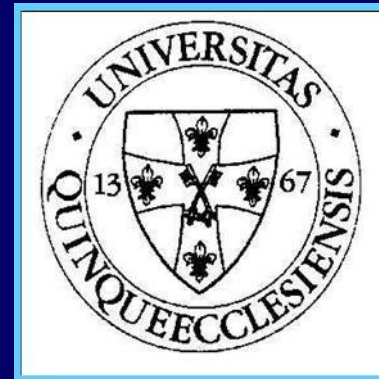
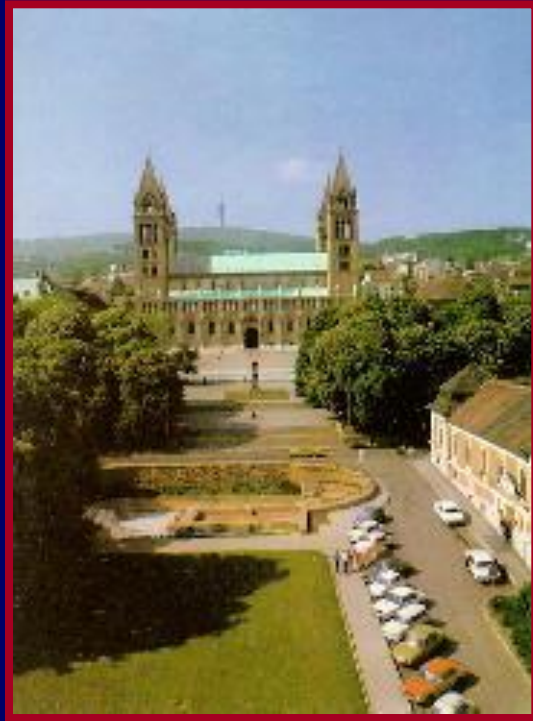


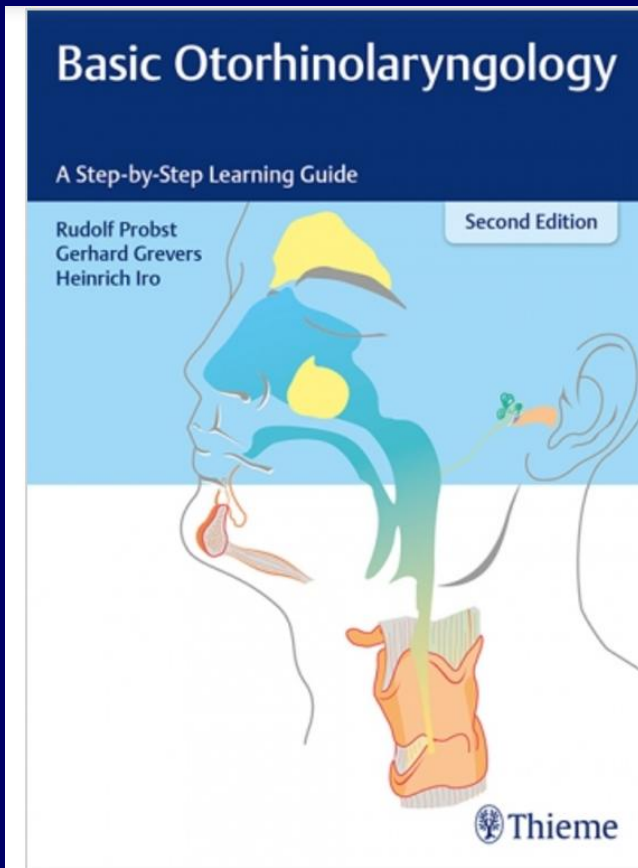
Diseases of the external auditori canale, pinna and the tympanic membrane

Univ. ENT Clinic Pécs



Prof. Dr. Imre Gerlinger

Recommended reading

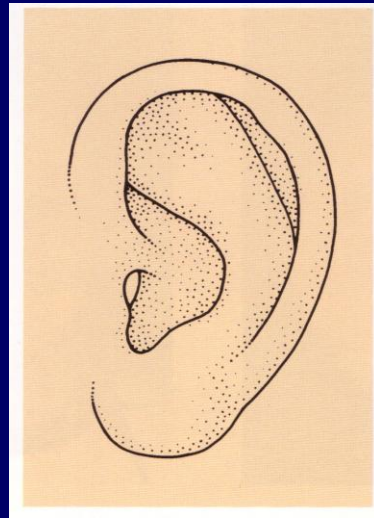
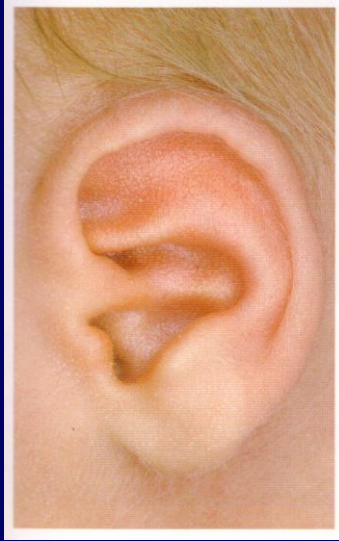


Basic Otorhinolaryngology

A Step-by-Step Learning Guide

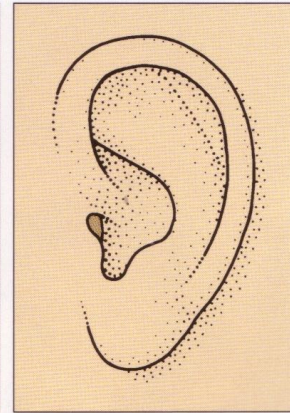
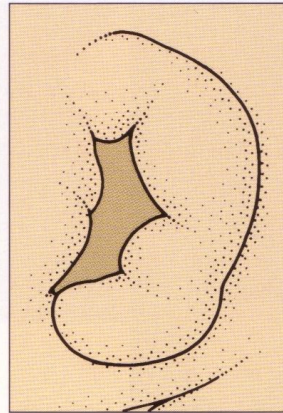
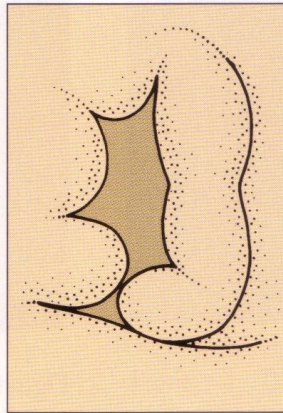
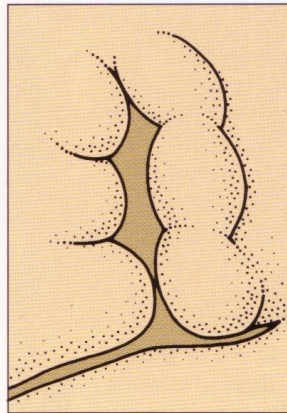
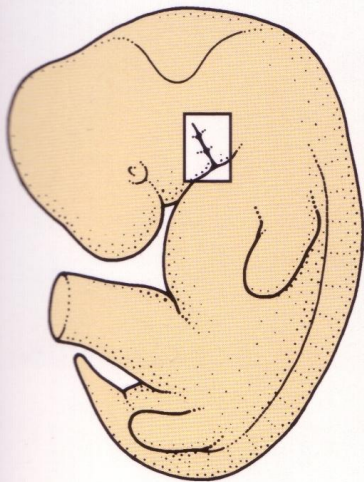
Probst | Grevers | Iro

Publication Date:	October 2017
Edition:	2
Pages:	430
Illustrations:	635
Format:	Paperback/softback
ISBN:	9783131324429



- 6 tuber at the dorsal part of the 1st ph. pouch
- 4-6. i.u. weeks
- Final size: 9 years of age

