Specifi c diagnostic techniques

Key Procedures

Two specific diagnostic procedures should always be performed whenever an ear infection is suspected:

1. **Otoscopic examination**
2. **Cytological examination** of the discharge

Otoscopic Examination

- Aim:
  - Detect **foreign bodies** or **ear mites**
  - Assess the condition of the **vertical and horizontal canals**
  - Check the **appearance and integrity** **==of the tympanic membrane==**
  - Characterize the **type of exudate** present
- Important notes:
  - If the condition is **unilateral**, always examine the **good ear first** → prevents spread of infection + keeps the most uncomfortable procedure until last.
  - In some cases, the ear canal may be too **painful, swollen, or full of exudate** → prevents meaningful examination.
    - Options:
      - Sedate or anaesthetize the animal for examination.
      - Start a preliminary course of treatment, then re-examine after a few days.
    - Choice depends on **severity** and clinician's **suspicion** of underlying causes.
  - A **full otoscopic examination** must be performed at some stage in every case.

Cytological Examination

- Must be performed on the **first visit** and **all subsequent visits**.
- Can be done even if otoscopy isn't possible due to pain.
- Benefits:
  - Allows immediate differentiation of infectious agents:
    - **Co[1]cci**
    - [2]**Rods**
    - [3]**Malassezia**
  - **Cocci / Malassezia** → empirical treatment can be prescribed (sensitivity predictable).
  - **Rods** → always perform **bacterial culture & sensitivity testing** (resistance is common with Gram-negative organisms).
- Culture should also be done if:
  - The case **fails to respond** to treatment.

Practical Strategies for Routine Ear Cytology

If there are time constraints, cytology can still be incorporated by:

- Training a **qualified nurse** to stain and examine samples while the client waits.
- Admitting the **dog for a short time** and performing the test later when time allows.
- Taking the sample and examining it later.
  - At the same time, collect a **sterile swab for possible culture**.
  - Submit the culture only if **rods** are seen.
  - ⚠ Less desirable: because cytology results should ideally guide **treatment choice**.
  - Best practice: client collects medication later, after test results are available.

Determining Underlying Cause

- In addition to diagnosing and treating the infection, clinicians must identify the **underlying cause**, especially in animals with **recurrent otitis**.

- Failure to address underlying cause → many cases become **chronic or recurrent**.

