



A 06 years old boy presented with bilateral nasal discharge, mouth breathing and bilateral conductive hearing loss.

- What is your diagnosis?
- What will be the treatment?





**Are Adenoids
Deforming Your Child?**



OME

(Otitis Media with Effusion)

Synonym:

- Secretory Otitis Media.
- Serous Otitis Media.
- “Glue Ear”.



OME

Definition: It is the chronic non-purulent inflammation of the middle ear cleft resulting in collection of sterile fluid in the middle ear.

➤ The fluid is usually thick & viscid but sometimes it may be serous. It is known as “Glue Ear” as the fluid is viscid, tenacious & mucoid.



OME

Incidence:

Commonly school going children.

In UK incidence is 1:4 children.



OME : Aetiology

- Occlusion of Eustachian Tube.
- Enlarge adenoid.
- Chronic rhinitis & sinusitis.
- Chronic tonsillitis.
- Benign & malignant tumour of nasopharynx.
- Palatal defect, cleft palate, palatal paralysis.
- Post nasal pack.
- Stricture after adenoidectomy.
- Unresolved acute Otitis Media.
- Allergy, seasonal or perennial.
- Viral infection of the middle ear cleft.



Function of Eustachian Tube

- **Ventilation and regulation of middle ear pressure.**
- **Middle ear clearance.**
- **Protection against nasopharyngeal sound pressure & prevents reflux nasopharyngeal secretion.**



OME : Pathogenesis

- Occlusion of the nasopharyngeal end of E. tube
 - Absorption of middle ear air
 - Negative pressure in the middle ear & transudation of fluid in the middle ear
 - If hypoxia persists
 - Mucoïd exudates by the mucosal glands
 - Thick fluid is accumulated



C/F : Symptoms

H/O common cold

1. **Hearing loss- Usually bilateral.**
Onset- gradual
Conductive in nature,
 - ✓ Mainly detected by the teacher for their low performance
 - ✓ Hear better in lying position, unilateral in adult.
2. **Earache—mild.**
3. **Auto phony.**
4. **Repeated h/o middle ear infection.**
5. **Delayed speech development.**
6. **Tinnitus usually crackling and bubbling noises and sensation of fluid in the ear**



Signs : Otoscopic finding

- ☐ Tympanic Membrane is lusterless.
- ☐ Cone of light is broken or absent.
- ☐ The lateral process of malleus is prominent.
- ☐ The handle of malleus is foreshortened, initially the membrane is retracted & later it becomes bulged when fluid is accumulated.
- ☐ Radial vessels may be present; fluid may be seen as a crescentic line (hair line). Air bubbles are seen.
- ☐ Mobility of the TM is restricted.





Normal Ear
(no fluid)



Some Fluid
(air-fluid levels)



Effusion
(full of fluid)

Signs:

Tuning fork tests.

- ❖ Rinne's test - Negative.
- ❖ Weber test - Lateralized to affected ear.
- ❖ ABC test- Equal

