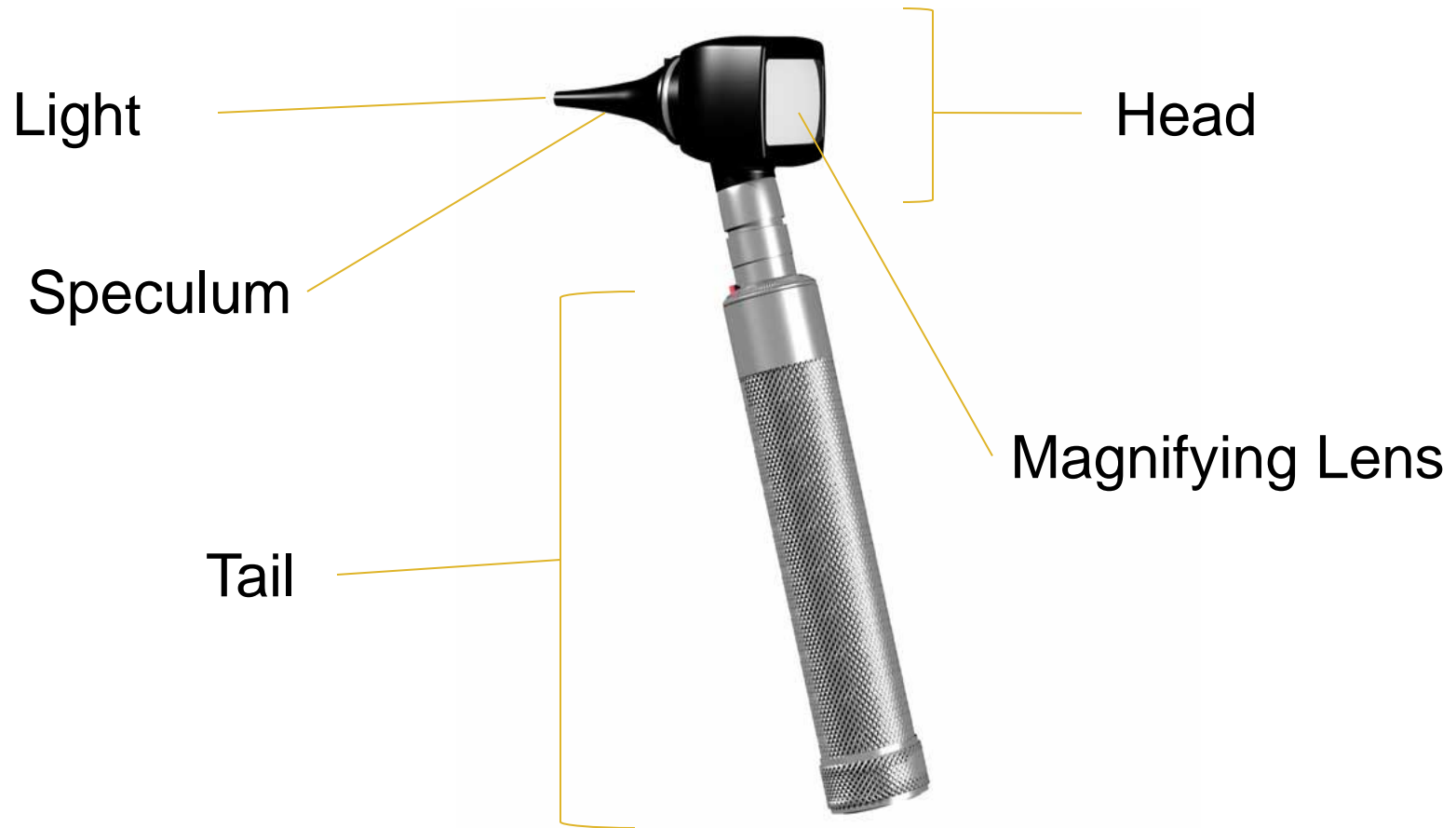


**Pain + Facial paralysis + vesicles**



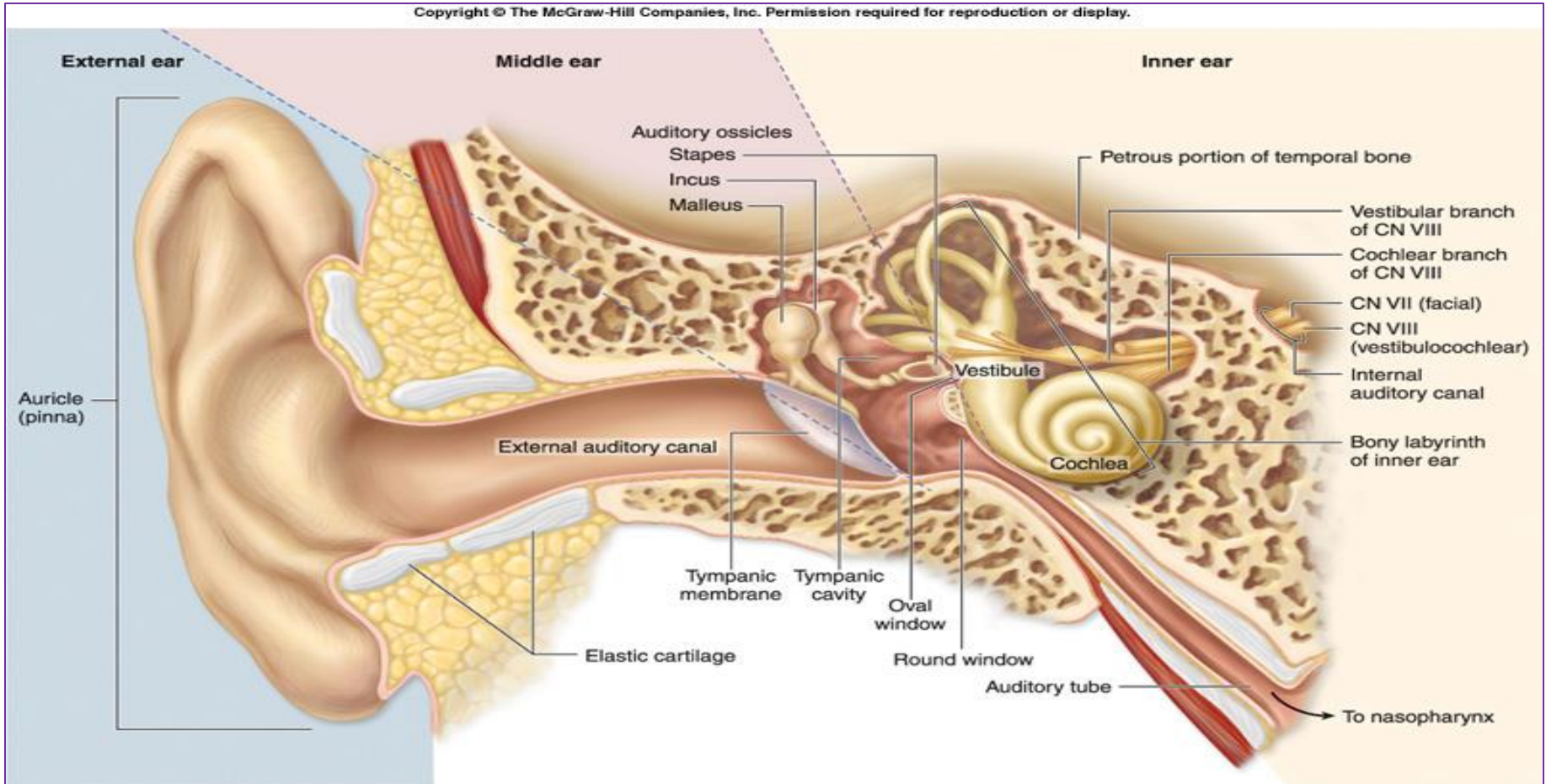
**Otoscope**  
examination of  
the ear

# Tool: Otoscope



# Anatomy of the Ear

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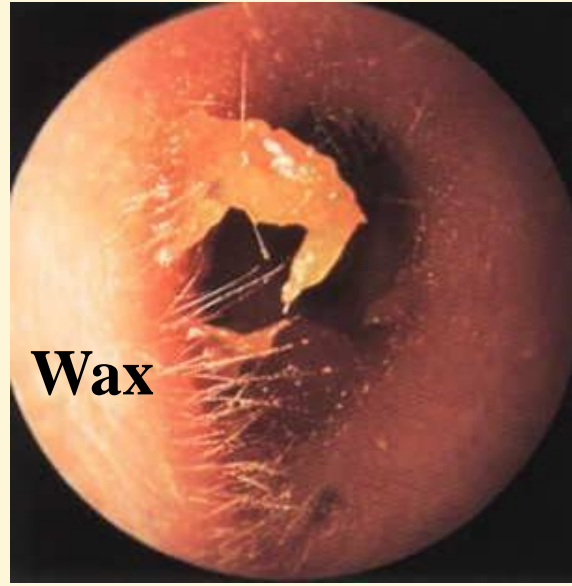


- An ear exam can note any abnormalities in the external ear, tympanic membrane, and the middle ear

