

**DEFINITION**

1. **Otitis media** is the term applied to inflammation of the middle ear. The middle ear is bounded on the outside by the **tympanic membrane** (ear-drum) and on the inside by the bony wall of the inner ear. The middle ear contains the **ossicles**, small bones which transmit the sound waves from outside to the inner ear, and is connected to the back of the nasal cavity by a drainage tube, the **Eustachian tube**.

**TYPES**

2. Otitis media is divided into the following types -
  - 2.1. **Secretory or exudative otitis media** - a condition characterised by accumulation of serous or viscous fluid in the middle ear but without any infective process.
  - 2.2. **Acute otitis media** - a rapidly developing condition of infection (which may be bacterial or viral) in the middle ear.
  - 2.3. **Chronic otitis media** - a prolonged condition of infection resulting from failure of an attack of acute otitis media to heal, with perforation of the tympanic membrane (burst ear-drum) and persistent discharge.

**CLINICAL MANIFESTATIONS**

3. All types of otitis media may produce discomfort or pain in the ear, deafness, discharge from the ear, fever and dizziness, the severity, combination, speed of onset and duration varying between the types.
4. Various complications may ensue, depending on the speed and effectiveness of treatment.

**AETIOLOGY****SECRETORY OTITIS MEDIA**

5. Secretory otitis media - often referred to as "**glue ear**" - is a common condition in children, being said to affect up to one third of all children at some time in their lives, very uncommon in adults.
6. It most commonly results from Eustachian tube dysfunction, particularly blockage by enlarged adenoid tissue in the naso-pharynx or, more rarely, fibrosis around the Eustachian tube following radiotherapy.
7. It is often associated with allergic rhinitis.
8. Otitic barotrauma - due to sudden descent in an aircraft or under-water diving may lead to sudden exudation into the middle ear.

9. The common cold may lead to serous effusion into the middle ear.
10. In many cases no cause is apparent (or is not sought).

### **ACUTE OTITIS MEDIA**

11. This condition is most common in children.
12. A history of a viral upper respiratory tract infection can usually be obtained and it is generally held that acute otitis media results from infection occurring in a secretory otitis media, the causes of which are listed above.

### **CHRONIC OTITIS MEDIA**

13. This condition occurs as a result of an acute otitis causing a perforation of the tympanic membrane, there then being a channel of possible further infection between the middle ear and the outside. The infection causing the perforation may continue, especially if inadequately treated or may be cured leaving an unhealed perforation through which re-infection may occur at a later date, such re-infection being more likely if the individual with a perforation indulges in swimming without ear canal protection.
14. Following damage to the tympanic membrane, tympanosclerosis may result. This is due to the deposition of plaques in the membrane, reducing its compliance and so causing conductive hearing loss.
15. The basic causes of chronic otitis media are therefore those of acute otitis media.

### **CONCLUSION**

16. **Otitis media** may be **secretory, acute** or **chronic**. The basic cause is accumulation of fluid in the middle ear cavity (secretory OM) which may become infected (acute OM), such infection leading to perforation of the ear drum and persistent infection or later re-infection via the perforation (chronic OM). Such accumulation of fluid may arise from hyper-secretion and/or blockage (partial or total) of the Eustachian tube.

### **REFERENCES**

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May 1993