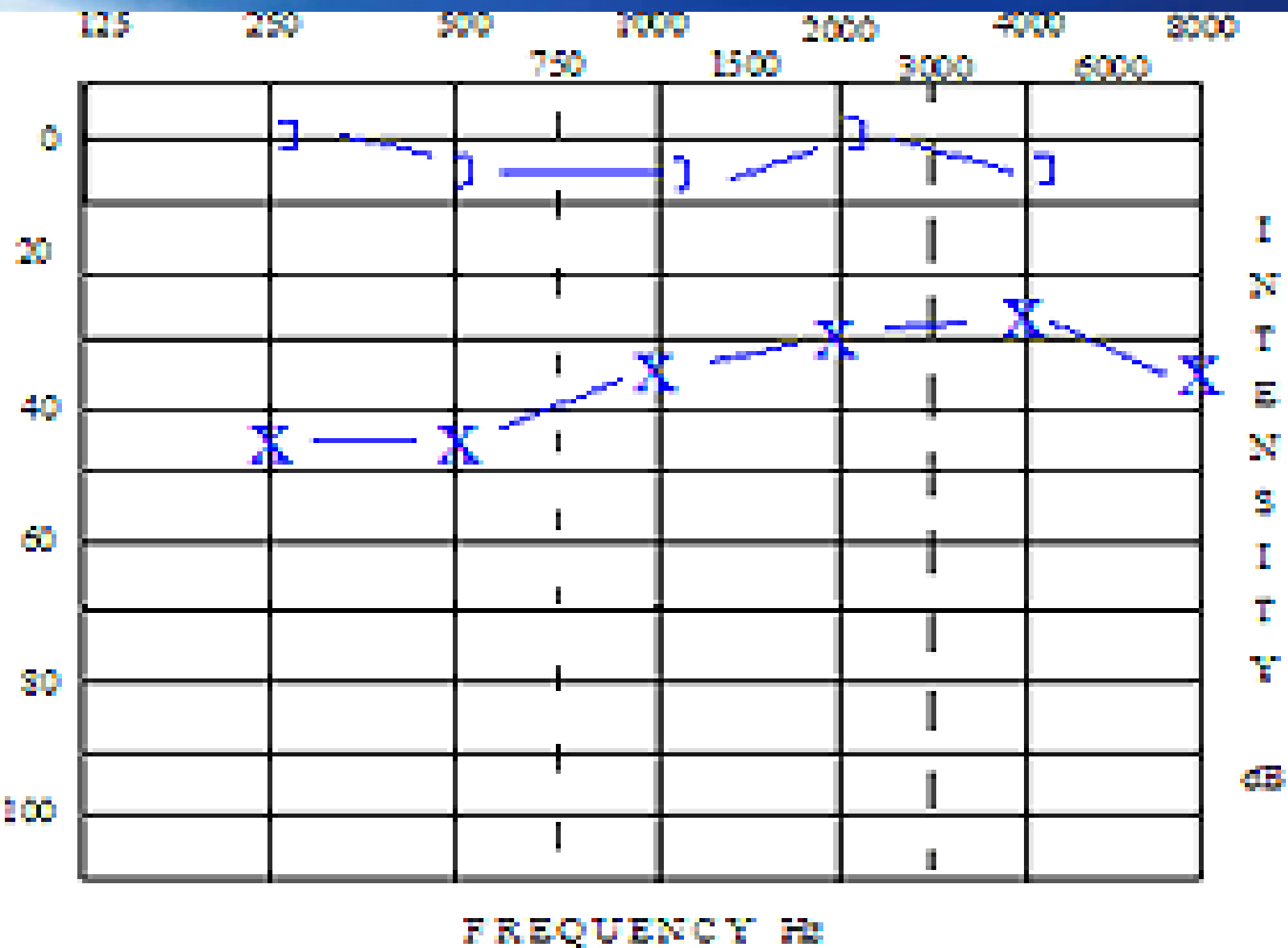


Pure tone Audiometry-

Conductive type of hearing loss:

