Perforated Tympanic Membranes

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2 types of perforations

1. Acute

Safe perforations - usually very small in the centre, not involves the tympanic annulus, heal well usually within 6 weeks

Unsafe perforations - large, involves the annulus (periphery), hearing is affected - need ENT referral

2. Chronic

a) Attic perforations - they are usually not holes, sucked in TM and debris collect in and perforates the TM, become osteolytic and erode the bone - resulting in cholesteatoma - need ENT referral - ENT closely F/U - remove the debris/wax collected in the attic perforation

b) Large central perforations - usually sequel of CSOM - nothing much can be done - ENT carefully select the patients for grafting if the hearing is affected

Perforation of TM

Iatrogenic-gromet

- Small inferior perforation
- Hearing will not be affected, heal on its own
- Rare complication
  1. Middle ear inf-from water exposure
  2. Epithelial migration into middle ear causing cholesteatoma
Perforation of TM

- Acute perforation - Traumatic
- Healing depends on
  1. Size
  2. Fibrous tympanic annulus involvement
  3. Cause of perforation

Traumatic perforation

- Fig. 1 - 14 days after perforation
- Fig. 2 - 6wks after trauma completely healed
Unsafe perforation

- *Unsafe* perforations are not in fact holes in the drum,
- they represent a retraction of the tympanic membrane. Essentially a part of the drum becomes sucked inwards and may gradually enlarge.
- When the retraction becomes extensive, keratinous debris builds up in the retraction and may become infected. This becomes osteolytic. This is essentially how acquired cholesteatoma develops.
- Cholesteatoma is a dangerous lesion because it is capable of eroding through bone and may cause serious and even life threatening complications - hence the use of the term unsafe.

Chronic Perforation

- Sequel of AOM/COM
- Oedemstous inflammed middle ear mucosa