Development of the pinna

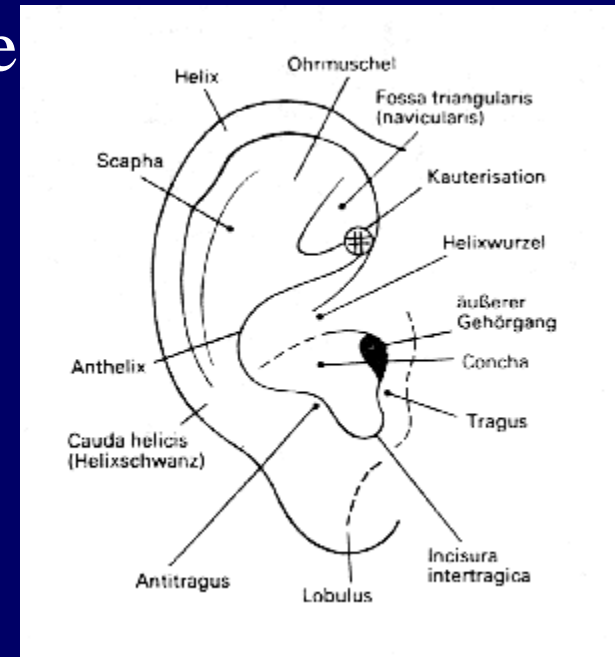


Cartilagenuos sceleton of the pinna

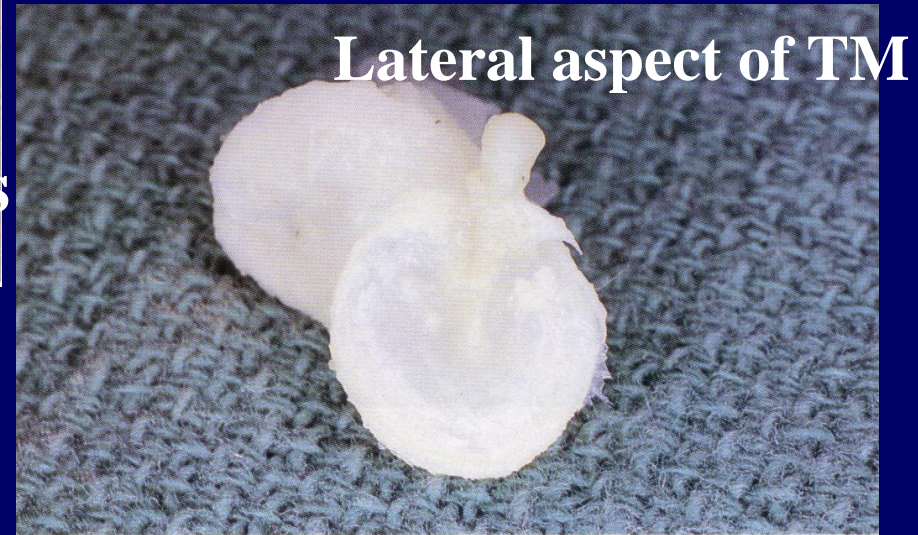
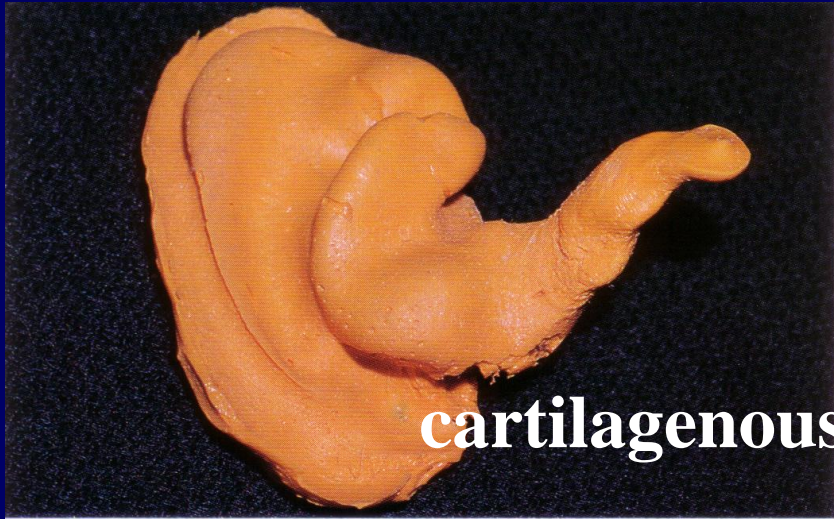
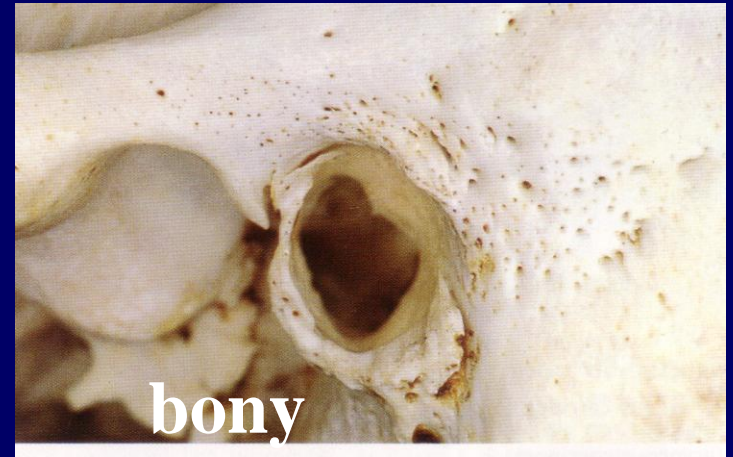


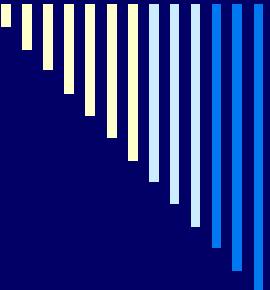
□ Shape is determined by the fibroelastic cart. sceleton.

□ Surgical aspects!



Ext. auditory canale

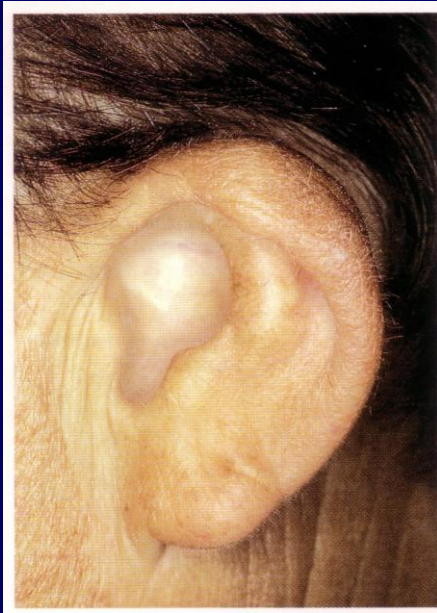




What are you going to learn today (pinna)?

- Congenital anomalies
- Traumas
- Cerumen, foreign bodies
- Inflammations of the ext. aud. canale
- Inflammations of the TM (myringitis)
- Tumours

Congenital diseases of the pinna



- Atresia: closed ext. aud. canale



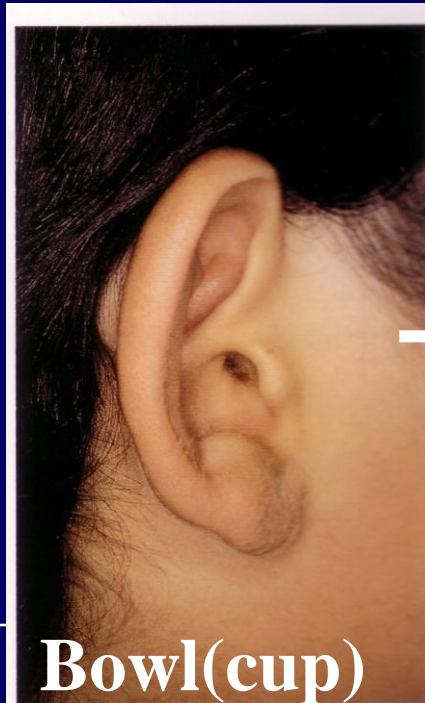
- Microtia: pinna underdeveloped, ext. aud. canale: dead end or underdeveloped.

Deformities of the pinna

elevated



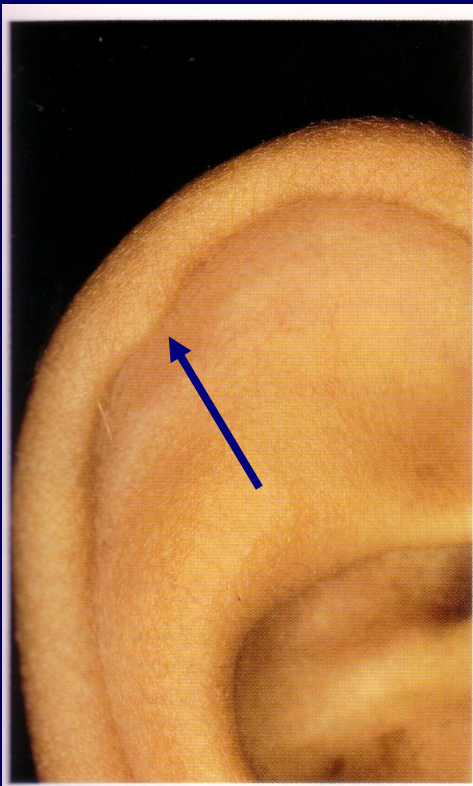
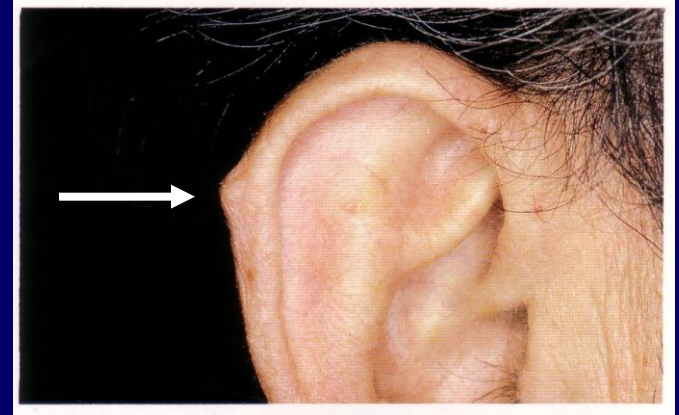
Helix ill. anthelix deformity
frequent, autosomal dominant
inheritance