**Hairs**



**Wax**

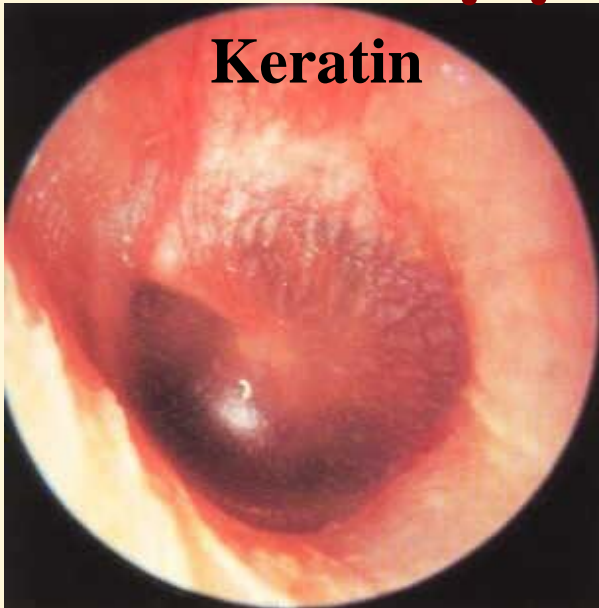


**Hump**

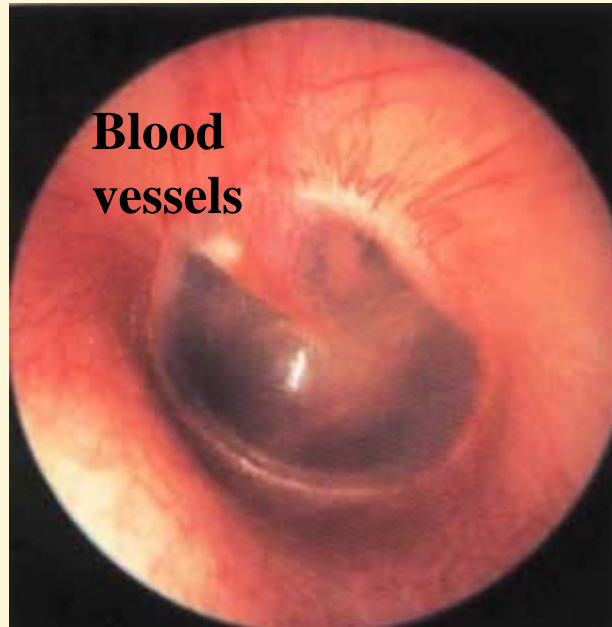


# Otoscopy (normal findings)

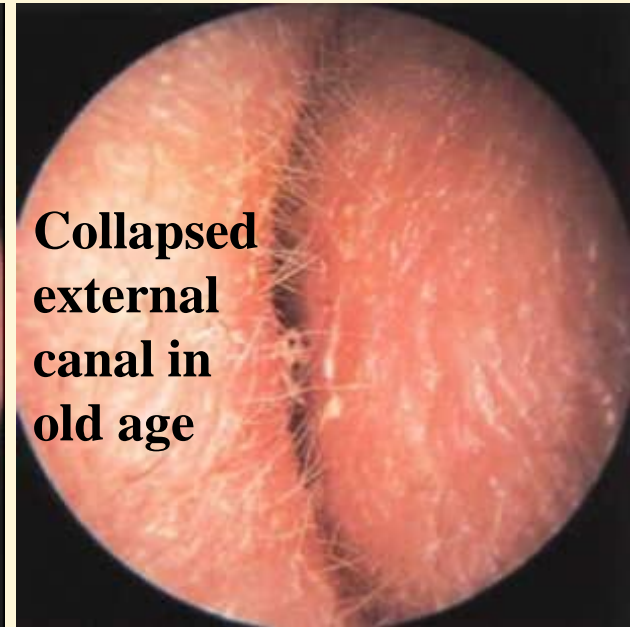
**Keratin**



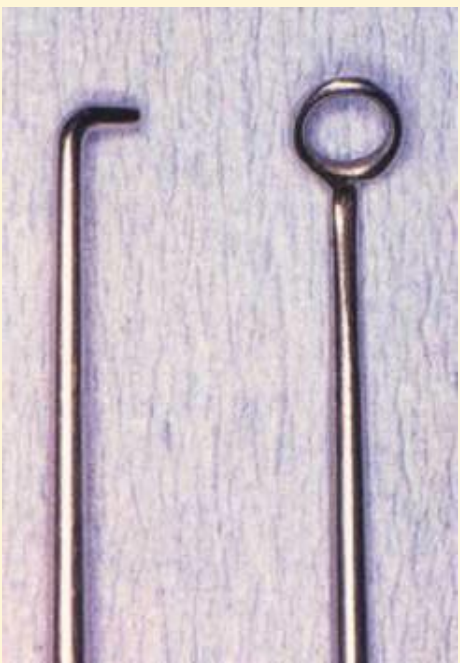
**Blood vessels**



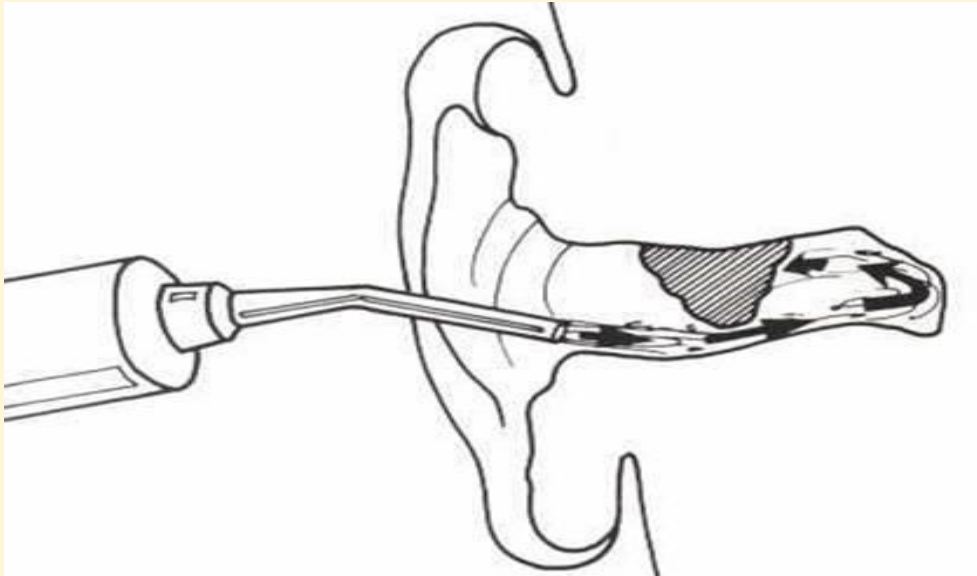
**Collapsed external canal in old age**







# Removal of ear wax

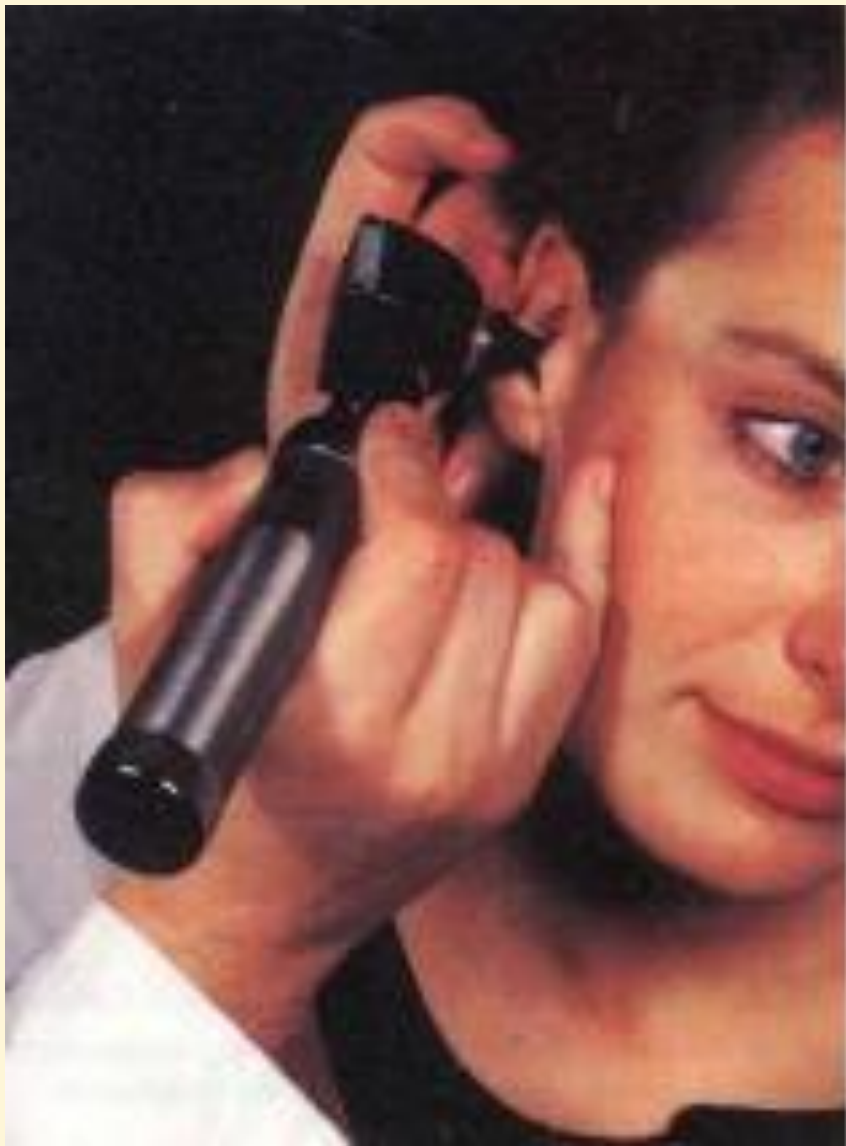


# Step 1: Have the patient sit down

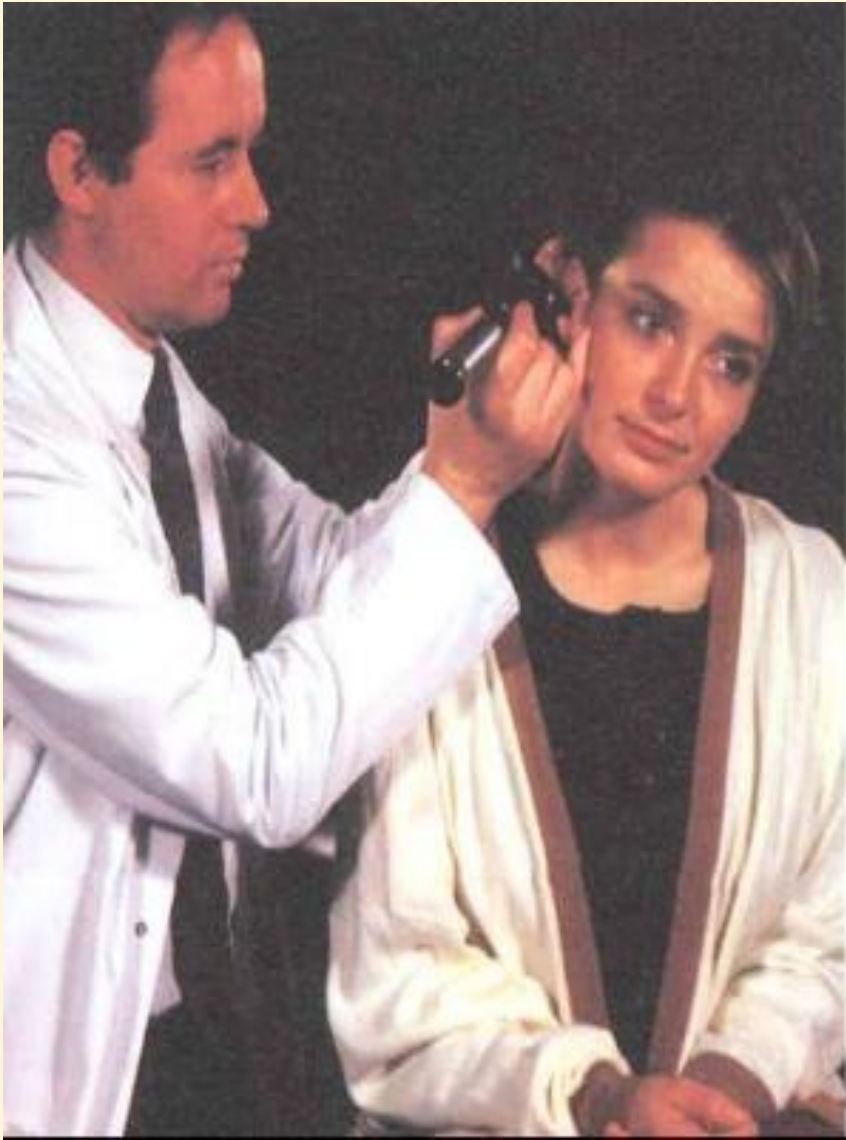


Getty Images

- Have the patient sit down (May be best for the patient to sit on the desk so the ear is in a convenient position for the doctor)
- Have the patient slightly tilt his head away from the doctor
- Start with the “good” ear – one without problems or infections (if any)

