Ear Discharge in Adults

Disclaimer

Contents

Red flags

- Severe persistent ear pain, headache, cranial nerve neuropathy
- Malignant otitis externa
- Suspected skull base osteomyelitis or mastoiditis
- Cellulitis of the pinna
- Clear fluid discharge following head trauma

Assessment

1. Examine ear with otoscope:
    - Consider ***conditions*** that can cause ear discharge.

Conditions

Causes of ear discharge in adults:

- *Common causes:*
    - *Otitis externa*
    - *Otitis externa with associated otitis media*
    - *Otitis media with a ruptured tympanic membrane*
- *Rarer causes to consider:*
    - *Discharging tympanostomy tube – consider Post-operative Grommets Care*
    - *Foreign body in ear.*
    - *Skull fracture – clear thin to bloody discharge with history of head injury*

- The nature of the discharge may be a clue to diagnosis.

2. If uncertain of aetiology or not responding to first line treatment, ***swab for microscopy and culture.***

Swabbing for microscopy and culture

- *Useful due to the increasing rate of multi-resistant organisms and can help target more appropriate antibiotic treatment.*
- *Can help differentiate between otitis externa where staphylococcal, pseudomonal, or fungal infections will be present rather than the respiratory pathogens which are seen with a perforation.*

Management

Manage depending on cause:

Management of otitis externa

- *For suspected bacterial cause:*
    - *Prescribe Ciproxin HC (ciprofloxacin 0.2% + hydrocortisone 1%) 5 drops twice a day for 10 days.*
    - *If oedematous canal and drops unable to penetrate insert Pope Otowick.*
    - *To view Pope Otowick insertion (43 sec.) video* ***CLICK HERE***

- *May fall out or is easily removed in 24 to 48 hours.*
- *If still present when reviewed after 3 to 5 days, may require gentle removal with forceps.*

- Educate patient on ***proper use of drops***.

Proper use of topical drops

- *Mop ear secretions with twisted tissue paper (tissue spears) or cotton wool before inserting drops:*
  - *Lie the patient with the affected ear pointing upwards.*
  - *Instil prescribed number of drops into the ear canal without dropper touching the ear.*
  - *Apply gentle pressure to the tragus (ear flap), pressing several times in a pumping action promoting deep penetration of the drops down the ear canal.*
  - *Keep the patient in position for 3 minutes.*
  - *Do not plug the canal after administering the drops.*
- *Remind the patient to keep the ear canal dry e.g., wear ear plugs, use shower cap when showering.*
- *For suspected fungal cause:*
  - *Prescribe:*
    - *Locacorten Vioform eardrops: 5 drops twice a day for 10 days, or*
    - *Kenacomb otic/Otocomb (triamcinolone 0.1% + neomycin 0.25% + gramicidin 0.025% + nystatin 100 000 units/mL) ear drops: 5 drops twice a day for 10 days.*
  - *If fungal infection does not resolve, refer for urgent or routine ENT referral.*

- *Advise patients:*
  - *pain is significant and will take a few days to settle. Regular analgesia is very important.*
  - *avoid any swimming until otalgia has completely gone.*
  - *consider preventative drops after swimming such as aqua ear.*

Acute otitis media with tympanic membrane perforation

Prescribe ciprofloxacin ear drops and advise *proper use of drops***.**

Ciprofloxacin ear drops

- *Ciprofloxacin 0.3% ear drops 5 drops, twice daily after dry mopping, until the middle ear has been free of discharge for at least 3 days.*
- *This may require prolonged or recurrent periods of treatment. Seek ENT advice if still symptomatic after 4 to 6 weeks.*
- *Ciprofloxacin ear drops are PBS-funded for patients with chronic suppurative otitis media (CSOM), who are either of:*
  - *Aboriginal and Torres Strait Islander persons. Ask the patient their ethnicity*
  - *or aged < 18 years with perforation of the tympanic membrane, and/or grommets in situ.*
- *Ciprofloxacin ear drops are not ototoxic and are preferred over aminoglycoside based ear drops.*

Prescribe antibiotics for adults.

Antibiotics for adults

- *Only treat adults with otitis media if infection is suppurative, associated with discharge, or patient is systemically unwell.*

    - *Amoxycillin 500 mg orally, 8 hourly for 5 days*
    - *If inadequate response to amoxycillin in 48 to 72 hours: Amoxycillin/clavulanic acid 500/125 mg orally, 8 hourly for 5 to 7 days*
    - *If allergic to penicillin:*
        - *Cefuroxime 500 mg orally, 12 hourly for 5 days*
        - *Trimethoprim/sulfamethoxazole 160/800 mg orally, 12 hourly for 5 days*

Advise continue drops for 48 hours after discharge has resolved.

Keep ear dry and review to ensure resolution.

Discharging tympanostomy tubes

- *Can be treated with steroid and antibiotic drops, such as Ciproxin HC (non-ototoxic drops) or Sofradex (potential but very rare ototoxicty).*

    Steroid and antibiotic ear drops

    - *There is a very small risk (1 in 1000 to 1 in 10,000) of inner ear damage when ototoxic ear drops (e.g., Sofradex, Soframycin, Kenacomb) are used if there is perforation or patent ventilation tube.*
    - *There is considerable debate, but there have been very few cases of ototoxicity reported.*
    - *Most experts feel the risk is very small and while Ciproxin HC is preferable, if unavailable, Sofradex or similar may be used in the short term.*
    - *Not treating in this group can increase the risk of sensorineural hearing loss.*
    - *Review after 1 week, and if no improvement, request ENT assessment.*
    - *Kenacomb is not effective, as it is too viscous.*

- *Consider adding oral antibiotics if:*

    - *fever or systemically unwell, or*
    - *one week of drops have not resolved the discharge.*

- *Locorten Vioform is not recommended due to adverse effects.*

- *In an acute perforation where the drops are used for < 2 weeks, the risk of causing harm is very low. Drops concentrate medication in the ear and clear the discharge better than oral antibiotics.*

Chronic suppurative otitis media (CSOM)

- *Clean the external ear canal well with suction or under direct vision with cotton wool on a probe, followed by ear drops containing antibiotic and steroid 3 to 4 times daily. Evidence suggests that quinolone antibiotic drops are most effective e.g., Ciproxin HC.*

- *If patient presents with CSOM and a discharging ear that is not responding to antibiotic and steroid drops, arrange urgent ENT, head, and neck surgery referral within 4 weeks.*

Referral

- If any red flags, arrange immediate ENT referral or admission

- If otitis externa with severe pain and/or canal oedema at first presentation, arrange urgent ENT surgery referral within 1 week.

- If non-responsive otitis externa, and:
  - significant oedema or pain, and non-responsive, consider urgent or routine ENT surgery referral.
  - significant white canal debris is present after the inflammation has settled, arrange urgent or routine ENT surgery referral.

- Arrange urgent or routine ENT surgery referral if:
  - chronic otitis media is not responding to treatment (aural polyps, cholesteatoma, myringitis, abnormal drum and discharge),
  - tympanic membrane perforation with frequent annoying discharge, or significant hearing impairment and unable to use hearing aids.
  - ventilation tube discharge which is not settling after one course of drops (with or without oral antibiotics) for suction and further management. Include swab result.

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