overdeveloped,
projecting helix
crease



Darwin nodule

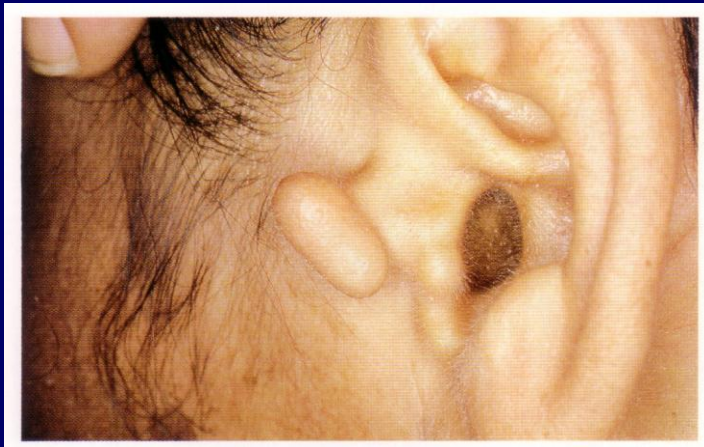


- ❑ Helix: upper posterior part, small cart. nodule.
- ❑ Autosomal dominant inheritance, changing expressivity.
- ❑ Occasionally at the convex part of the helix.

Cong. anomalies of the pinna 1.



- Cong. pedicled dermal appendix in front of the tagus.



- Accessory pinna, with cart. skeleton, remnant of one of the 6 cong. tubers.

Cong. anomalies of the pinna 2.

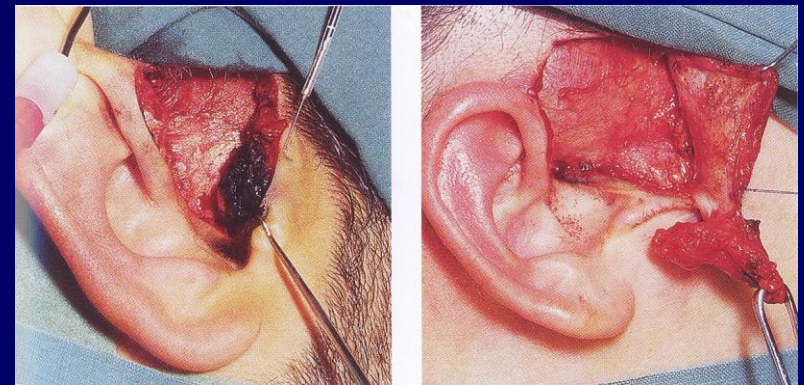
- Preauricularis recess, closing disorder of the 6 tubers, closing problem of the ph. pouch. In front of the anterior helix. Autosomal dominant inheritance, changing penetrancy.
- Preauricular sinus. Deeper, covered with epithelium, cave chronic infection.



Infected preauricular sinus



**Diverse preauricular
appearance**



excision

Congenital anomalies of the pinna 3.



- ❑ Preauricular cyst.
Opening of the sinus is closed, ceratin is produced continuously.
- ❑ Infected preauricular cyst.
Mini abscess.

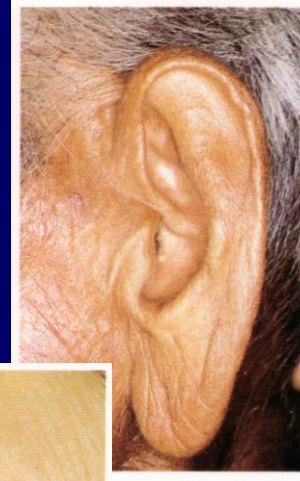


Congenital anomalies of the pinna 4.

Collaural fistula



Elongated lobule (dominant)



Creased lobule (obstructiv coronaria disease)



Missing lap (recessive)



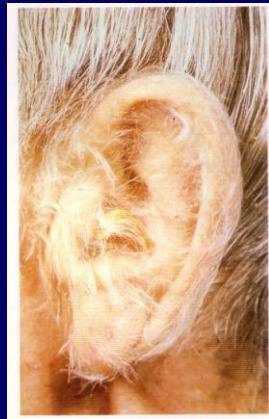
Heary problems around the pinna

heary lobulus



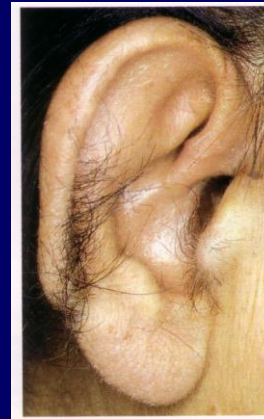
fluff

Hypertrichosis lanuginosa acquisita



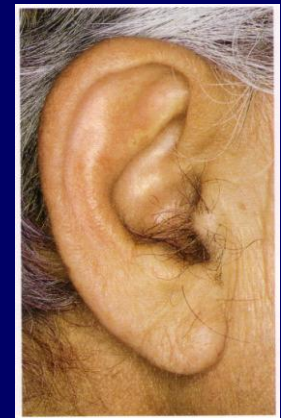
drugs, malignancy, metaboblic diseases

Heary pinna



Lower part of pinna, Y chromosome, elderly people

heary tragus



Secondary gender character, (tragos-goat)

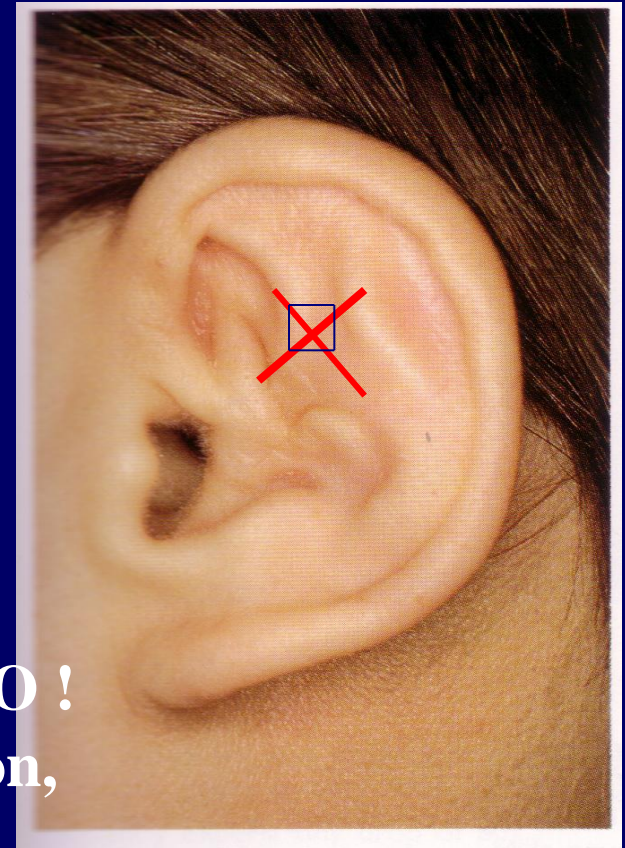
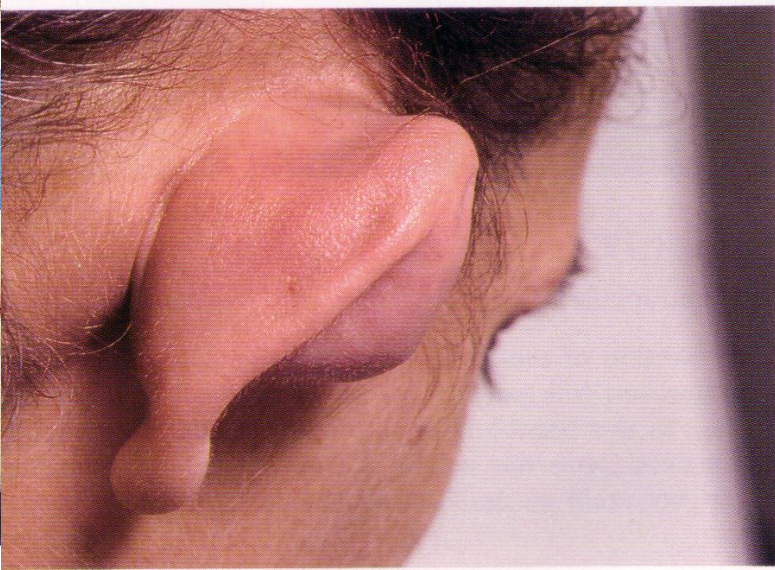
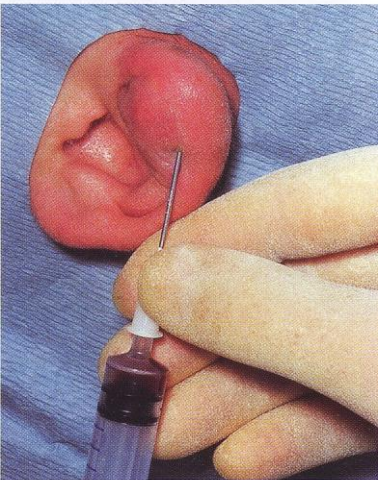
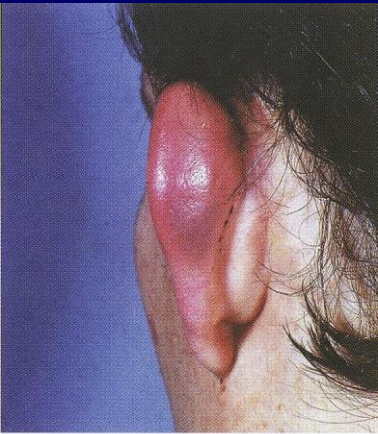


