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’

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

**Background:**

[Swimmer in pool image]
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-auriculuar 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 $\frac{1}{3}$
- Pustule → furuncle
- Localised symptoms
- Staph

Rx:
- not abscess
  - Oral a/b
  - Analgesia
- Abscess
  - I&D
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- Aspergillus and Candida most common
- 1° pathogen or superimposed infection
COE - otomycosis

- S_x as for AOE
- Pruritus ++
- R_x:
  - topical antifungal (Quadriderm)
  - 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 Rx
- CT
Necrotising / Malignant OE

Treatment:

- IV anti-Pseudomonal antibiotics (4w)
- Local canal debridement
- Pain control
- Rx underlying condition
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Herpes Zoster Oticus

- Ramsey-Hunt syndrome
- Herpes zoster of pinna (‘shingles’)
- Otalgia 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](http://www.utmb.edu)
- Otolaryngology Houston
  - [http://www.ghorayeb.com](http://www.ghorayeb.com)