20-40db loss, there is air-bone gape.
Sometimes associated with SNHL

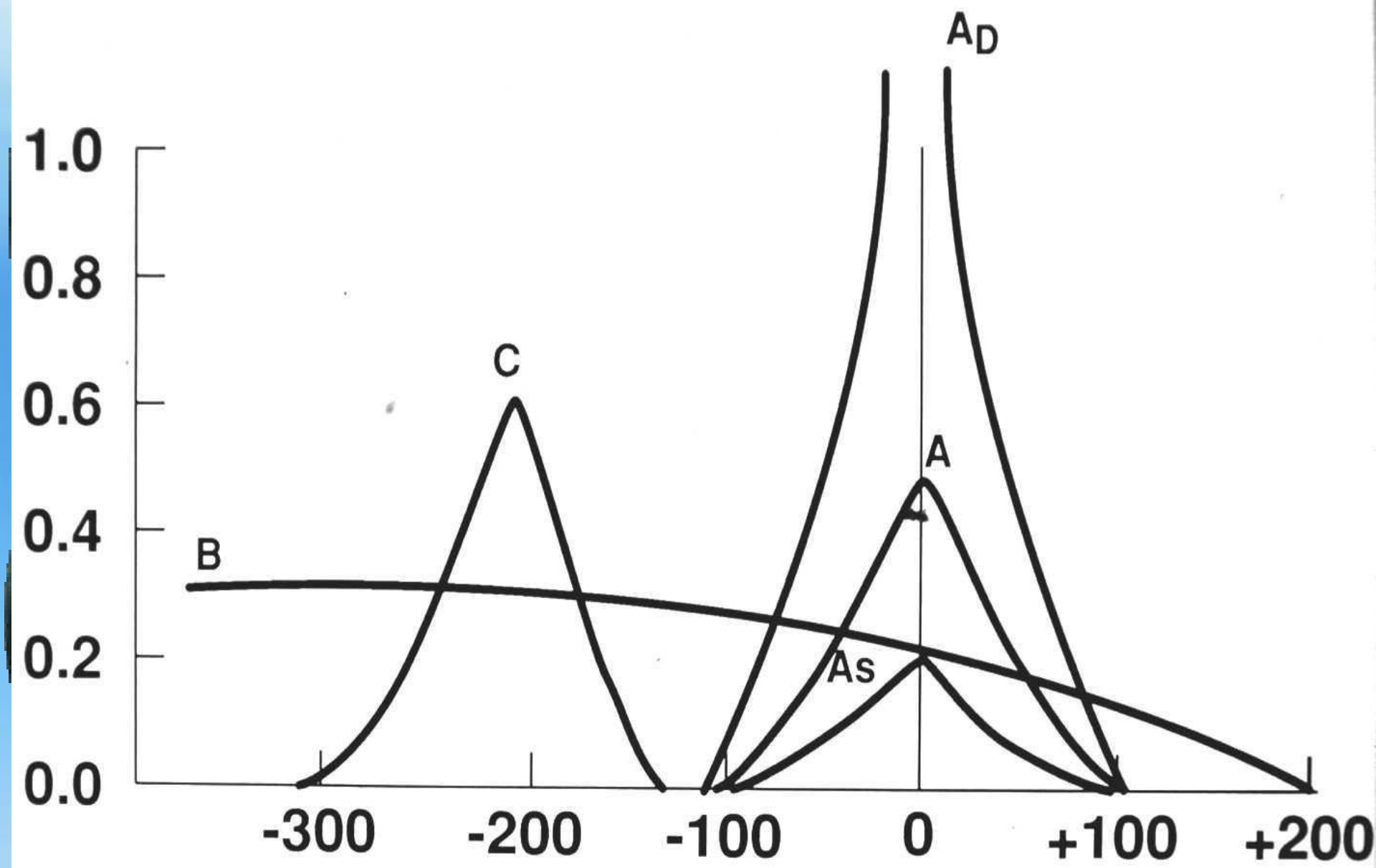




Impedance Audiometry

- ❖ Reduce compliance & flat curve.