Traumas

- Cart. necrosis !
- Removal of necrotic parts, skin sutures!
- Amputated pinna can be reconstructed acutely, excellent blood supply
- 8 hours ischemia can be tolerated (maximum)

Othaematoma, cauliflower ear

Medial aspect of pinna !



Repeated aspiration? NO !
Danger of superinfection,
perichondritis !

Traumatic seroma

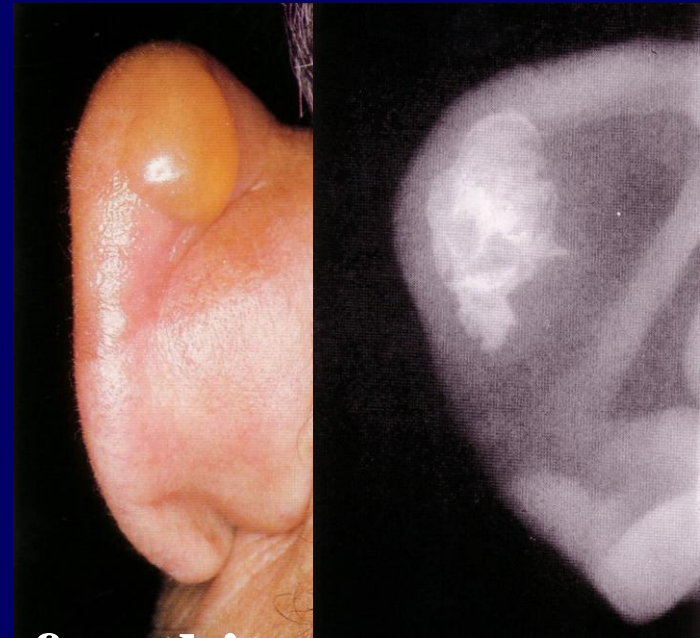


Burning and frostbite injuries of the pinna



burn

necrosis, stenosis



frostbite:

- a) cyanosis, spasmus
- b) ischemia,
- c) deep necrosis

Ear rings



Ear rings



Foreign body reaction



Black dermatography



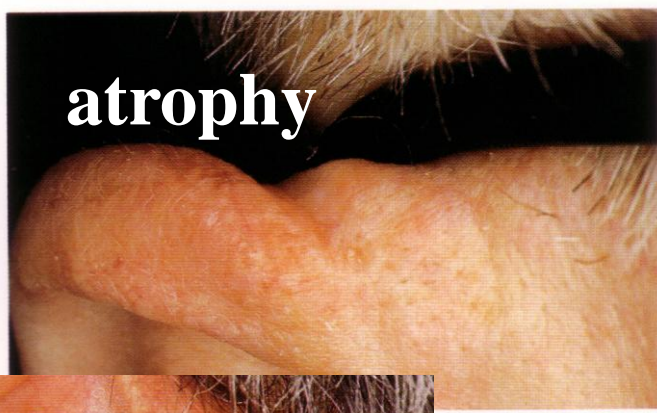
Infected tunnel



Contact dermatitis

Pressure atrophy, ulceration

atrophy



ulcus



reason: spectacle



reason: hearing aid

Traumatic partial avulsion

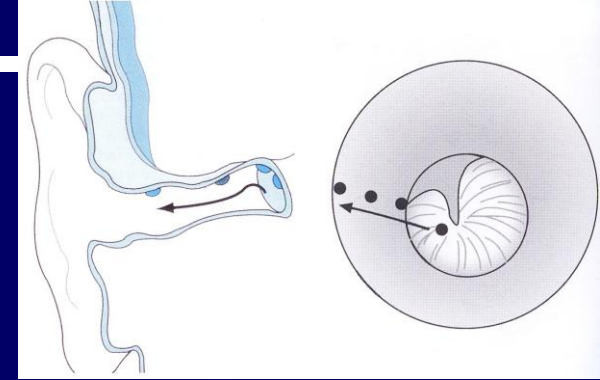


Secondary burning



**Reason: hot
soup**

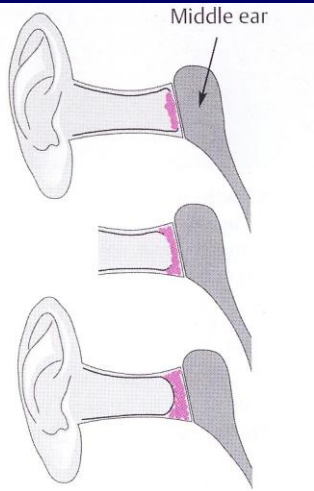
Cerumen, foreign body



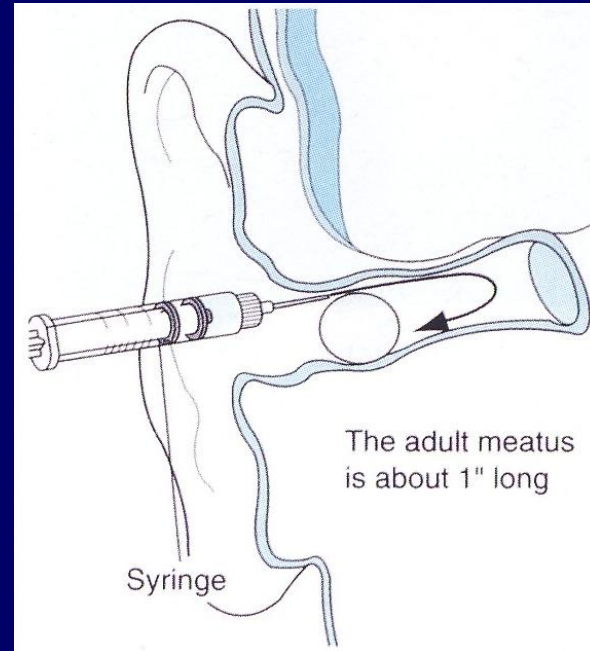
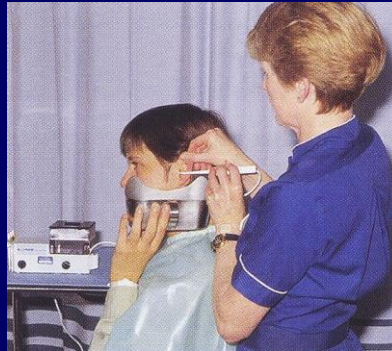
- Importance of intact running carpet mechanism

- Do not use cotton sticks! Consequence: chr. otitis externa

- Wax: braunish-yellowish mass: squam. epithel, dirt, heary material, product of cerumen glandulas (cond. hearing loss, vertigo, tinnitus)

