

Common ENT Disorders & Operations

10 – 11 March 2012

Macau

Common Otology Problems in Children

- Wax
- Preauricular sinus
- Acute otitis media
- Serous otitis media
- Foreign body

Pre-auricular sinus

- If there is no infection – no need for surgery
- If infection occurred – need definitive surgery to resect the sinus tract.

Acute Otitis Media

- Diagnosis : Otoscopy
- Treatment :
 - Oral antibiotics
 - + antibiotics ear drops if myringitis significant
 - Analgesics

Serous Otitis Media

- Diagnosis : Otoscopy & Tympanometry
- Treatment :
 - Antibiotics not necessary
 - Control nasal allergy
 - For insertion of grommets if fluid persisted for
 - > 3 months. Earlier is speech delayed

Less Common Otology Problems in Children

- Otitis externa
- Pinna malformation
- Microtia / aural atresia
- Chronic suppurative otitis media
- Trauma

Uncommon Otology Problems in Children

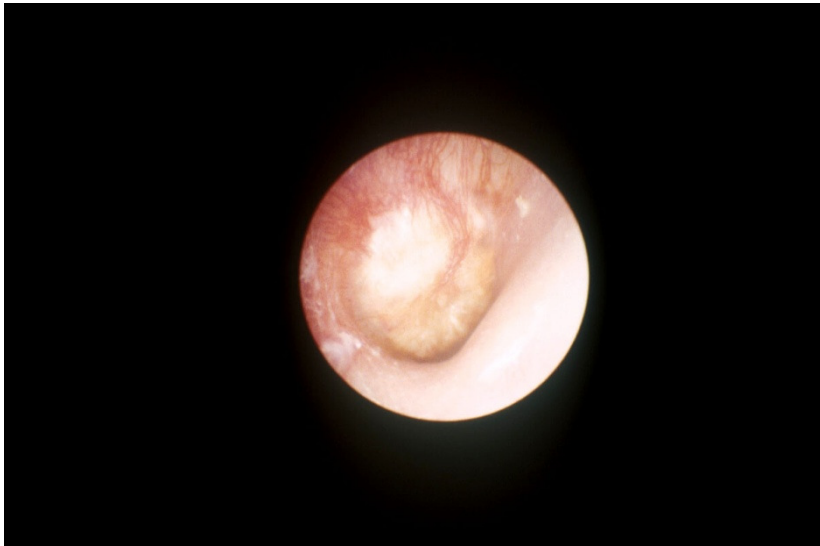
- High jugular bulb
- Congenital ossicular malformation
- Congenital cholesteatoma

Uncommon Otology Problems in Children

- Congenital cochlear malformation
- Congenital cochlear hearing loss without structural malformation -hair cell dysfunction
- Large vestibular aqueduct syndrome
- Congenital IAM stenosis