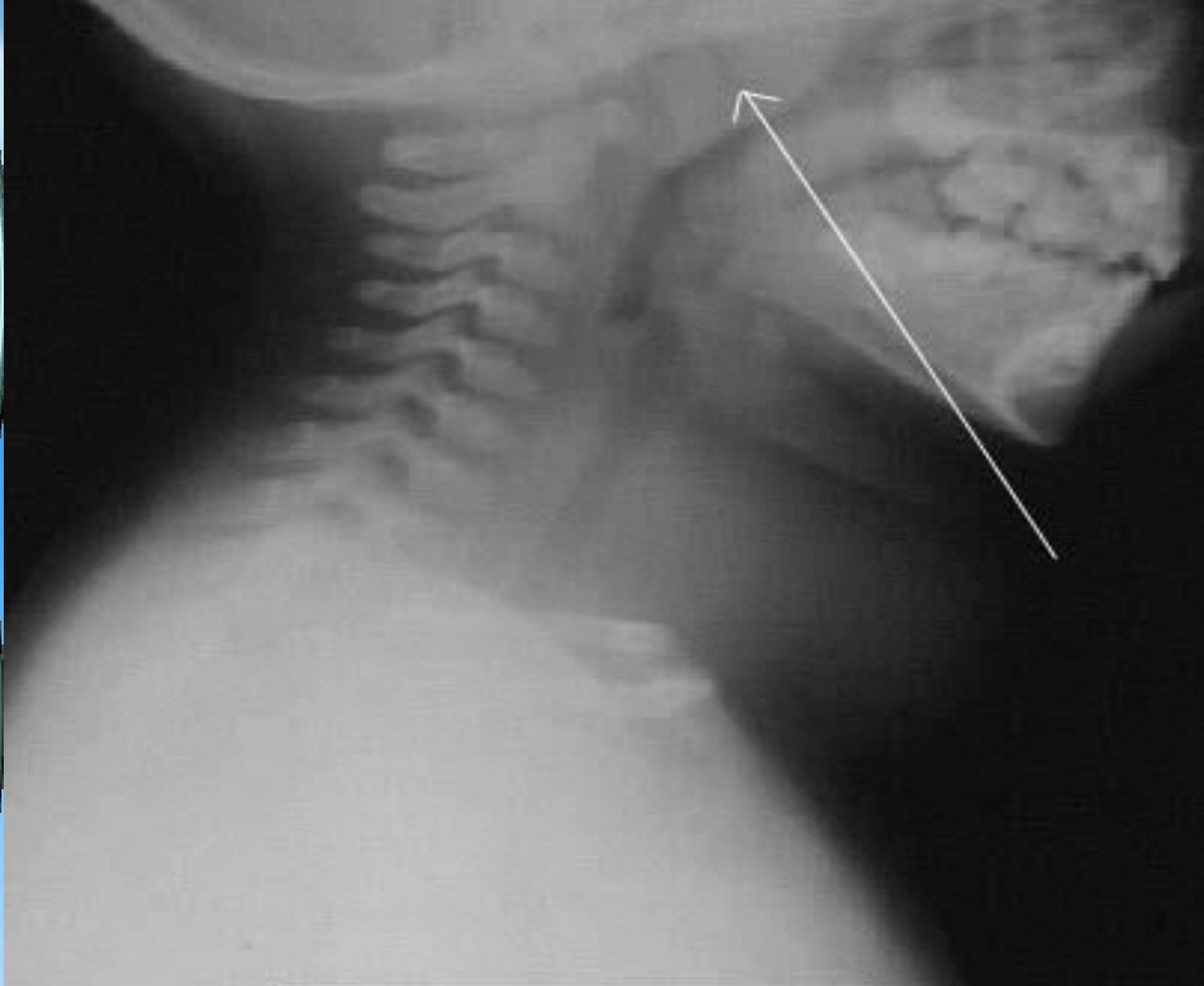




Radiological Investigation:

1. X-ray nasopharynx L/v view-
Enlarge adenoid.
2. X- ray PNS O/M view-
Sinusitis





www.xray2000.co.uk





Treatment:

Removal of the aetiological factors



Medicine & Surgical

**Aim is to remove fluid &
prevent recurrence.**



Medical Treatment:

1. Topical decongestant, nasal drop

Xylometazoline (0.05%- 0.1%)

Oxymetazoline (0.025%-0.05%),

2. Steroid spray (Beclomethasone dipropionate)

3. Systemic decongestant (Antihistamine,
Pseudoephedrine)

4. Antibiotics (Amoxicillin for 6 weeks 20-40 mg/kg
body wt.)

5. Systemic Steroid for allergy

6. Valsalva





After 6 weeks if fluid persists then surgical treatment should be given

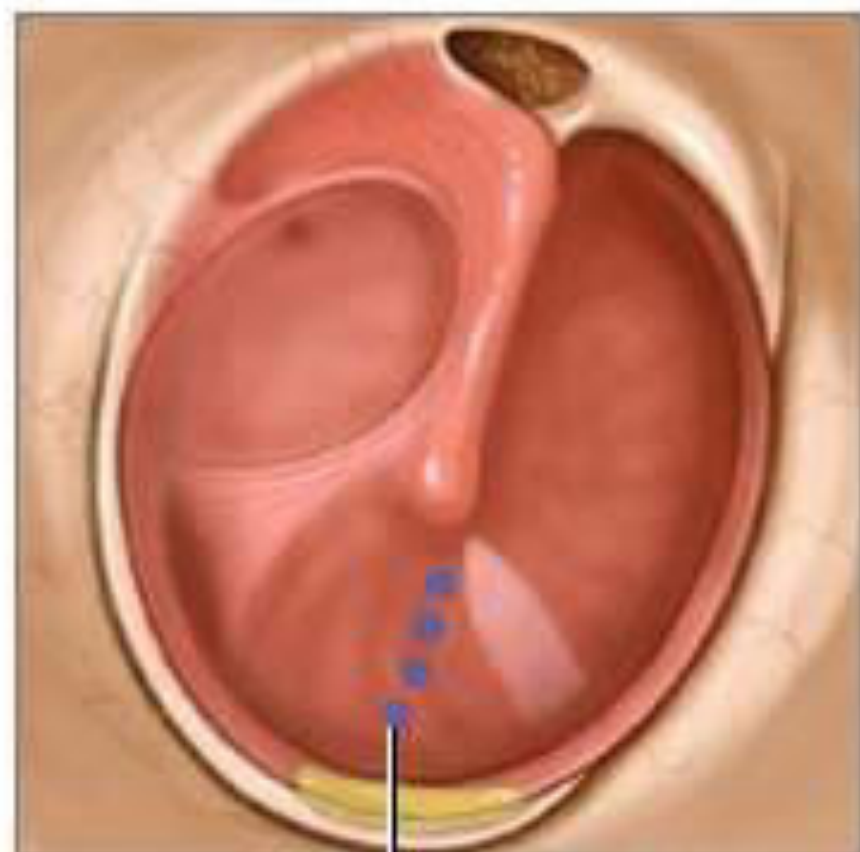
- Myringotomy & Aspiration of fluid with Grommet insertion,
- Grommet is expelled spontaneously after 6—18 months





1.5 mm





A small incision is made
in the tympanic membrane



Tube inserted
to drain fluid



copyright Michael Hawke MD

Sequelae of OME

1. TM & atelectasis of middle ear.
2. Ossicular necrosis
3. Tympanosclerosis---hyalinised collagen with chalky white deposit may be seen in TM.
4. Retraction pocket & cholesteatoma formation.
5. Cholesterol granuloma.



**Thank You
All**