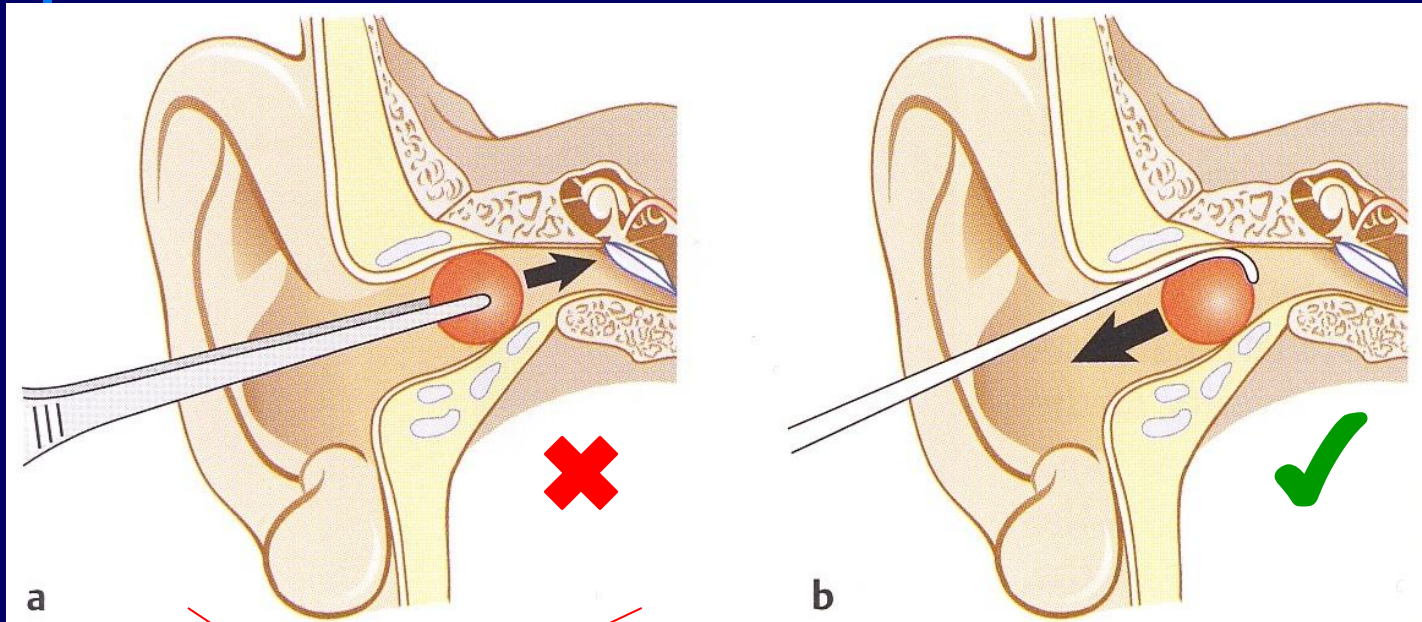


Ear canale wash-out

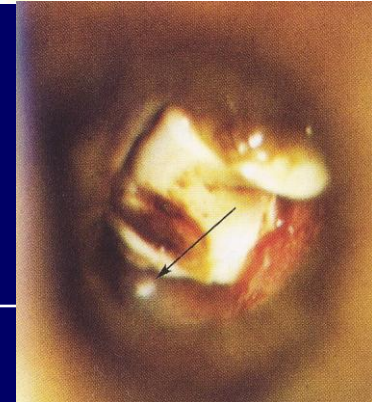


Forbidden postop.!

Foreign bodies (ITN, proper instrumentation, perforation??)



~~forceps~~



Inflammations of the pinna and ext. aud. canale



perichondritis

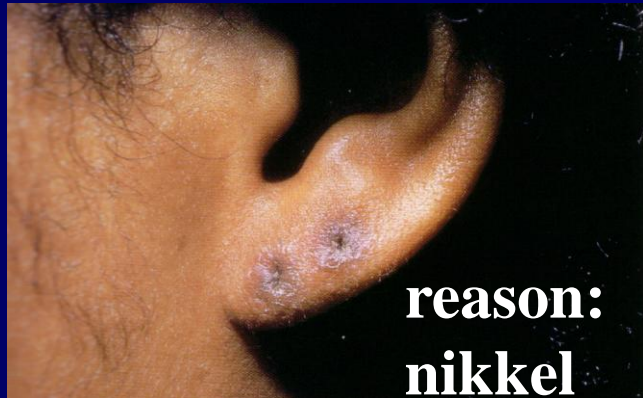
Contact dermatitis (pinna)



**Reason: oilment,
itchy, no pain
diff. dg: ot. externa,**



**reason:
neomycin
oilment**

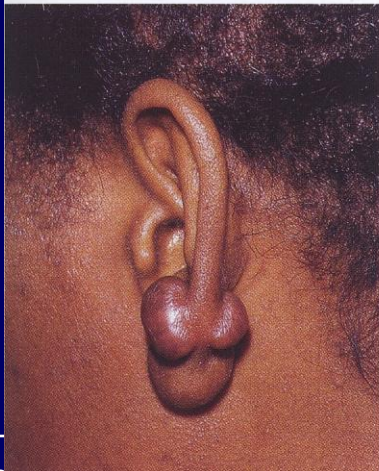
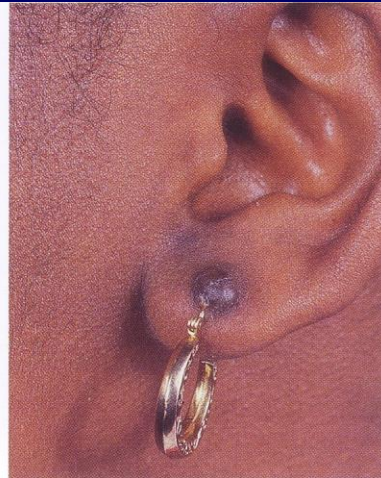


**reason:
nikkel**



Reason: HA

Keloid on the pinna



**Black people!
Neck, periauricular region.
Seldom on the face.**

**(radiotherapy,
steroid)**

Chr. bacterial dermatitis



- Skin of the pinna is an important barrier !
- Staphylococcus aureus and Candida
- Reason: HA

Neurodermatitis and fungal dermatitis of the pinna

neurodermatitis



itchyness is frequent in chr. dermatitis, excoriations, bleeding: *neurodermatitis*

fungi



Reason: HA

Diff. dg: bact. infection.
Swab!

Herpes zooster of the pinna



**disseminated
(leukaemia)**

2017.12.06.



**Mandibular,
maxillary branch of n. V.**



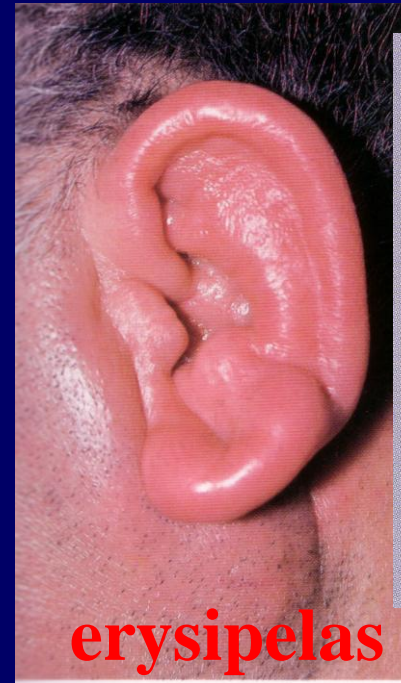
**Ramsay-Hunt sy.
ggl. geniculi herpes**

Impetigo and erysipelas



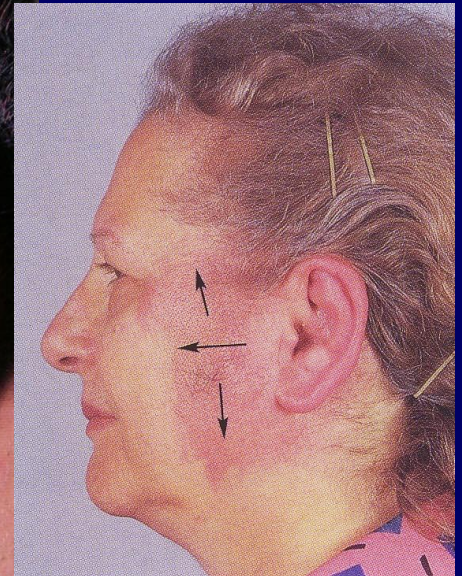
impetigo

**superficial,
staphylococcus aureus**



erysipelas

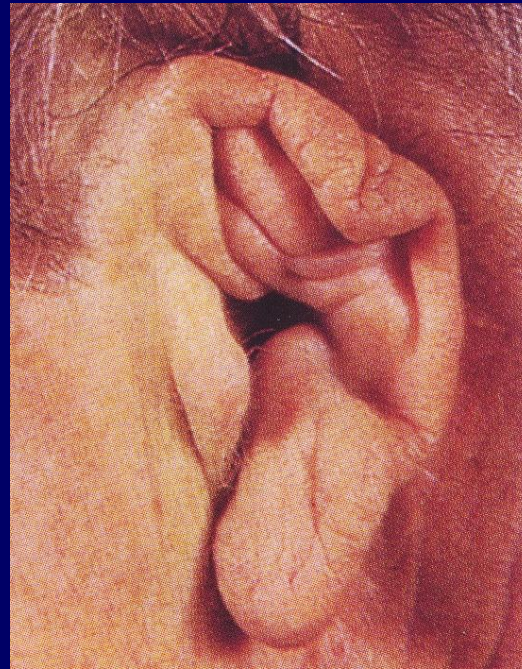
**A group.
Streptococcus beta
haemolyticus**