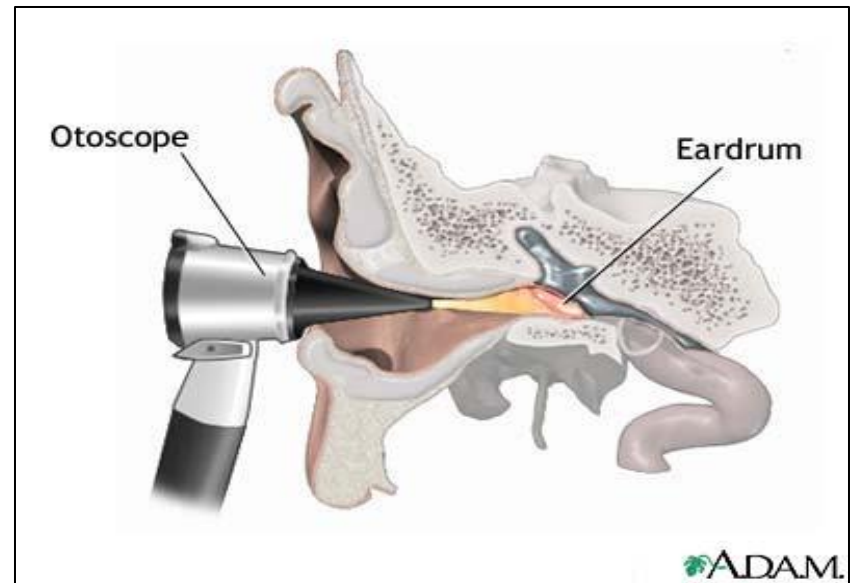


**Proper technique**



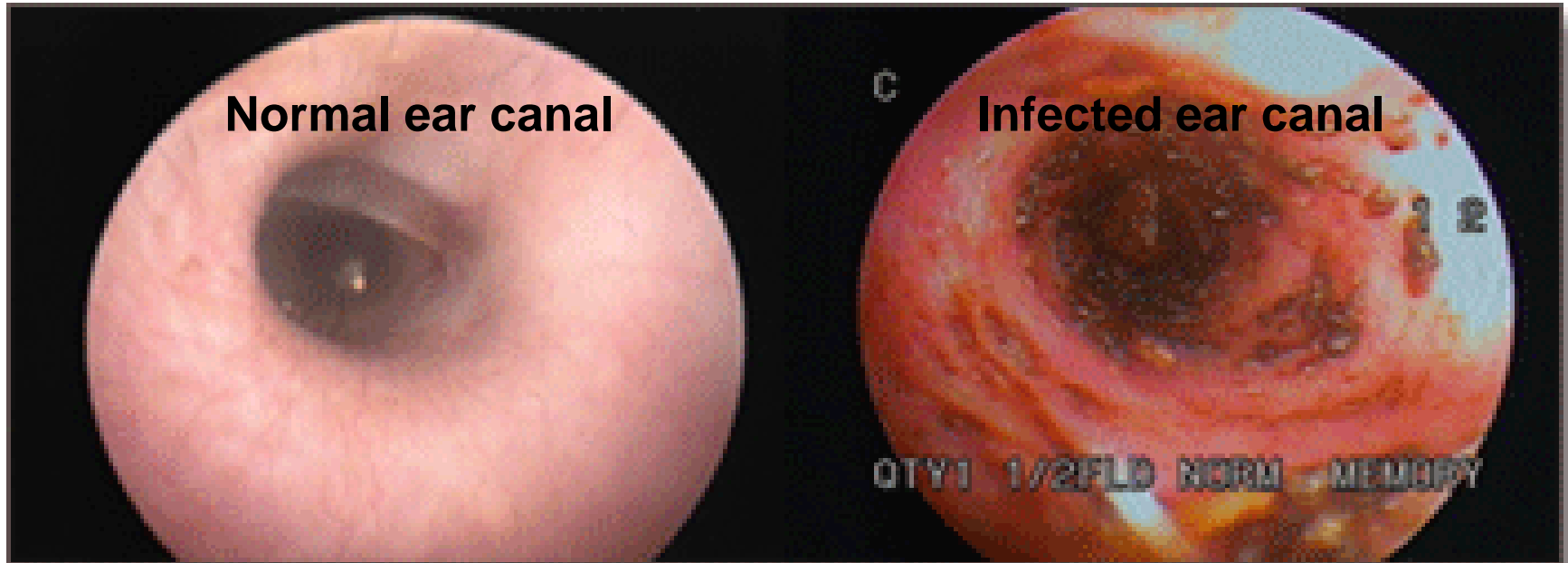
Never examine patient while standing

## Step 2: Holding the otoscope



- Hold the otoscope in one hand and turn on the light
- Gently insert the speculum into the ear
- With the other free hand, gently pull up, out, and/or forward on patient's ear to straighten out the ear canal for easy viewing

## Step 3: Examine the External Canal



- Examine the external ear canal and note any abnormalities – such as inflammation, discoloration, and/or any signs of infection
- Examine the external ear canal without the otoscope as well

## Step 4: Examine the Tympanic Membrane

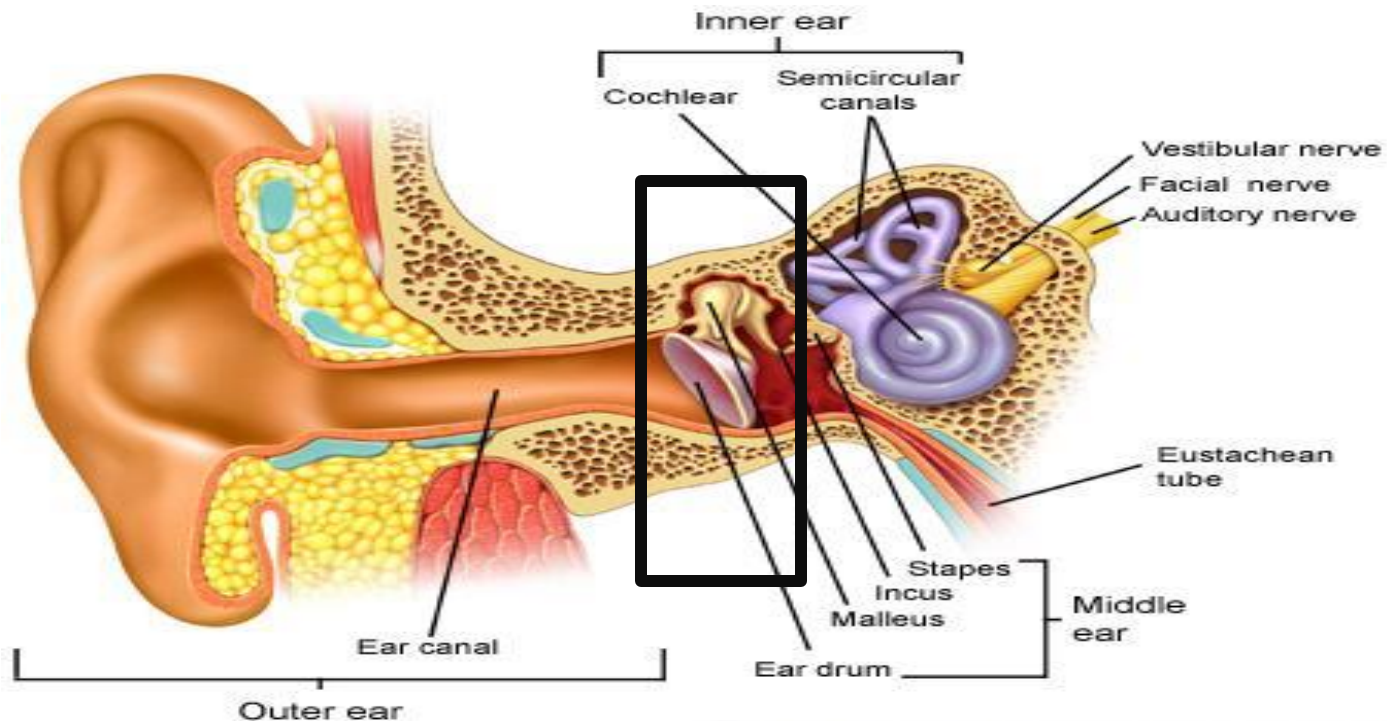


Normal tympanic membrane



Ruptured tympanic membrane

# Step 5: Examine parts of Middle Ear

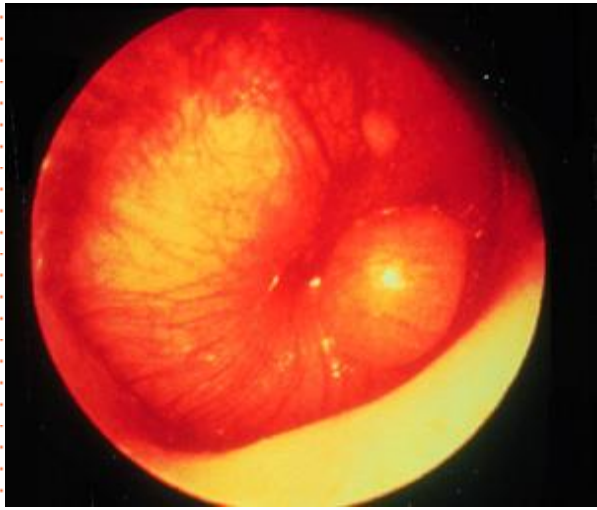


- Look for the Malleus or the handle of the Malleus\*, and note any abnormalities