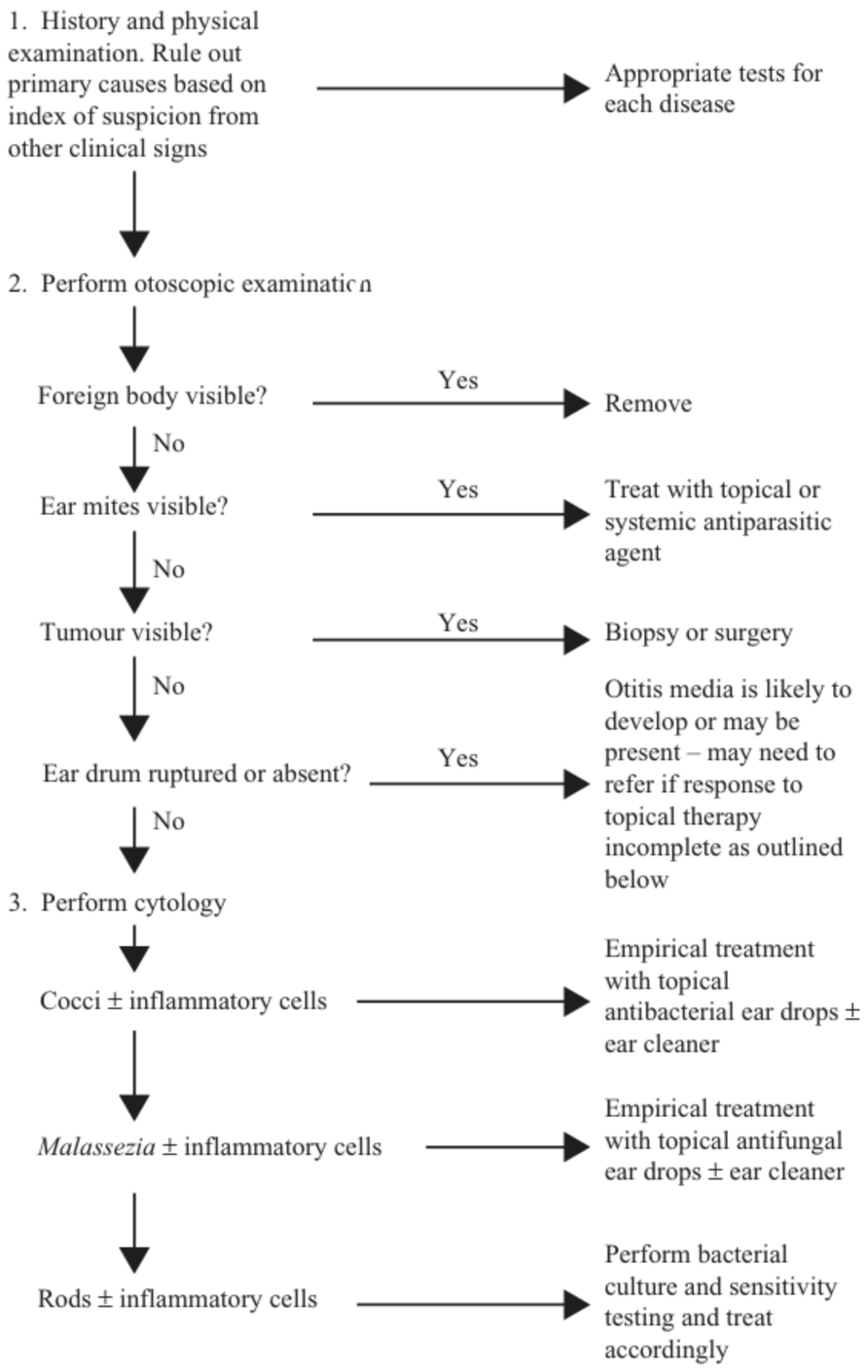

Figure 24.9 General diagnostic and therapeutic

approach to acute otitis externa

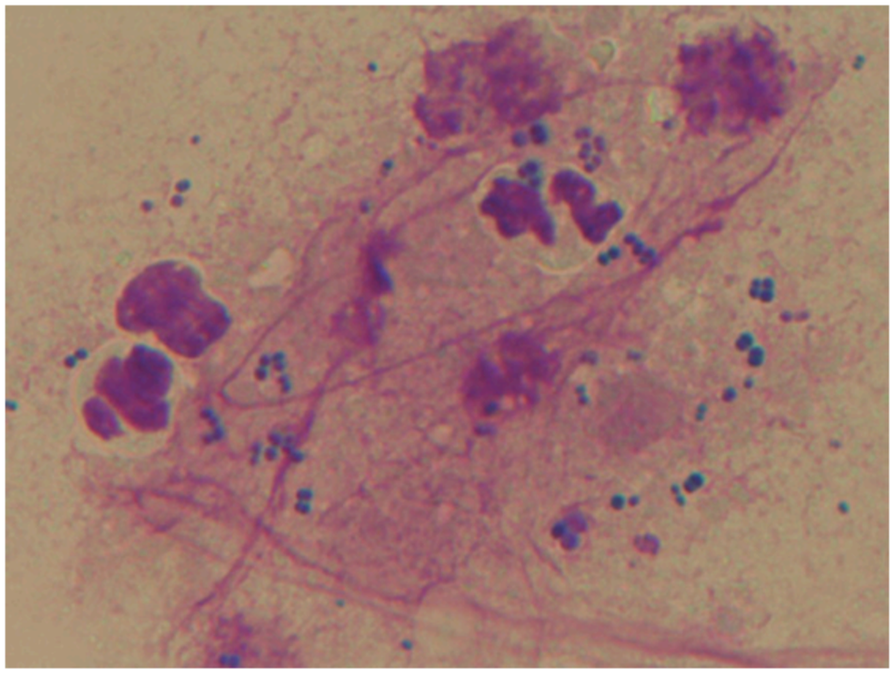

Figure 24.6 Neutrophilic inflammation with cocci

