A Hole In The Drum

Dr Nirmal Patel
Associate Professor of Surgery, Macquarie University
MBBS (Hons)(Syd) FRACS (OHNS) MS (UNSW)
Paediatric & Adult Ear Disease

North Shore Private & Royal North Shore Hospitals
Director, Kolling Deafness Research Centre, University of Sydney
Overview

* Tympanic membrane anatomy
* Acute Perforations
* Chronic Perforations
* Safe vs. Unsafe Ear
Tympanic Membrane Anatomy
Acute Perforations
Acute Perforations
Acute Perforations
Management of Acute Perforations

* 90 – 95% will heal spontaneously

* Traumatic
  • ear dry

* Acute Otitis Media
  • Aural toilet, oral & topical antibiotics

* If symptomatic and not healed in 3–6 months consider surgery, a “Myringoplasty +/- Ossicular chain reconstruction
Chronic Perforations

Safe

Unsafe

Chronic Suppurative Otitis Media

Cholesteatoma
CSOM “Safe” Perforations

* Generally central
* Generally do not progress to serious complications, therefore “safe”.
* Exception is chronically discharging ear, often with associated granulation and osteitis.
CSOM “Safe” Perforations
Treatment of Safe Perforations

* Medical Treatment
  - Water precautions
  - Toiletting
    - Suctioning
    - Mechanical with a cotton swab
  - Topical therapy – Ciprofloxacin
  - Hearing Aids for non surgically correctable hearing loss

* Surgical
  - Tympanoplasty +/- Ossicular chain reconstruction
Medical Treatment of Central Perforations
Cholesteatoma - The Unsafe Perforation

- Attic or marginal perforations
- Cholesteatoma is an epidermoid inclusion cyst in the temporal bone
- Can cause serious & permanent damage to hearing, balance, the facial nerve and the brain
Cholesteatoma
“Unsafe” Marginal Perforations - suspected cholesteatoma
Cholesteatoma Complications
Cholesteatoma Complications
Cholesteatoma Treatment

* Surgical Treatment –
  - Mastoidectomy, Removal of cholesteatoma and Reconstruction (Tympanoplasty +/- ossicular chain reconstruction).

* Medical Treatment (for surgically unsuitable)
  - Regular toilet
  - Topical Therapy
Surgical Treatment of Cholesteatoma
Summary

To find the unsafe perforation, look at the roof and the edge.