\* May be obscured by debris or ear wax



# Disorders of the Ear



## Acute Otitis Media

- Infection of the Middle Ear
- Presents with bulging tympanic membrane
- Increased vascularity



## Otitis Media with Effusion

- Fluid buildup in the middle ear



## Chronic Otitis Media

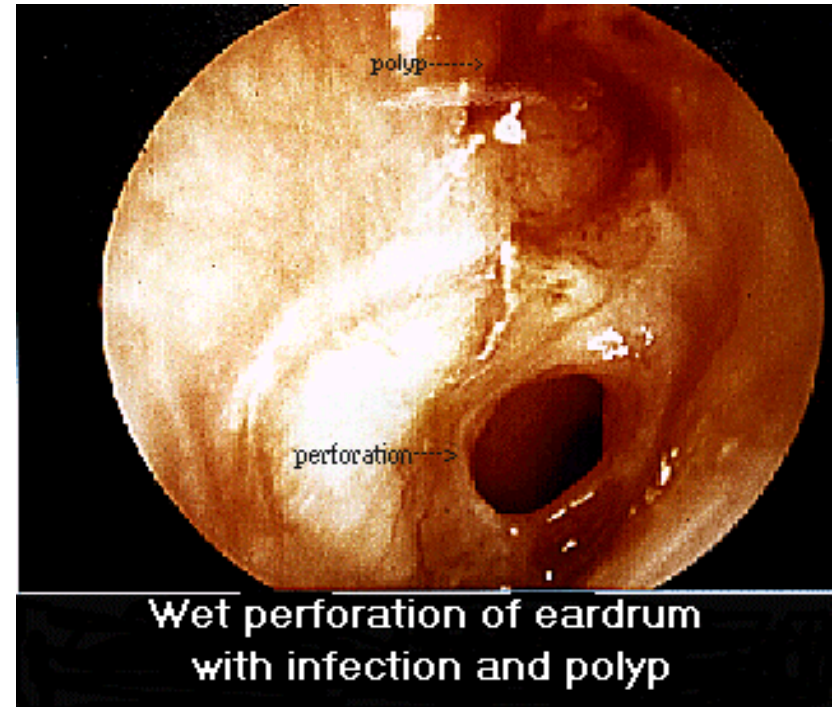
- Chronic, recurrent infection of the middle ear
- Eardrum is perforated and ear recurrently drains

# Disorders of the Ear



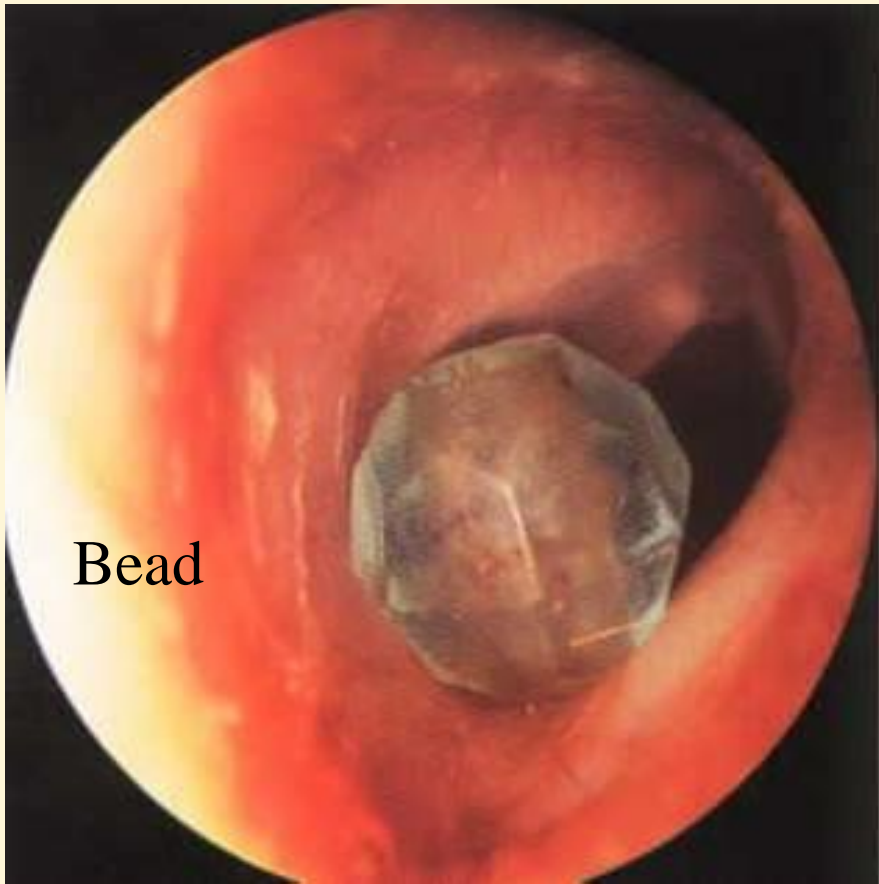
Cholesteatoma

- Skin cyst behind the ear drum



Perforation of Eardrum

- Hole in the Ear drum

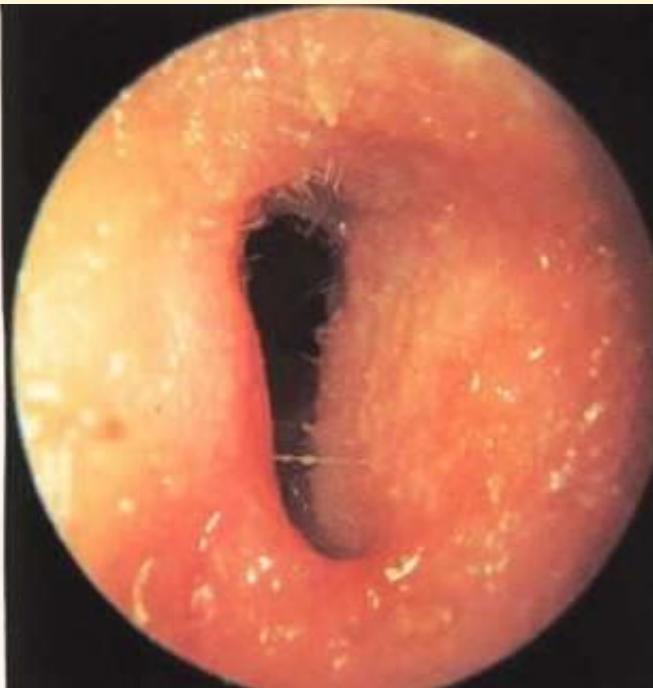


Bead



Bee

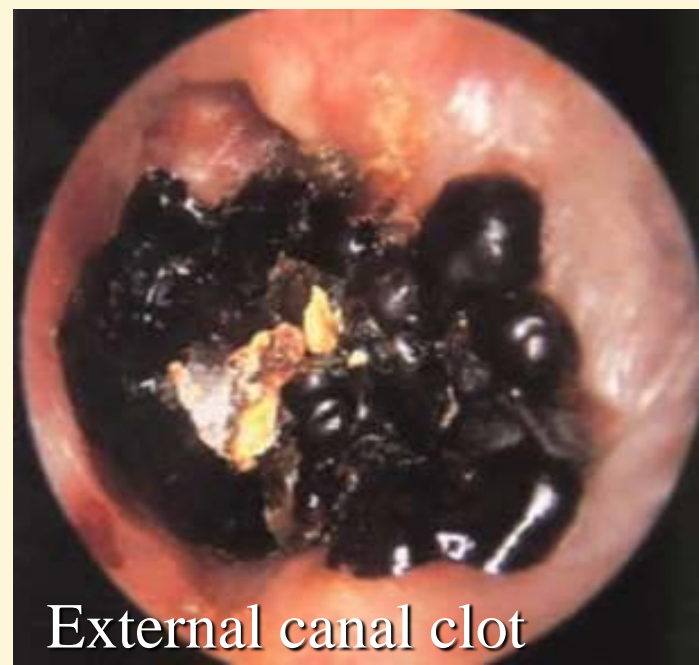
# Foreign Bodies



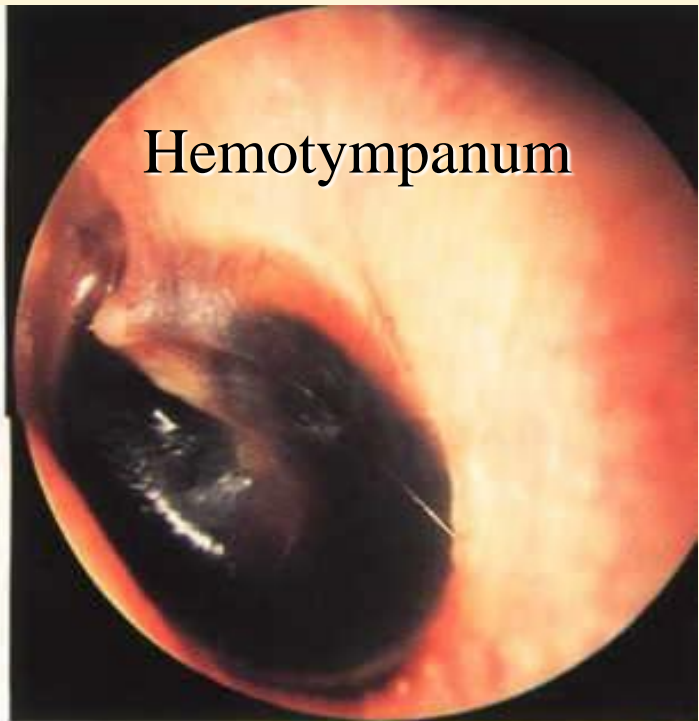
**Acute  
External  
Otitis  
(hyperemia  
& edema)**