1. ↩

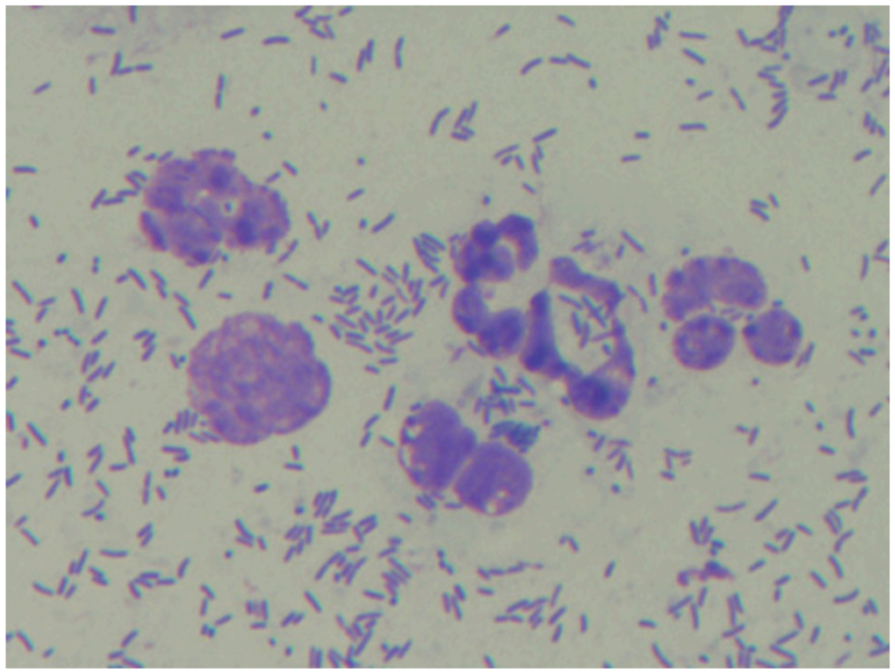

Figure 24.8 Neutrophilic inflammation with rods

2.

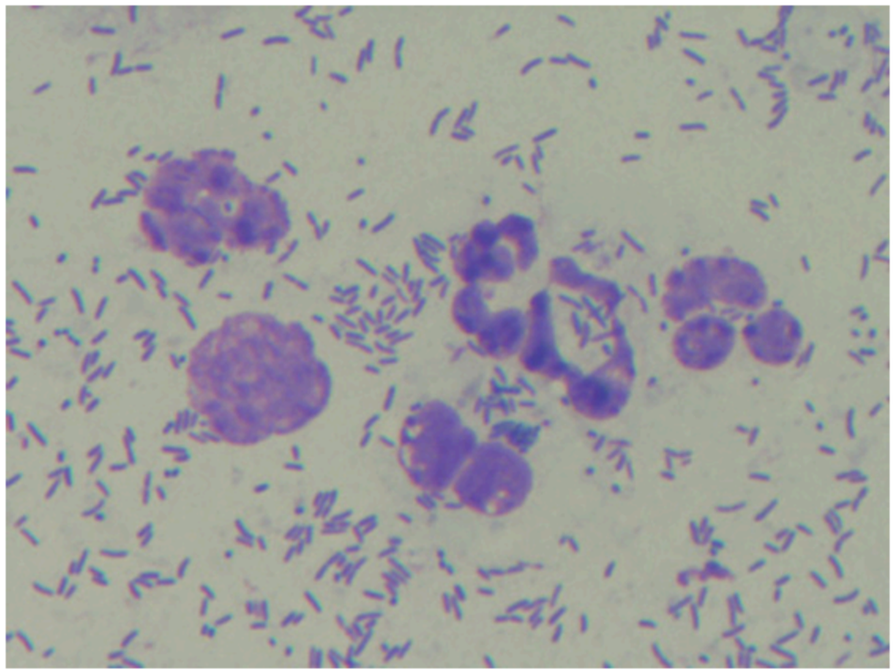

Figure 24.8 Neutrophilic inflammation with rods

3.