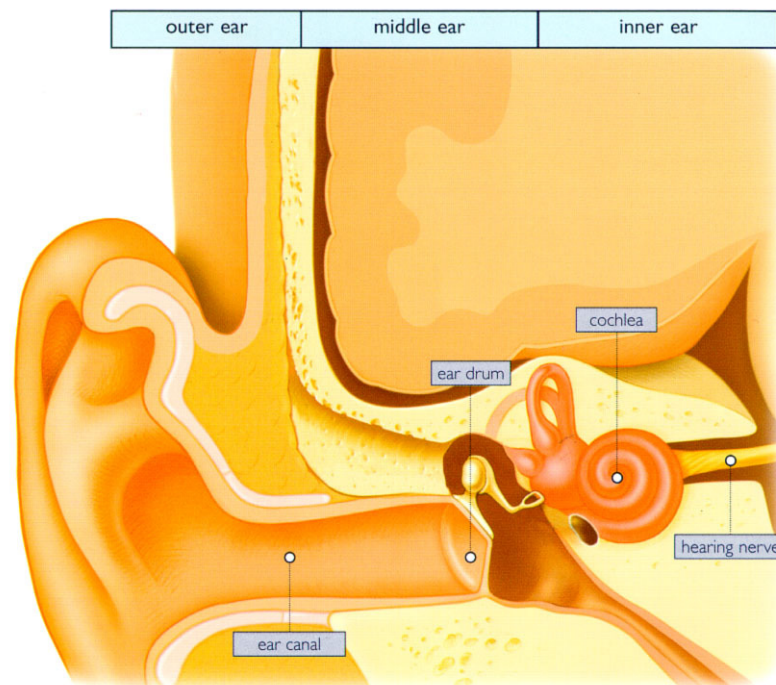
Congenital cholesteatoma

- White mass behind intact tympanic membrane
- Treatment - surgery



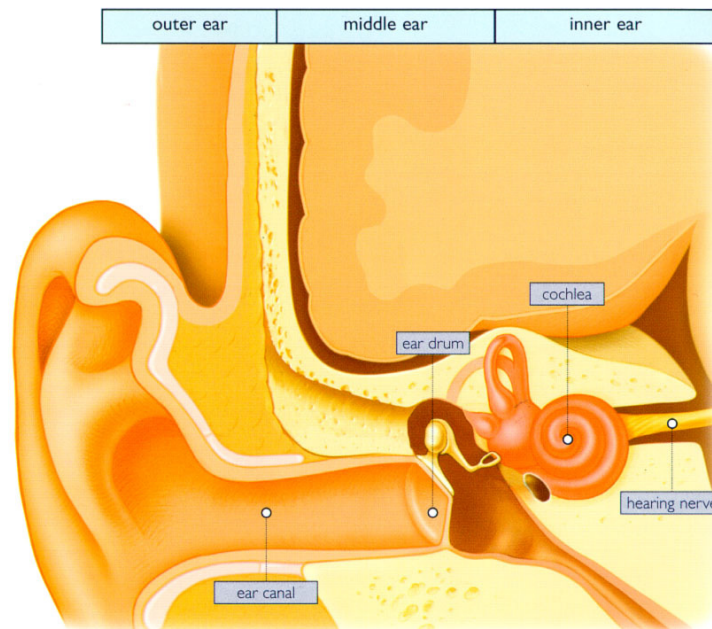
Common & Less Common Otology Problems

- Mostly outer and middle ear
- mostly mild and reversible effect on hearing



Uncommon Otology Problems

- Mostly middle & inner ear problems
- Mostly significant effect on hearing



Management of ear problems in children

Objectives

- 1, Provide adequate hearing ability for development of speech & language
- 2, Treat the underlying cause if possible

Management

Methods

- 1, Medical treatment
- 2, Otologic surgery to correct underlying cause
- 3, Hearing aid / Cochlear Implant

Cochlear Implant

Common Ear problems

Adult

- **CSOM – chronic suppurative otitis media**
- **Cholesteatoma**
- **Otosclerosis**
- **Presbycusis – degenerative sensorineural hearing loss**

Chronic Suppurative Otitis Media

pathology:

- Chronic infection of the middle ear
- Perforated tympanic membrane
- Ossicular erosion
- Tympanosclerosis

Chronic Suppurative Otitis Media

1, Treatment for infection:

- control active infection with antibiotics
- mastoidectomy will be necessary if the mastoid is also chronically infected

Chronic Suppurative Otitis Media

2, Treatment for hearing loss:

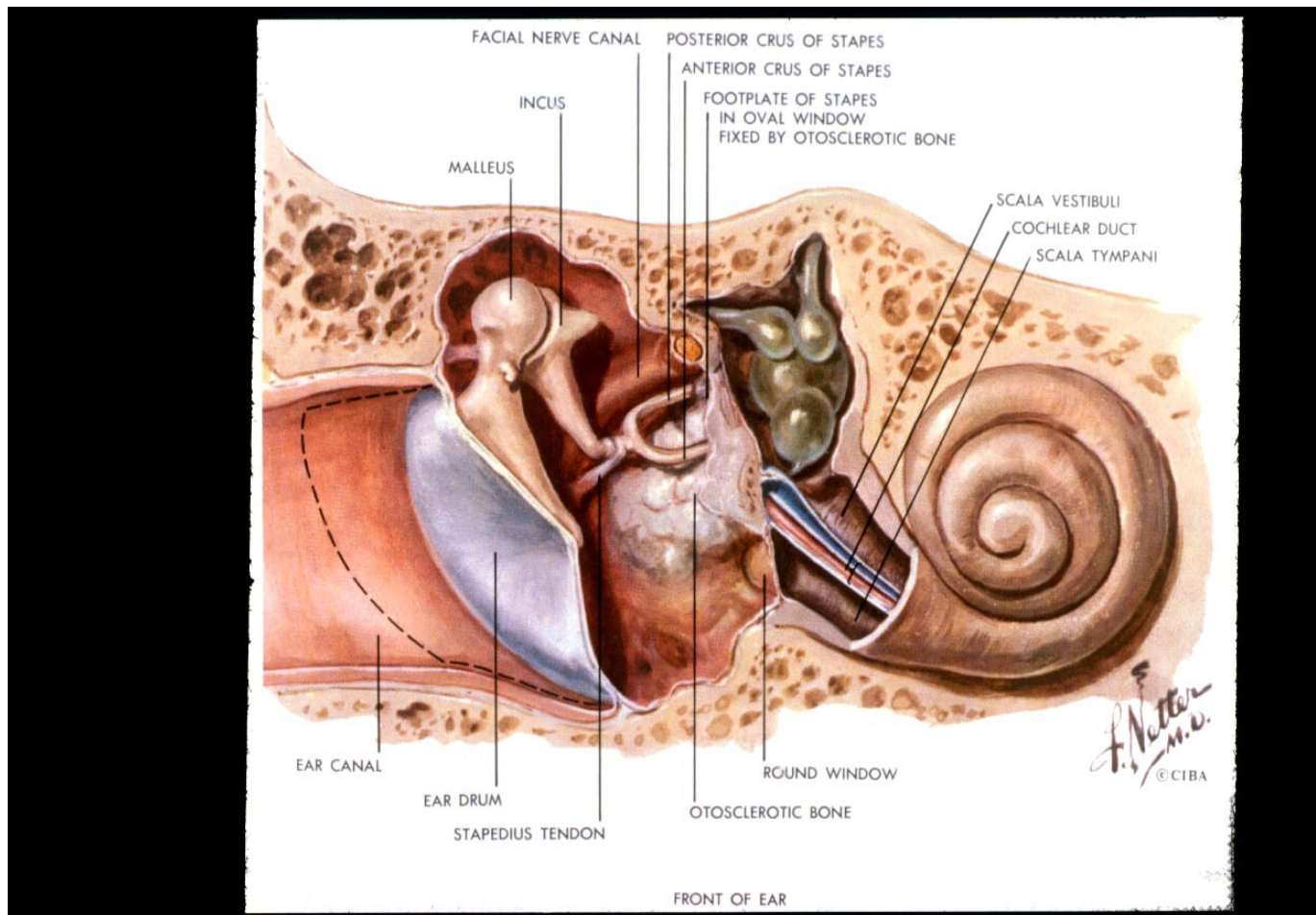
- Myringoplasty – repair the perforated TM
- Ossiculoplasty – repair the ossicles

Chronic Suppurative Otitis Media

2, Treatment for hearing loss:

- If surgery is contraindicated – hearing aid can be used

Otosclerosis



otosclerosis

Pathology

- Otospongiosis in the oval window
- Ossicular chain vibration affected

otosclerosis

Treatment for active disease

- Fluoride

otosclerosis

Treatment for hearing loss

- No treatment
- Hearing aid
- Surgery – stapedectomy, BAHA

Cholesteatoma

- Acquired instead of congenital
- Need surgery unless for very small lesion or in elderly patients