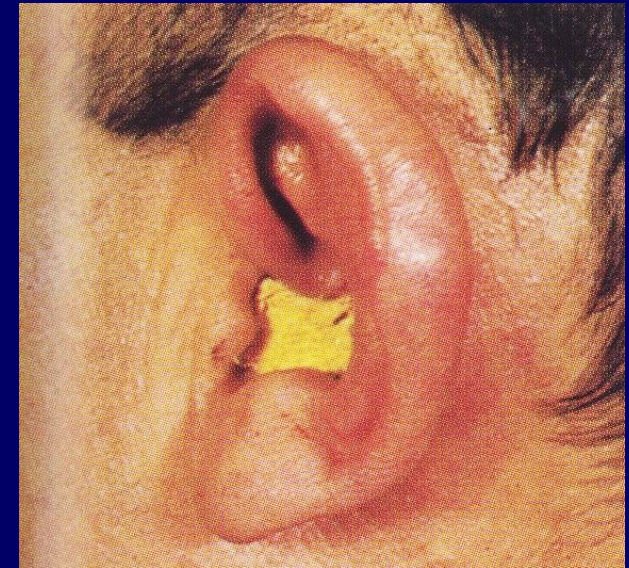
Perichondritis



Pseudomonas !!!

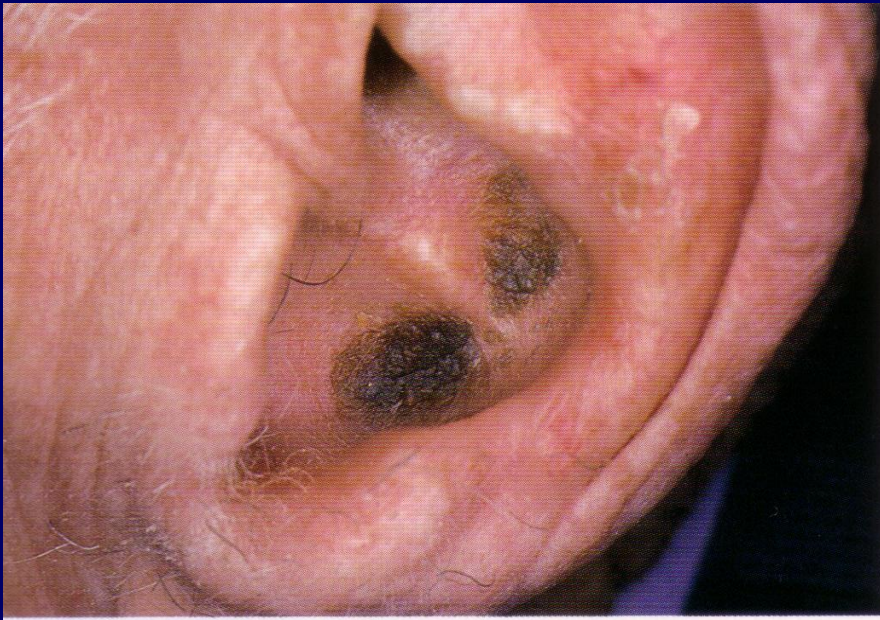


Preantibiotic era



**Iodine,
neomycin !**

Neglected keratosis on the pinna



- ❑ Stratum corneum, superficial layer
- ❑ If not removed: keratin will be collected
- ❑ Diff.dg: seborrheal dermatitis (keratin is difficult to remove)

Psoriasis vulgaris of the pinna and external auditory canale



- inherited, increased proliferation of epidermal cells



- Typical silver layers in the ext. aud. canale

Recurrent polychondritis

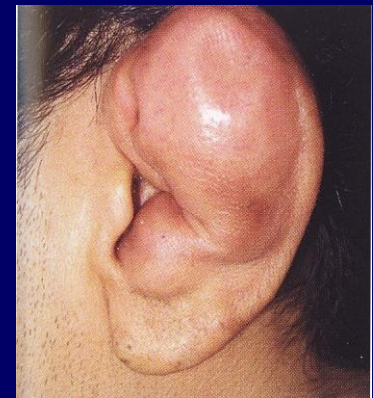


- Progressive chondritis everywhere (ear, nose, throat, trachea, knee).
- Eye infection is frequent.
- Autoimmun origin (circulating II. typ. anti-collagene antibodies.
- Consequence: deformed pinna after years.

Idiopathic cystic chondromalacia of the pinna

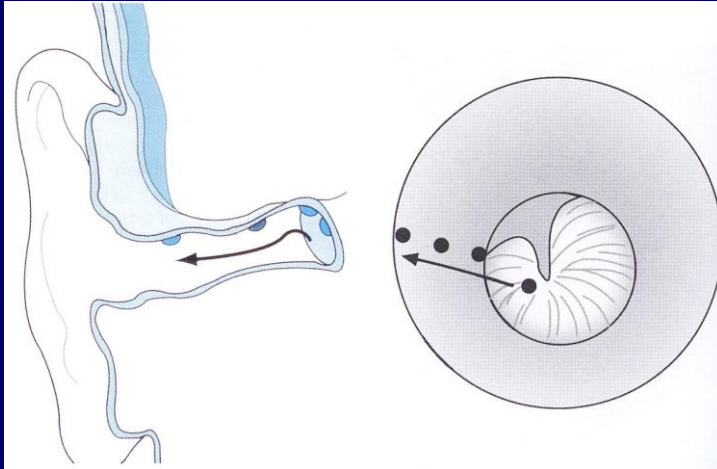


- ❑ Unknown origin (trauma?)
- ❑ Symptomless bulging on the lateral side
- ❑ Diff. dg: recurrent polychondritis, pseudocyst

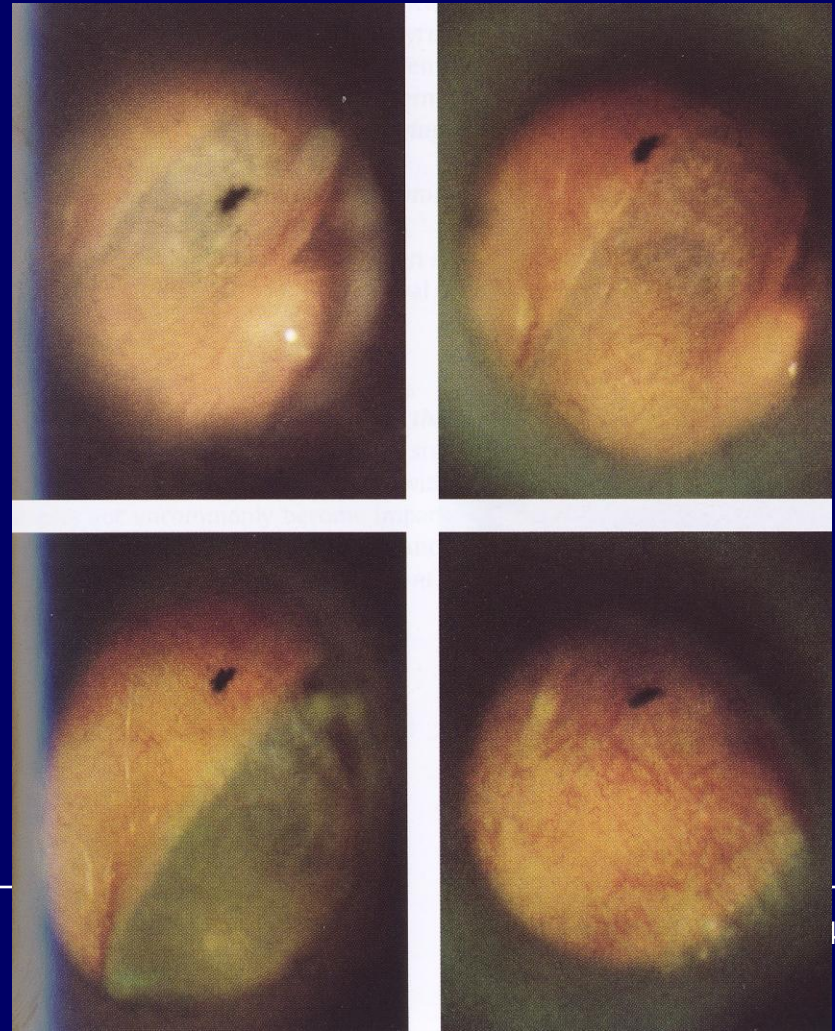


pseudocyst

Otitis externa



3 weeks: edge of TM
6-12 weeks: lateral part of
external canale (wax)



