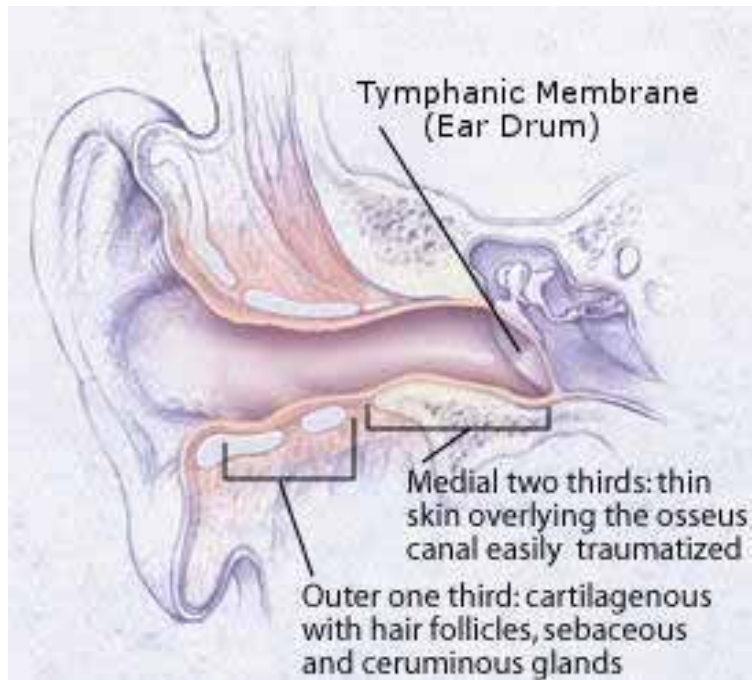


# Otitis Externa

Pieter Naudé

# Anatomy



- 2.5 cm
- S-shaped
- Isthmus
- Hair follicles
- Sebaceous + ceruminous glands
- Cerumen = protective

# Clinical overview

- **Acute Otitis Externa – AOE**
  - **Diffuse – “swimmer’s ear”**
  - Localized – furunculosis
- **Chronic Otitis Externa – COE**
  - Otomycosis
  - Non-infective
- **Necrotising / Malignant OE**
- **Herpes Zoster Oticus (Ramsey-Hunt)**

# AOE - diffuse / 'Swimmers Ear'

## Background:



- Infection of EAC
- Bacterial
  - Pseudomonas
  - Staph aureus
- Rarely complications
- Acute morbidity
- M = F
- All ages
  - (peak=7-12y)

# AOE - diffuse / 'Swimmers Ear'

## Pathophysiology:



- Trapped moisture
  - Swimmers
  - Humid climates
- Trauma to EAC
  - Cotton buds
  - Paper clips
  - Pencils

# “Ear cleaning – 15 rupees”



# AOE - diffuse / 'Swimmers Ear'

## History:



- 1-2 days progressive ear pain
- Itching
- Purulent discharge
- Conductive hearing loss
- Feeling of fullness or pressure
- Exposure to water

# AOE - diffuse / 'Swimmers Ear'

## Examination:



- Pain on gentle traction of auricle
- Peri-auricular adenitis
- Speculum:
  - Erythema
  - Oedema
  - Moist debris in canal
  - TM difficult to visualise



# AOE - diffuse / 'Swimmers Ear'

## Diagnosis:



- $D_x$  usually made on history + physical exam
- Lab:
  - Swab for MCS if not responding on  $R_x$
- Imaging:
  - Only if complicated
- Other:
  - Screen for DM (glucostix)

# AOE - diffuse / 'Swimmers Ear'

## Treatment:



- Topical
  - Quadriderm
  - a/b eardrops
- Systemic
  - Oral a/b usually not indicated
  - Analgesia
- Keep ear dry

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# AOE – localised / furunculosis



- Usually in lateral 1/3
- Pustule → furuncle
- Localised symptoms
- Staph
- R<sub>x</sub>:
  - not abscess
    - Oral a/b
    - Analgesia
  - Abscess
    - I&D

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# COE - otomycosis



- Aspergillus and Candida most common
- 1° pathogen or superimposed infection

# COE - otomycosis



- S<sub>x</sub> as for AOE
- Pruritus ++
- R<sub>x</sub>:
  - topical antifungal (Quadri-derm)
  - Acetic acid

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# COE – non-infective



- Chronic eczematoid external otitis /
- Seborrhoeic dermatitis
- Canal is red, scaly, dry
- Can have 2° bact inf
- Older women
- Hair over ears

# COE – non-infective



- Lichenification if chronic
- Rx:
  - Hydrocortisone
  - Treat overlying infection if present

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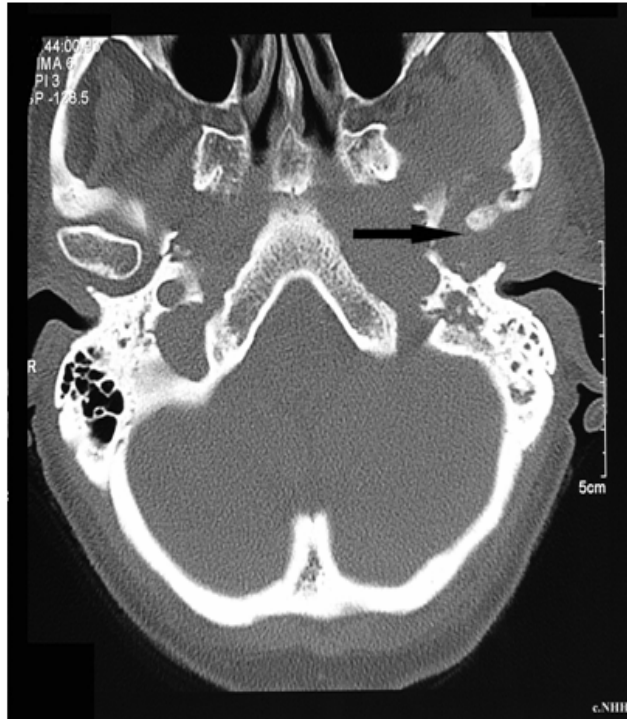
# Necrotising / Malignant OE



- DM, elderly, immunocompromised
- Pseudomonas common
- Begins as AOE
- Progresses to skull base osteomyelitis
- Resultant CN neuropathies
- Deep pain ++

# Necrotising / Malignant OE

**Diagnosis:**



- Clinical
- Laboratory
- Suspicions – not responding on  $R_x$
- CT

# Necrotising / Malignant OE

## Treatment:

- IV anti-Pseudomonal antibiotics (4w)
- Local canal debridement
- Pain control
- R<sub>x</sub> underlying condition

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# Herpes Zoster Oticus



- Ramsey-Hunt syndrome
- Herpes zoster of pinna ('shingles')
- Otagia and facial paralysis
- Varicella zoster virus dormant in nerve or ganglion



# Herpes Zoster Oticus



- Burning pain
- Headache, malaise, fever for a few days
- Vesicles appear 3 - 7 days after onset of pain
- Usually erupt on the antihelix, conchal bowl, and postero-lateral EAC

# Herpes Zoster Oticus

## Treatment:

- Acyclovir
- Oral steroids
- Corneal protection

# Credits / references

- Grand Rounds Of The UTMB  
Department Of Otolaryngology
  - <http://www.utmb.edu>
- Otolaryngology Houston
  - <http://www.ghorayeb.com>