**Chronic  
External  
Otitis  
(skin  
maceration &  
keratosis)**



External canal clot



Hemotympanum

**T  
R  
A  
U  
M  
A**



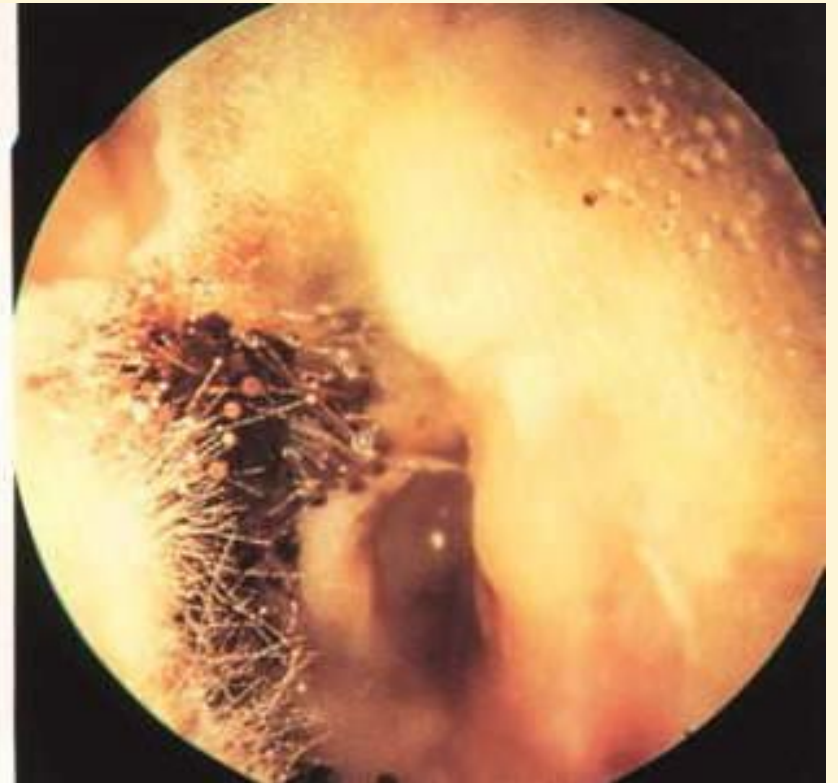
Perforation

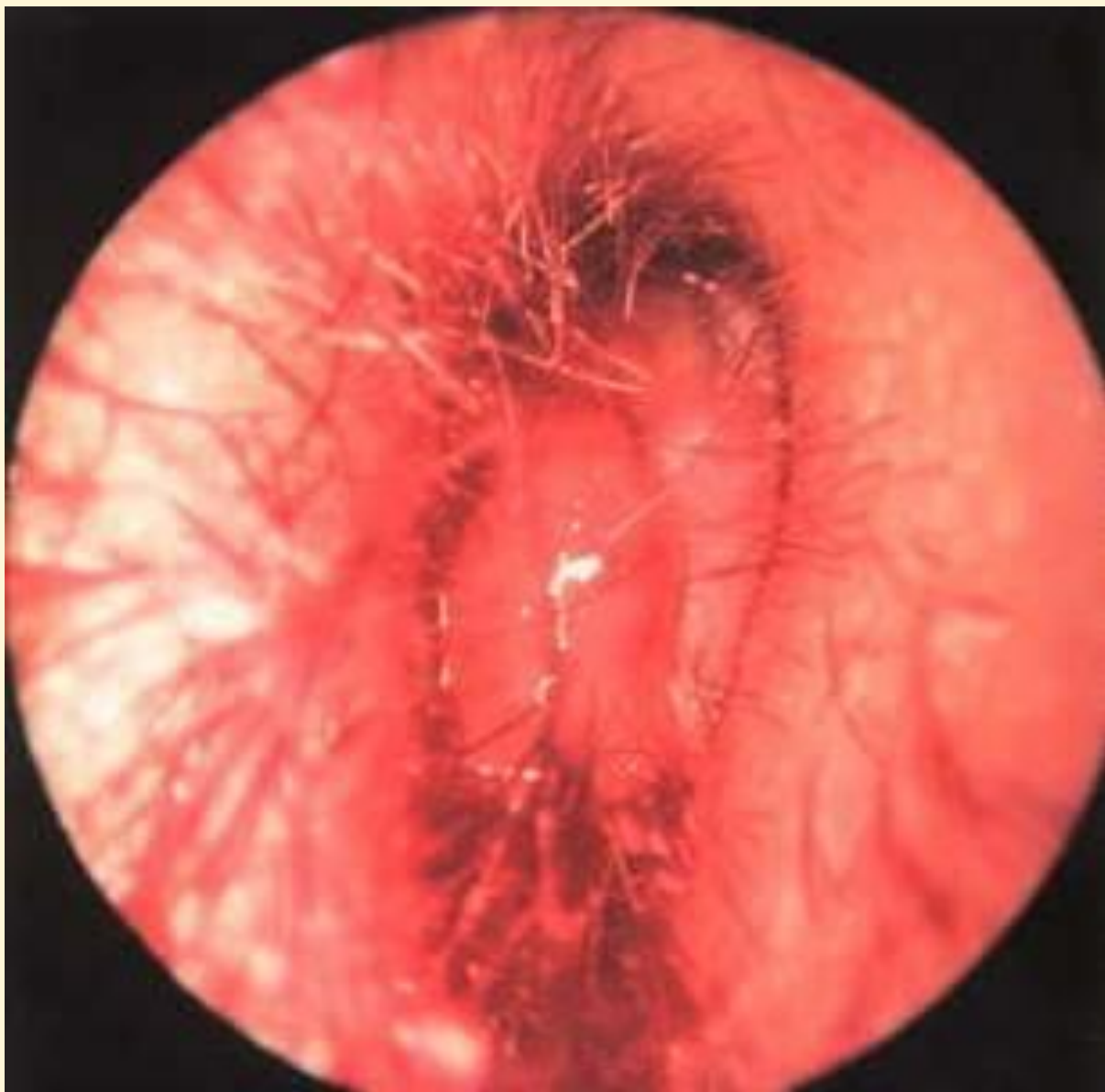


Self-inflicted perforation

# Otomycosis

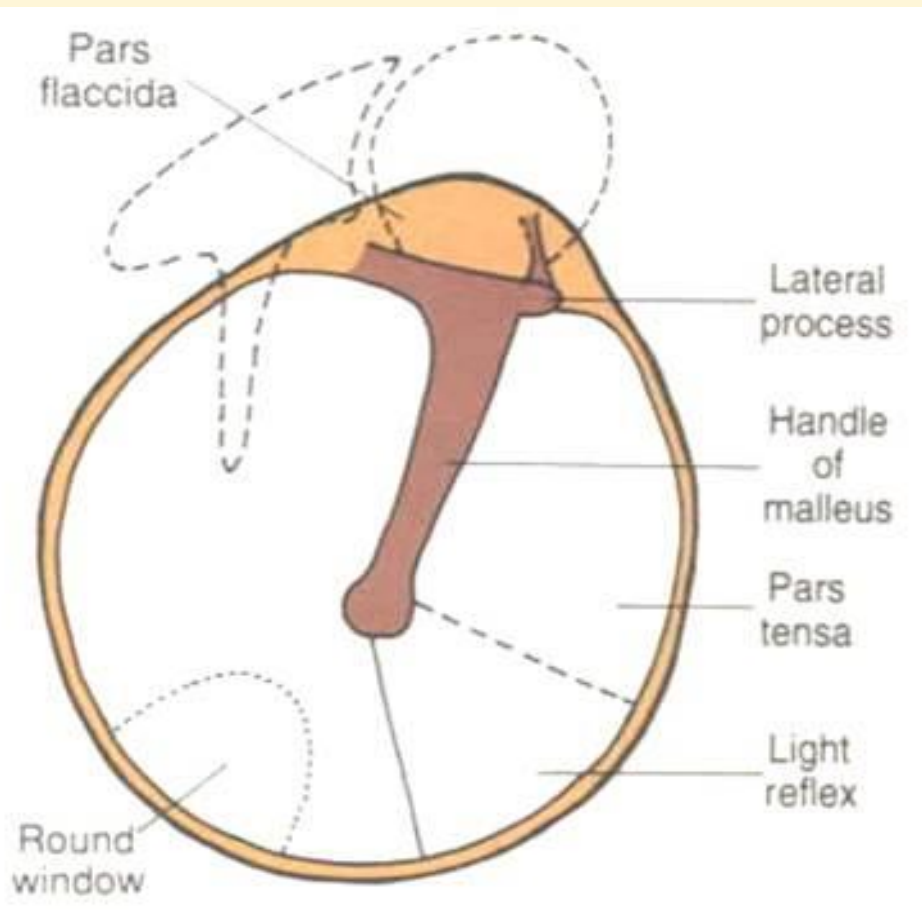
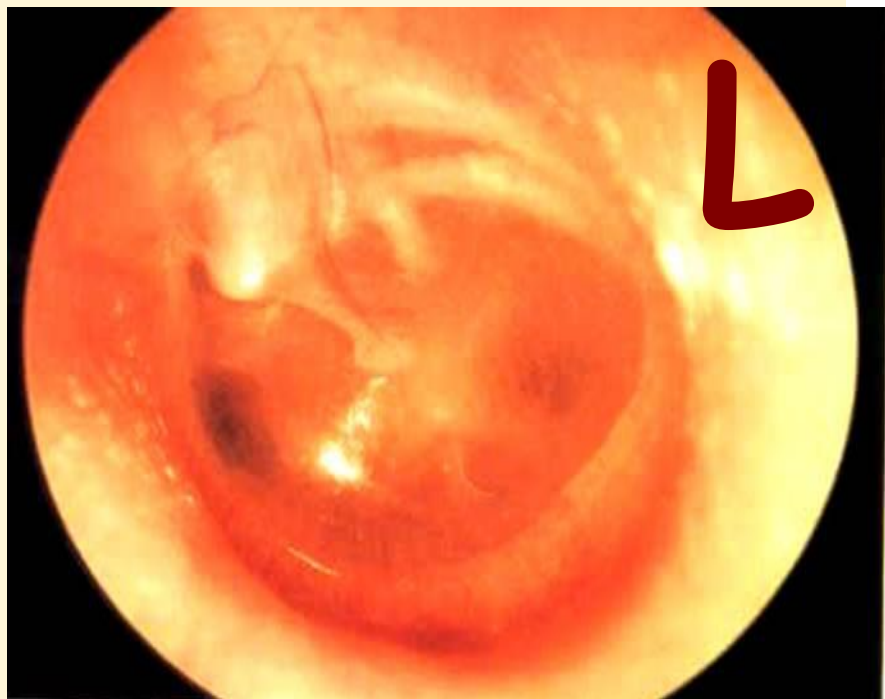
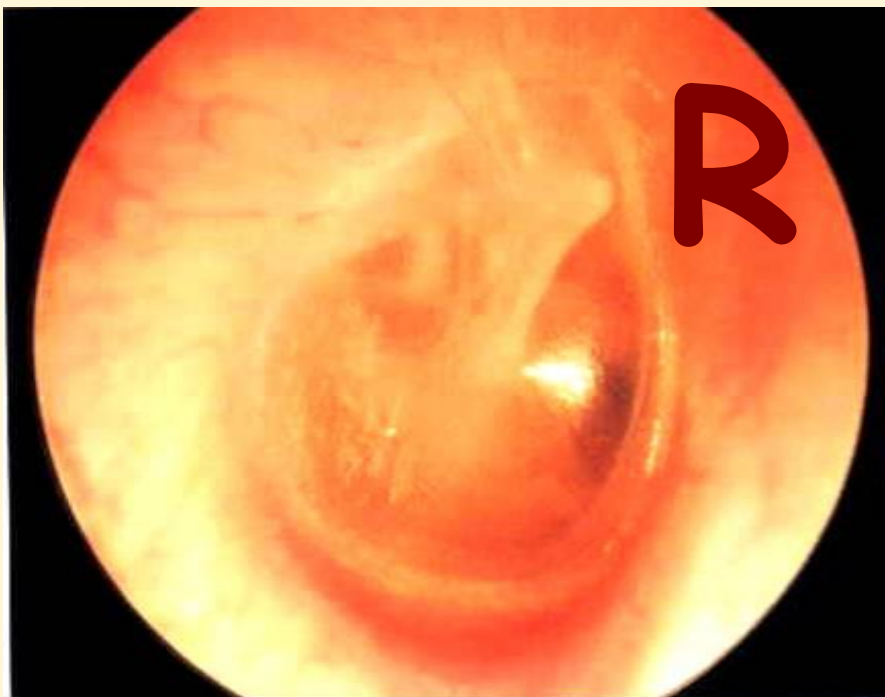
fungal ball wet-newspaper like appearance