Eccemetic otitis externa and furunculus

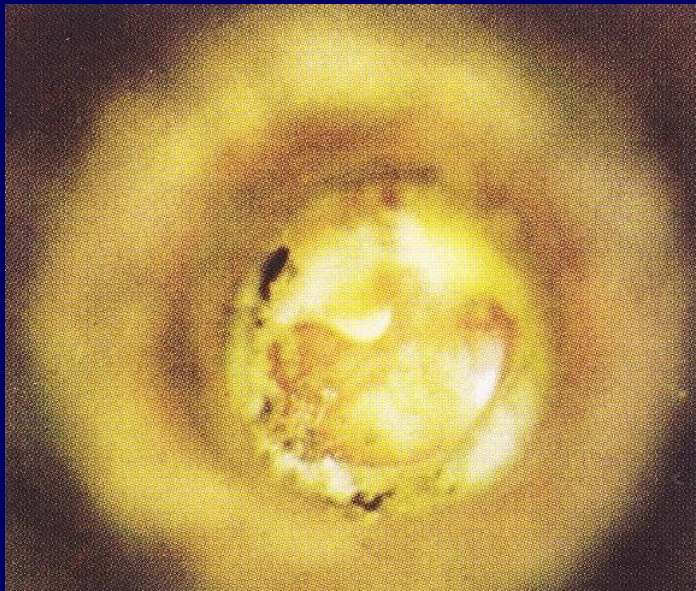


Neomycin, chlorocid

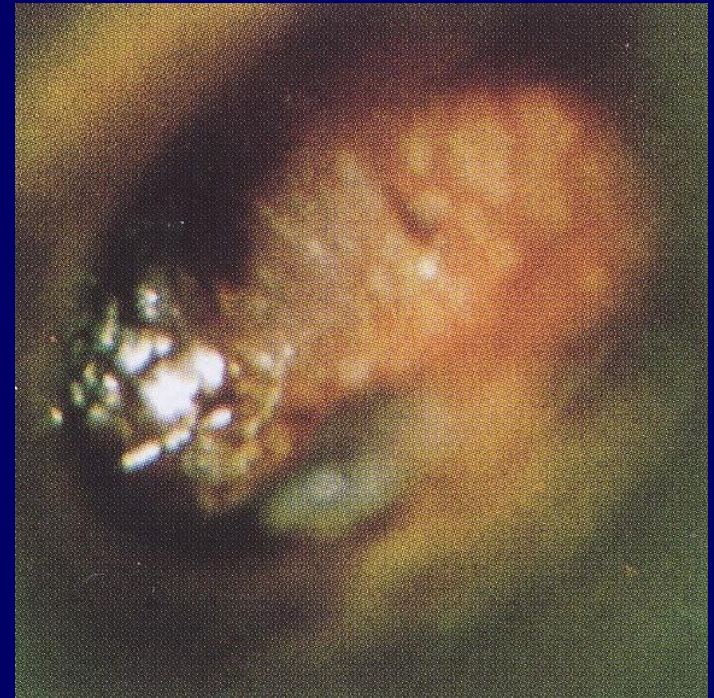


Pain, diabetes !!

Consecutive otitis externa and bullosus and granulomatous myringitis

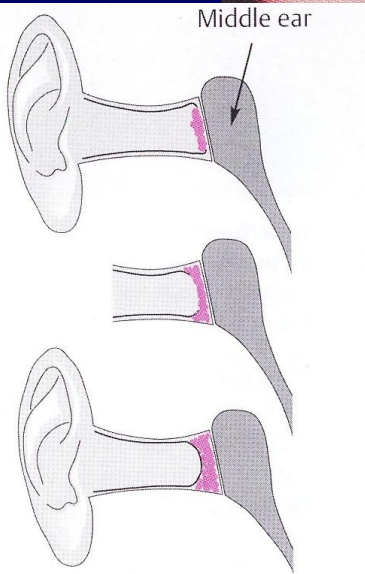


Mycotic !

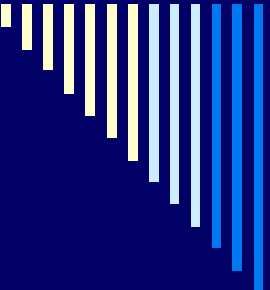


Bullosus myringitis

Chronic otitis externa és malignant otitis externa



Diabetes, pseudomonas



Kimura disease (angiolymphoid hyperplasy eosinophilia)



- Gradually increasing number of nodules (vascular origin).
- Can be itchy, sometimes bleeding.



Benign ! Difficult to make a dg. !

Winkler nodule

(chondrodermatitis nodularis helicis chronica)



- hard, painful, difficult to recognize.
- Around the apex of the helix
- Cart. degeneration (sun), breaks through the skin.
- Excision together with the skin.

Tumors



cc. basocellulare

Gouty nodule



- painful, covered with normal skin on the helix.
- Yellowish sodium urate crystals.
- Renal disease?

Rheumatic nodules



anywhere on the pinna.

Amyloid nodule



Amyloid: large molecular weight fibrillary protein, originating from plasmatic cells.

Comedo and milia



Keratin and squam.
epithelium at the follicles.



**Small epidermal cyst,
superficial, white.
origin: ductus
sebaceus (deep part).**

Epidermal cyst



**Origin: follicles,
intradermal or subcutan
cysts, slow progrediation.**



**Implanted cyst
(ear ring)**



**Infected
epidermal cyst**

Pilar cyst



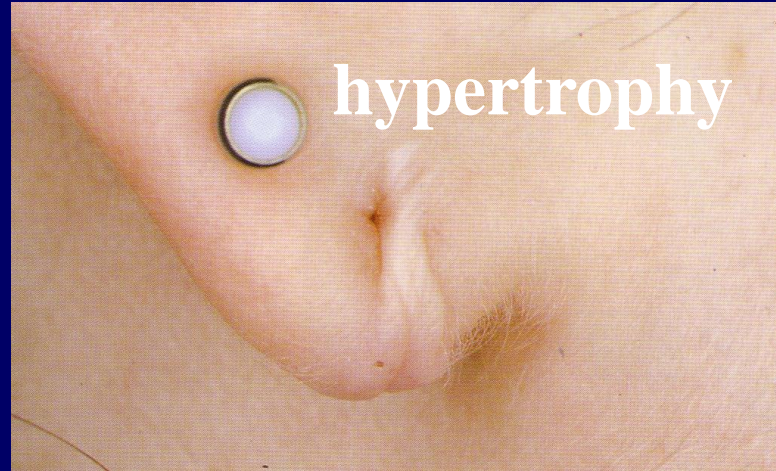
- ❑ **Origin: hair follicles.**
- ❑ **Trichilemmal cyst (also a known name).**
- ❑ **Diff. dg: epidermalis cysta (intercellular bridges of internal epithel cells are missing)**

Keloid és hypertrophy



keloid

20-30 years black people



hypertrophy

Following injuries, wounds.

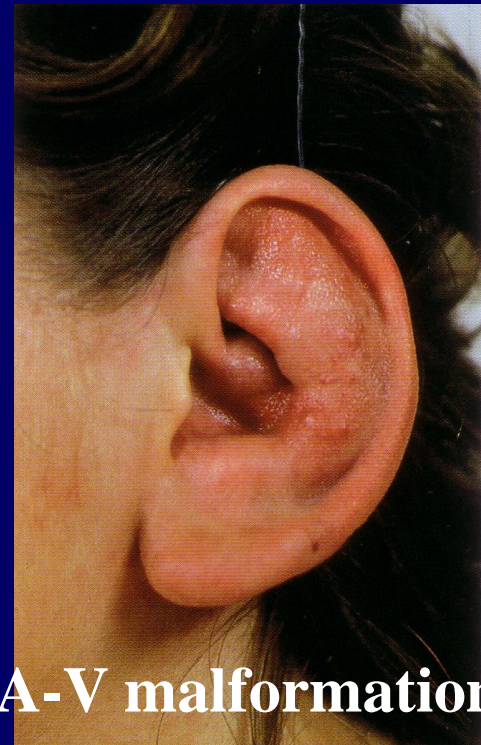
Spontaneous improvement after 1-2 years.