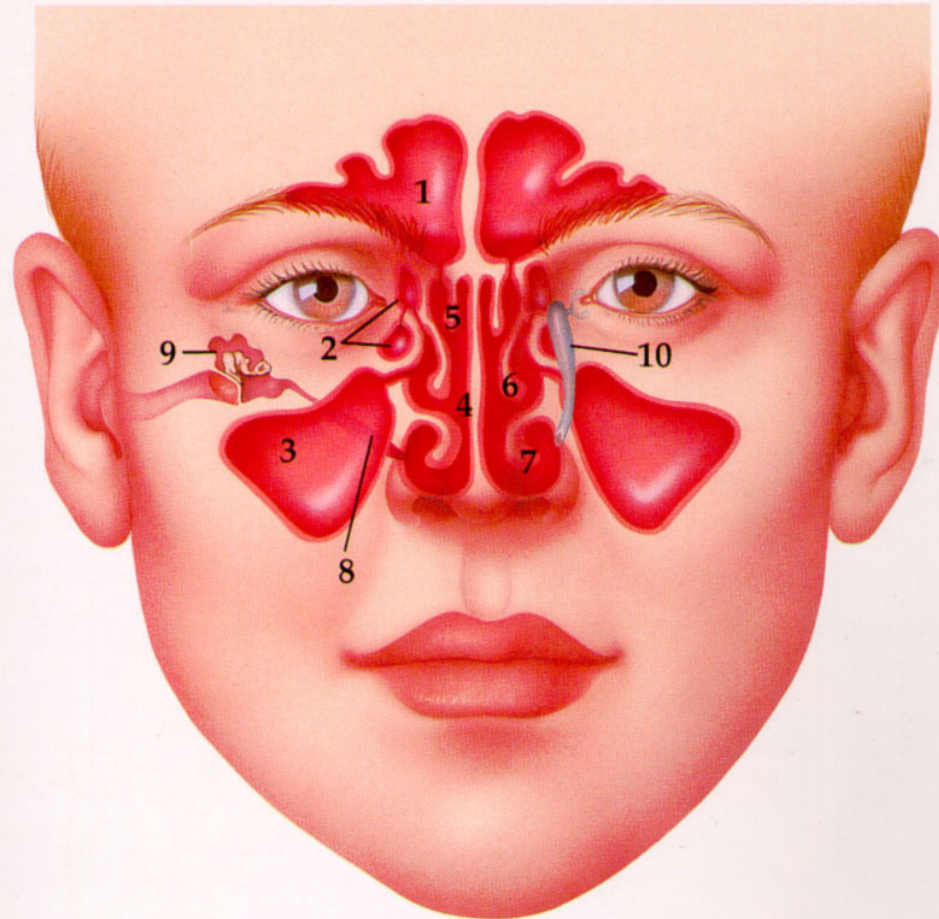
Bone Anchored Hearing Aid

Indication

- Aural atresia
- Conductive hearing loss + unable to use hearing aid
- Single sided Deafness

Nose & Sinuses

Normal Sinuses



- | | |
|--------------------|---------------------|
| 1. Frontal sinus | 6. Middle turbinate |
| 2. Ethmoid sinus | 7. Lower turbinate |
| 3. Maxillary sinus | 8. Auditory tube |
| 4. Nasal cavity | 9. Middle ear |
| 5. Upper turbinate | 10. Lacrimal duct |

Common Nasal Problems in Kids

- **Allergic rhinitis**
- **Sinusitis**
- **Nasal polyp almost never occur – beware!**

Allergic rhinitis

Symptoms

- Perennial in HK & Macau
- 4 symptoms : Sneeze, RN, nasal obstruction, itchiness
- Tend to be more severe in the morning

Allergic rhinitis

Treatment for children

- First line - Antihistamine
- Second line - Steroid nasal spray
- Third line - Antileukotriene

- Immunotherapy

Allergic Rhinitis

Surgical treatment

- Very limited role in children
- For relieve of obstruction only
- Turbinate reduction : Radiofrequency ablation or turbinectomy

Pediatric Sinusitis

- Definitive Diagnosis : depends on CT
- Plain XR : unreliable

Pediatric Sinusitis

Treatment for sinusitis

- Most response to antibiotics
- Need 3 weeks of antibiotics

Pediatric Sinusitis

Treatment for sinusitis

- Surgery seldom necessary for uncomplicated sinusitis
- Antral washout often enough
- If surgery necessary – check for immune deficiency

Pediatric Sinusitis

Complications

- Orbital abscess much more common

Less common nasal problems in kids

- **CNPAS (congenital nasal pyriform aperture stenosis) – Anterior nasal obstruction**
- **Craniosynostosis - Mid nasal obstruction**
- **Choanal atresia – CHARGE association**