# Diabetic Ear

necrosis &  
granulations  
on the floor  
of the  
external  
auditory canal

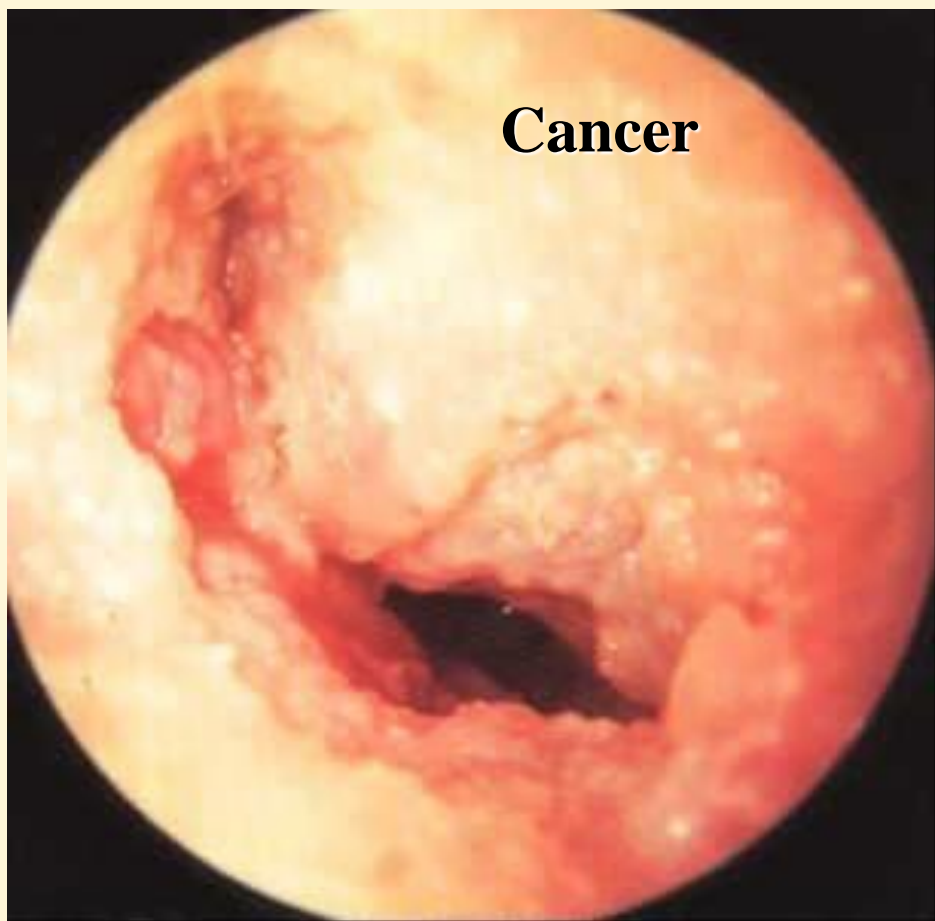


# Tympanic membrane





**Exostosis  
Osteoma**

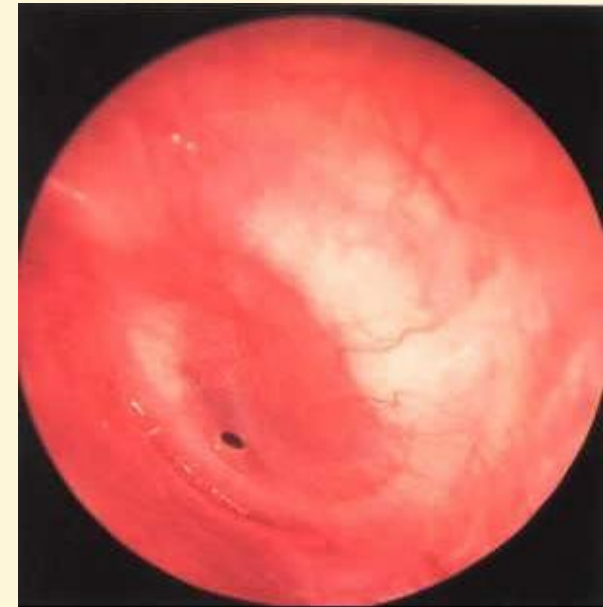


**Cancer**

# Neoplasms of the external auditory canal & auricle

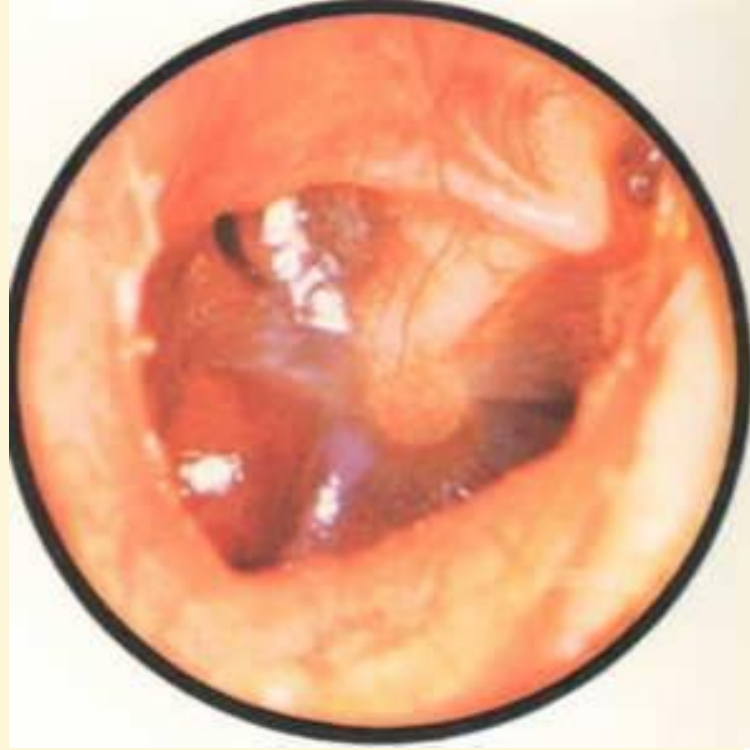


**Rodent ulcer**



# Acute Otitis Media

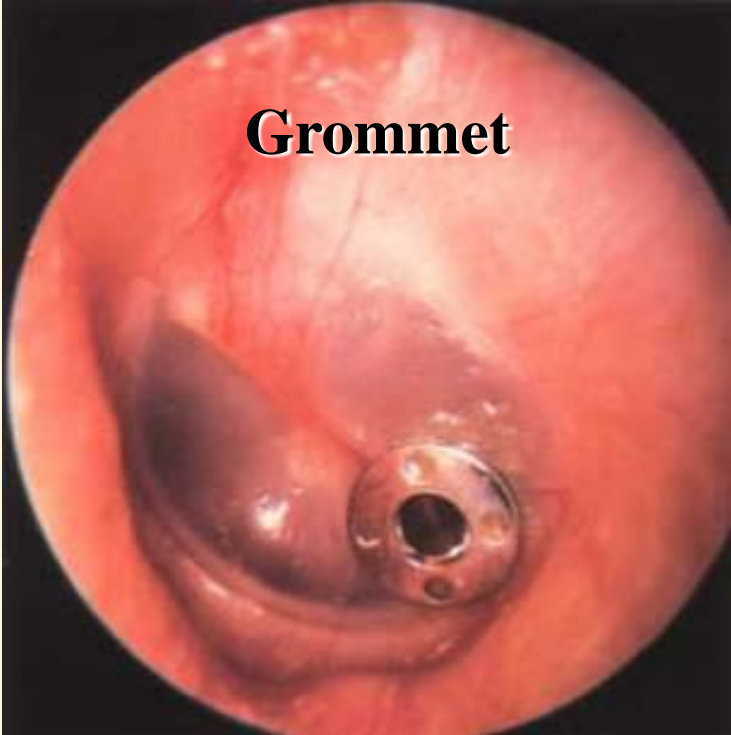
(hyperemia, bulging, perforation & finally drainage)