**Capillary
haemangioma and
arteriovenous
malformation**



haemangioma

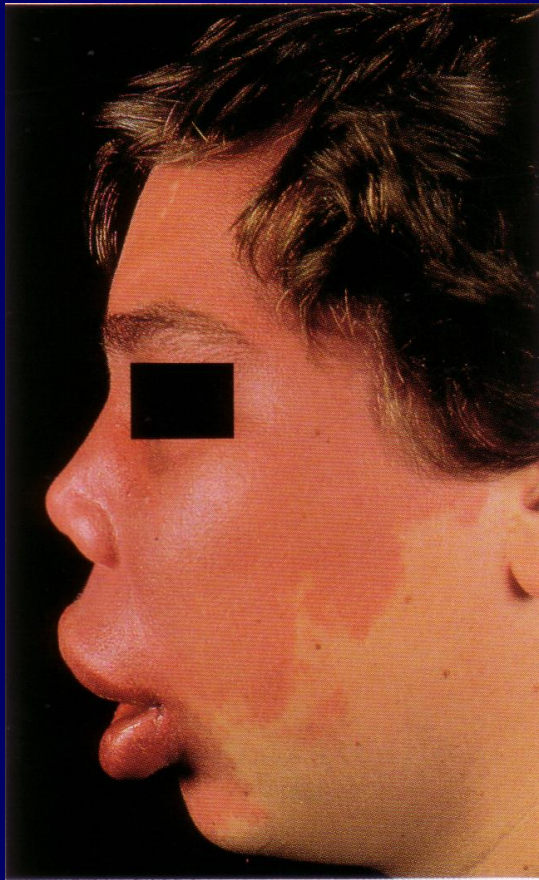


A-V malformation

Pulzation sometimes.

Disappears by age 10

Neavus flammeus (port wine stain)



Can be seen at
Sturge- Weber syndrome
(Encephalotrigeminal
angiomatosis)

seizures, unilateral paralysis,
glaucoma, learning
difficulties

Enlarged veins



- Can be local venous haemangioma, or locally enlarged veins.
- Unknown origin, may be trauma?
- Pressure makes it empty.

Keratoachantoma

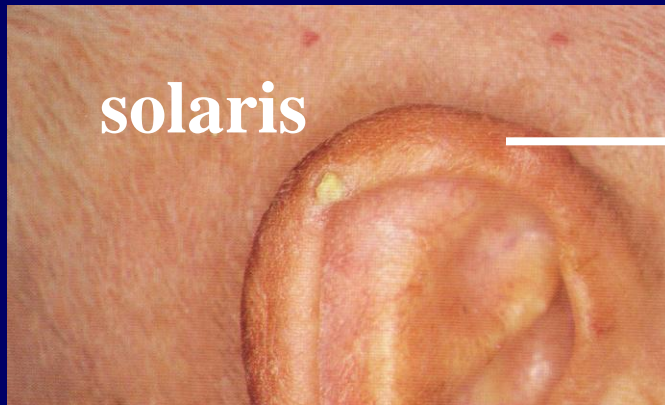


- ❑ Soliter, epithelial tumor, slow progression
- ❑ Elderly people, sunbathing!
- ❑ Elevated edges, keratin inside the crater
- ❑ Similar to squamous cell cc.

Keratotic lesions



- Benign, after 3rd decade.
- Melanin pigments, can be yellow, braun, black.
- Kertotic obstruction of the central crypts.



- Premalignanat, dry, uneven surface. Sticked to the skin.
- Transformation to carcinoma (rare).

Naevus



- Junctional naevus (flat brown macula)



- Compound naevus (prominent, pigmented)

Intradermal naevus



Dome like, prominent lesion.

Solaris lentigo



**Pigmented,
dark brown,
different
shapes.**

Elderly people, sunbathing !

Verruca vulgaris



**Papova virus,
epithelial
hyperplasia,
hard papula.**

Filiformis, or papillomatosus.

Carcinoma basocellulare



Most frequent. Mechanical irritation (ext. aud. canale). Several forms of appearance. Ulcerations ! Diff. dg: chronic dermatitis. Role of biopsy!



Sqamous cell carcinoma



**Rare on the pinna.
Biopsy, if a lesion is
not healing.**

Verrucosus carcinoma



**Low malignancy,
exophyt.**

**Diff dg: verruca
vulgaris. Destroys
surrrounding
structures.**

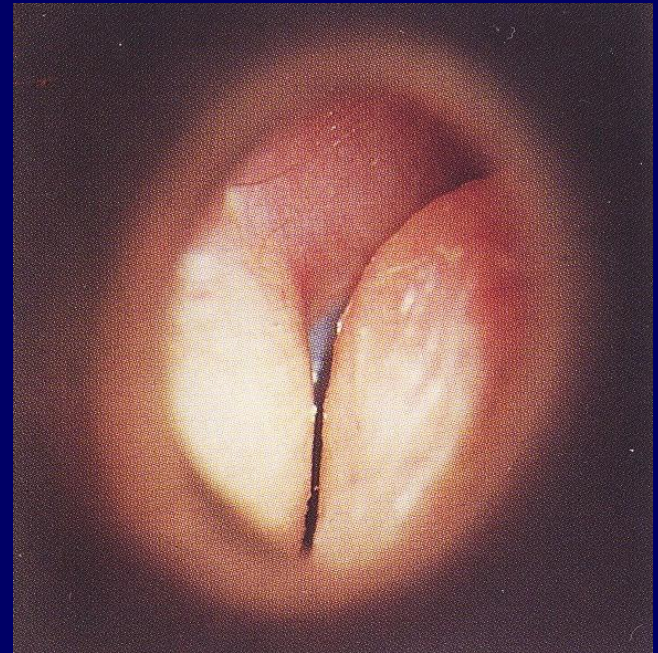
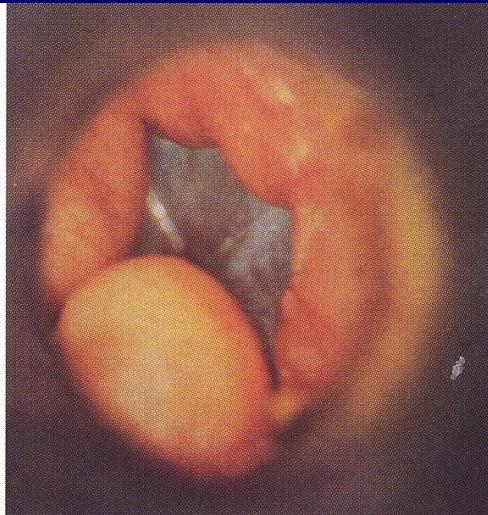
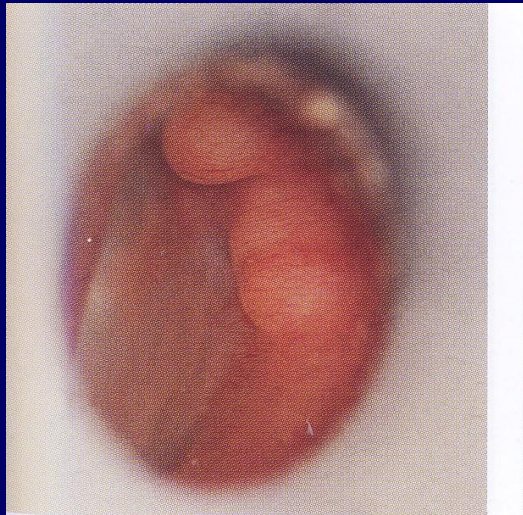
Kaposi sarcoma



**Vascular origin,
slowly progressing,
redish papula.
Biopsy compulsory
!**

HIV positivity???

Osteoma



Cold water, swimmers!!!!



Tympanic membrane

- 7x9 mm, diameter: 0,7-0,9 cm²
- 4 quadrants
- Conic (horn) shape
- Inclination, declination
- Widths: 60 μ
- 3 layers:
 - Squamous epithelium
 - Hyalin fibres (elasticity)
 - Mucous membrane, kubic epithelium, ciliar epithelium



Normal tympanic membrane

- Bulging laterally (outside)
- Whitish-greyish colour
- shining, reflectable
- What is visible?
 - short process of malleus
 - Manubrium mallei , spatula (umbo)
 - Shining reflex area
 - Later on: malleolar increased vascularisation
 - Extreme transparency: processus longus incudis

ÉP DOBHÁRTYA

1,101



2003. 03. 26.

Dr. Mertz Katalin

14



Membrana tympani

Pathologic situations

- Position
 - “Retracted”
 - Bulging (forward)
- Substance
 - Oedema
 - Calcification
 - Atrophy
- Perforation
 - Traumatic
 - Inflammatory

Than you for your attention !



i.gerlinger@freemail.hu