Congenital nasal pyriform aperture stenosis

CNPAS

Presentation

- Almost same as choanal atresia
- However, obstruction at the front rather than the back

CNPAS

Treatment

- Mild – observe
- Severe – surgical repair through sublabial route

Mid nasal obstruction

Craniosynostosis

Mid Nasal obstruction

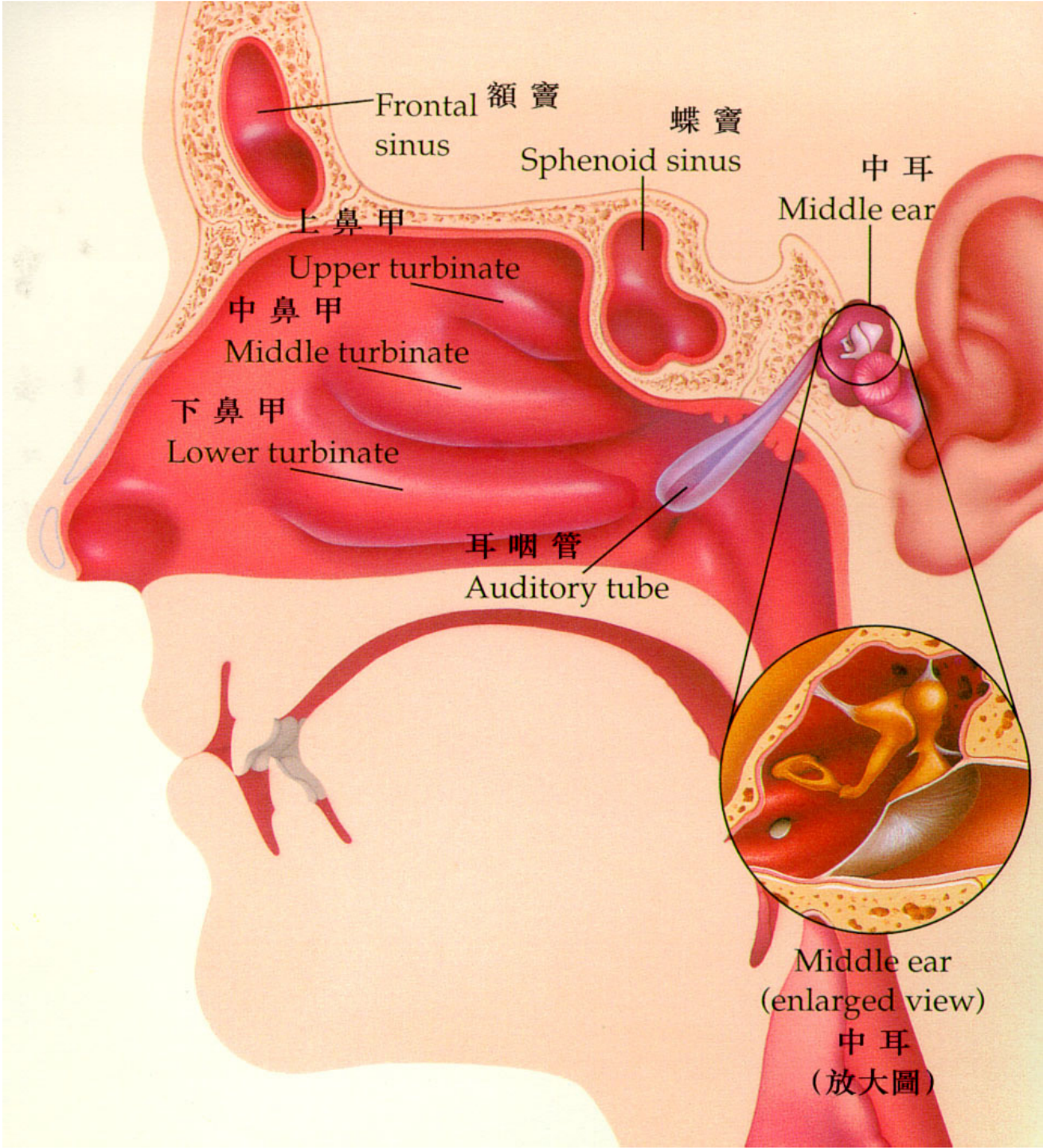
Craniosynostosis

- Apert Sx
- Pfeifer Sx
- Crouzon Sx

Choanal Atresia

Nasopharynx lesions

Adenoid



Tonsils

Common tonsil problems

1. Infection – acute or chronic
2. Obstruction – when it is too big

Tonsillectomy

Indications

1. Recurrent infection
 - make sure its tonsillitis
 - different criteria used, have to consider:
 - response to treatment
 - severity of attack
 - complication
 - occupation
 - sibling as carriers
 - availability of medical facilities
 - family background