**O  
M  
E**

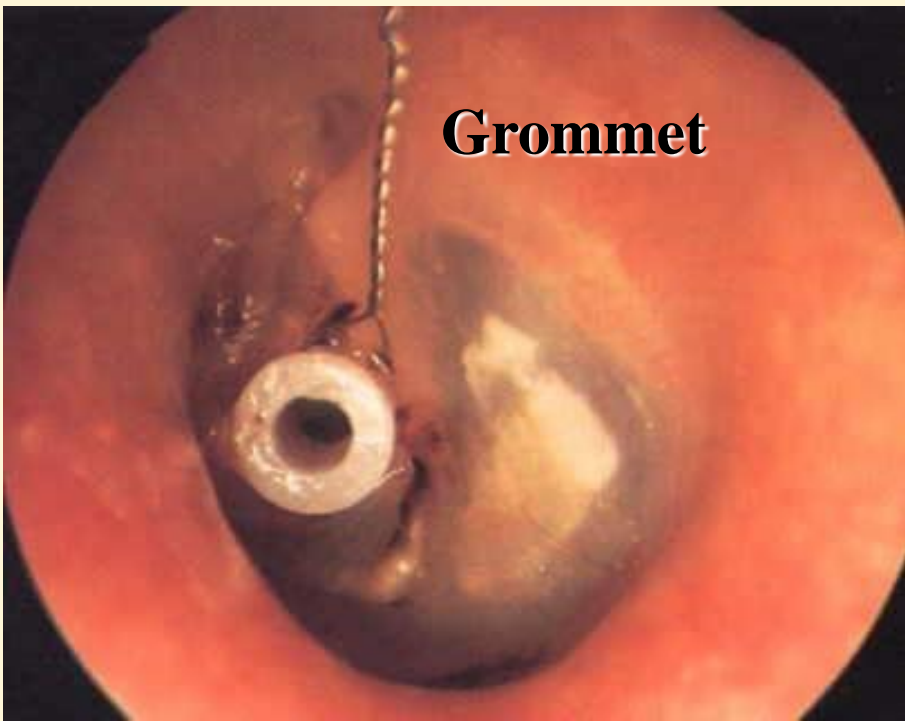


**Otitis media with  
effusion (OME)  
retracted tympanic  
membrane, fluid level,  
some air bubbles, no  
perforation)**

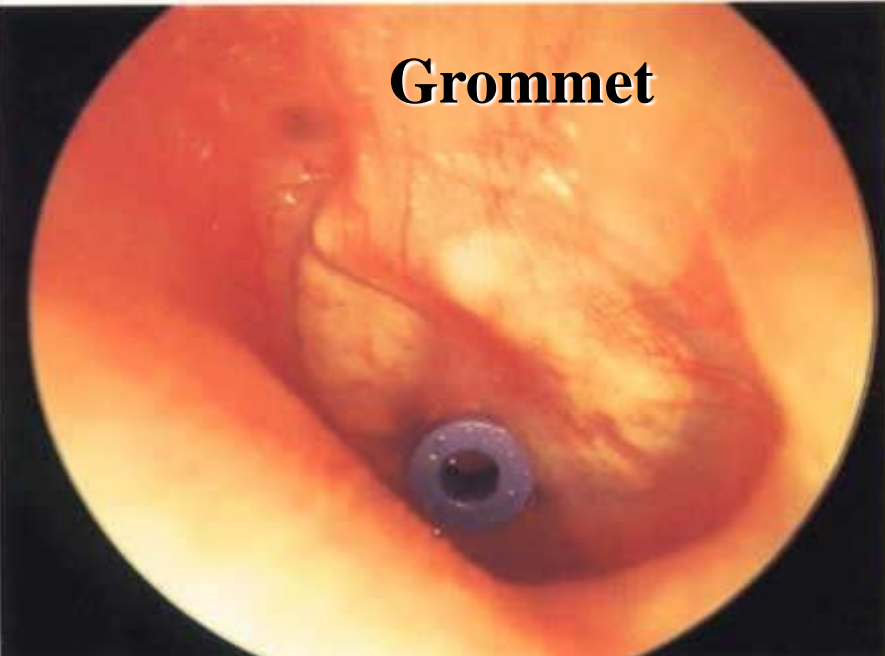


**Grommet**

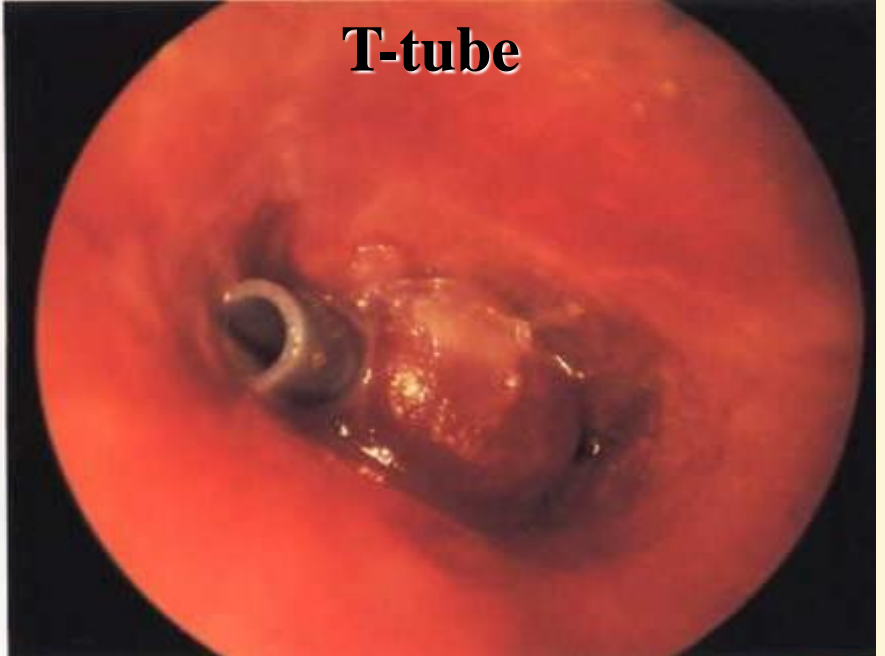
**T  
u  
b  
e  
s**



**Grommet**



**Grommet**



**T-tube**



**Retraction  
pocket**



**Tympanosclerosis**

# Sequelae of non- resolved otitis media



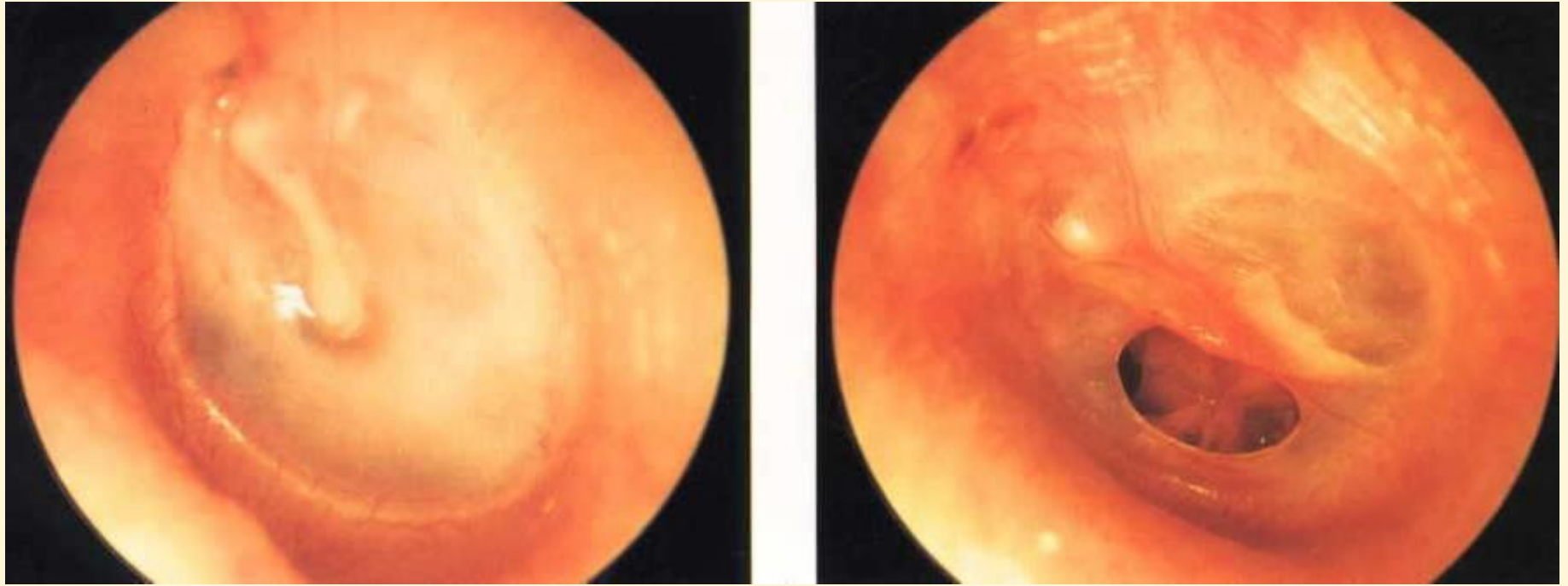
**Atelectasis**



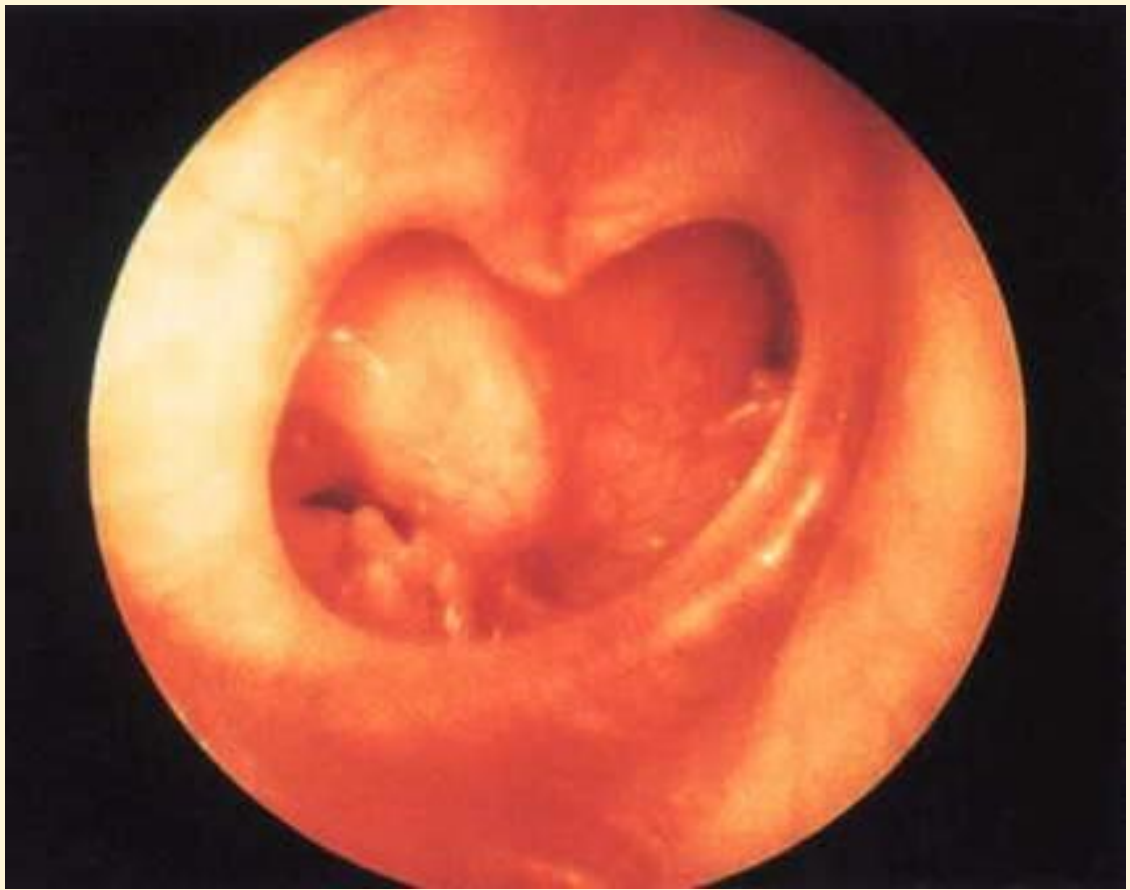
**Attic  
erosion**



**Bullous  
Myringitis**  
bullae on  
outer  
surface of  
tympanic  
membrane

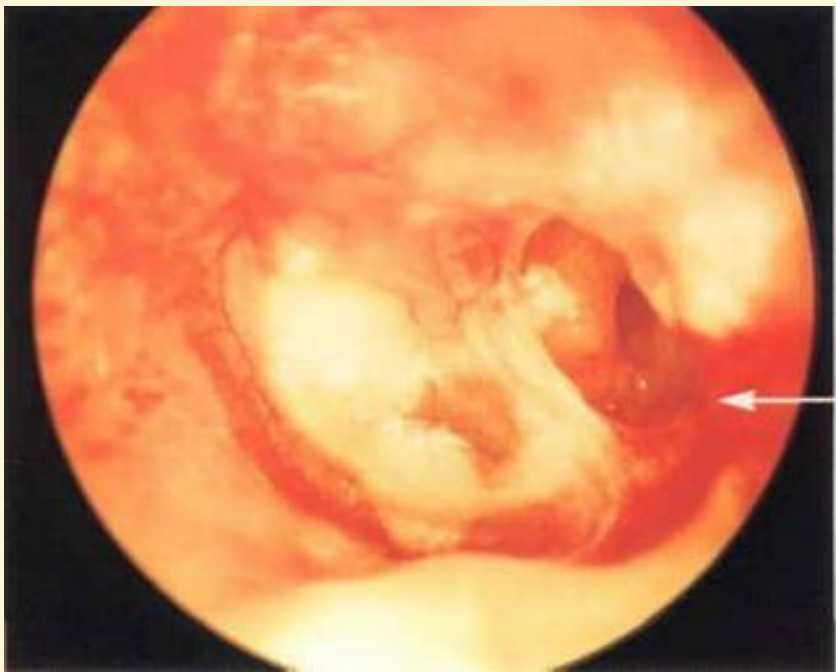


**Perforation of the tympanic  
membrane** (picture on the right)



**Tubotympanic otitis  
media  
(central perforation)**



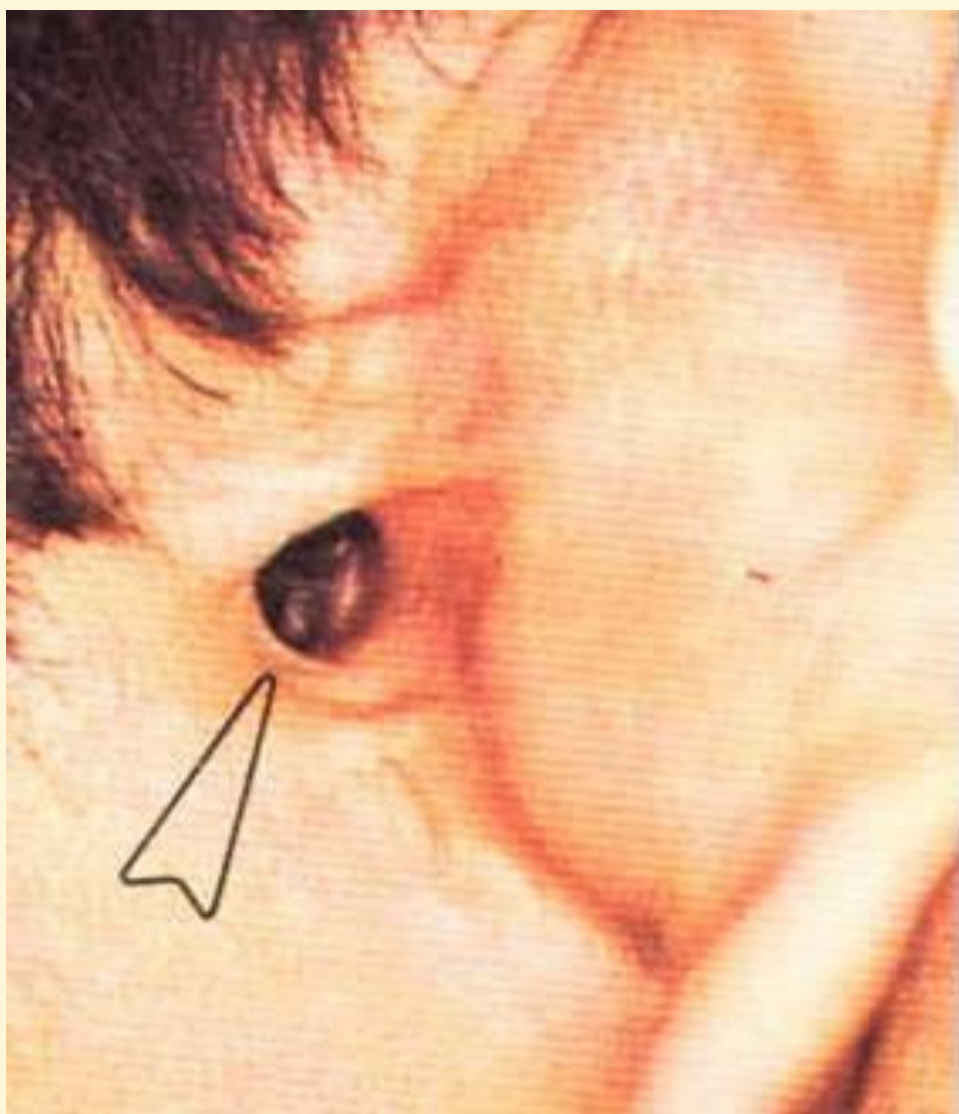


**Atticoantral otitis media (cholesteatoma)(marginal perforation)**

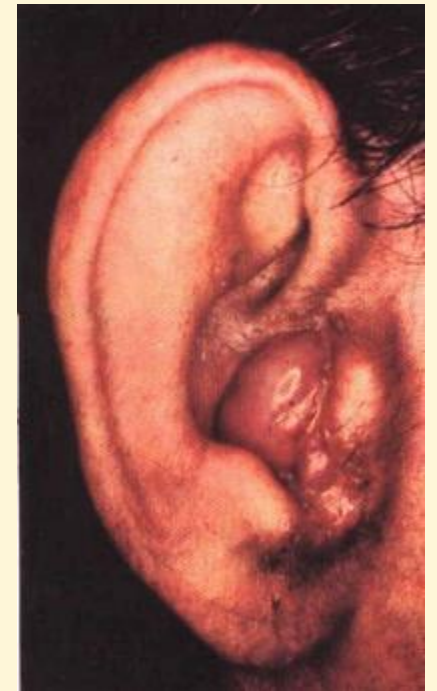
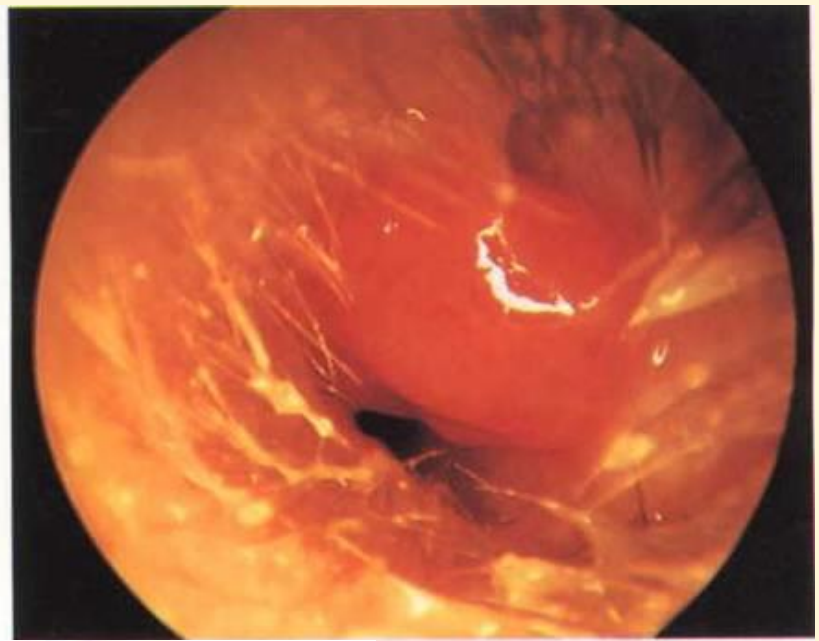


## **Cholesteatoma**

**scanty offensive purulent aural discharge from an attic or posterosuperior marginal perforation with possible cranial or intracranial complications**



**Mastoid abscess  
& fistula**



**Aural polyp**  
pedunculated middle ear mucosa  
or granulation tissue

# Glomus

Pulsating  
tinnitus &  
a red mass  
behind an  
intact  
tympanic  
membrane



Otoscopic examination in  
Otosclerosis:

Schwartz's sign  
(flamingo red)

Usual finding  
is a normal  
tympanic  
membrane