Indications

2. Beta-haemolytic streptococcus carrier
with recurrent nephritis
3. Infective complications
 - quinsy, parapharyngeal abscess
 - suppurative cervical lymphadenitis
4. Obstructive
 - dysphagia
 - respiratory obstruction / OSA

Indications

5. Dental complications
 - malocclusion
6. Chronic tonsillitis
7. Suspected malignancy
 - unilateral enlargement
 - abnormal looking tonsils
 - ulceration

Indications

8. Part of uvulo-palato-pharyngo-plasty (UPPP)
9. Tonsillectomy for surgical access
 - long styloid process
 - glossopharyngeal nerve section
 - submandibular duct relocation

Contraindications

1. Recent infection
 - increase risk of bleeding
 - spread of infection
2. Bleeding tendency
3. Cleft palate
 - velopharyngeal insufficiency
 - rhinolalia aperta

Contraindications

4. Inadequately treated asthma
5. Body weight < 15kg
 - 75 ml of blood/kg BW
 - 100 ml= 13% of blood for 10 kg child
6. After polio vaccination
 - wait for 6 weeks

Mortality

Incidence

1 in 20,000

Causes :

1. bleeding

- hidden blood loss
- delayed replacement of blood
- inadequate post-op observation
- delay and in-decision

Mortality

Causes :

2. respiratory failure

- indiscriminate use of opiates - esp. in OSA
- airway obstruction - oedema, clot, fragments of tissue

3. anesthetic cause

Post-op nursing observation for bleeding

Principle

- The danger is not primarily in the amount of bleeding
- The real danger is because of the site of bleeding - exactly above the airway
- The danger is greatly enhanced after tonsillectomy because it is difficult to examine the throat of the child and because effect of anaesthesia which inhibit cough reflex

Therefore

- The nursing challenge is to pick up bleeding in such difficult situation
- Better be overcautious

Post-op nursing observation for bleeding

1. BP/pulse
2. Noisy breathing, frothing sound - blood in pharynx
3. Excess swallowing
4. Vomit blood
5. Signs of shock
6. Bleeding from mouth
7. Gargle with clear water
8. Inspect the wound

*Post tonsillectomy bleeding set should always be available in ENT ward

Micrognathia

Diseases of the larynx

Common diseases in Children

- Laryngomalacia
- Subglottic hemangioma
- Recurrent respiratory papilloma
- Subglottic stenosis

Laryngomalacia

Foreign body

Subglottic hemangioma

Recurrent Respiratory Papilloma

Congenital Subglottic Stenosis

Acquired Subglottic Stenosis

Nasopharyngeal Cancer NPC

NPC

Presentation

- Neck – swelling LN
- Ear – hearing loss from E tube dysfunction
- Nasal – epistaxis, post nasal drip etc.

NPC

Presentation

- early Dx possible
- Increase awareness
- Screening program
- endoscopy

NPC

Treatment

- Primary treatment always radiotherapy

NPC

Treatment

- RND for neck recurrence
- Nasopharyngectomy for NP recurrence

Common laryngeal diseases in Adults

- VC cyst/ polyp/ nodule
- CA larynx
- VC paralysis

CA larynx

CA larynx

Presentation

- Present early with husky voice
- Early Dx possible as flexible endoscopy is easily performed

CA larynx

Treatment

- Early – radiotherapy +/- chemotherapy
- Late – surgery + radiotherapy
- Recurrent – surgery + radiotherapy

VC paralysis

- Usually a result of recurrent laryngeal nerve dysfunction
- Thyroid disease
- Mediastinal diseases

Parotid lesions

Parotid

- Surgery often necessary for histology