How do we Teach ENT in UoB 2014

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Basic Structure

- Junior Medicine and Surgery
- 1 Week clinical attachment to ENT in small groups
- Tutorials within JMS.
- Additional practical experience in Primary Care and Paeds

- Knowledge base
- Clinical Skills
  - History taking
  - Examination of Ears and Neck
- Assessment at year 3 OSCE and year 5 DOSCE

Knowledge Base

- Basic anatomy
- Conditions Wax, Otitis Externa, Foreign Bodies
  Glue Ear, Otitis Media.
  Deafness, congenital / acquired
  Vertigo
  Rhinitis, Nasal Polyps
  Tonsillitis
  Stridor / Epiglottitis
  Head and Neck Cancer overview
  Facial Nerve weakness

When to examine the ear....

- When there are ear or hearing symptoms

- Facial nerve weakness – the facial nerve is in the ear
- Pyrexia of Unknown Origin (PUO) - because children often don't have symptoms of ear disease
- Intracranial infection – 50% of brain abscess start in the ears or sinuses
- Vertigo – the organ of balance is down the ear

Ear Examination

- Examine the ear with an otoscope
- Assess the hearing with
  - Tuning Fork Tests
  - Whisper test

Ear Examination

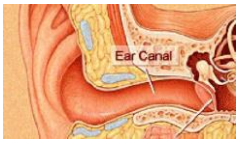
- Introduce yourself and explain what you are going to do

- Ask which is the better ear – examine that one first
- Ask if it is painful

- Examine around the ear (looking for scars or swellings)
- Examine the external auditory canal (a little wax is normal)
- Examine the eardrum and middle ear

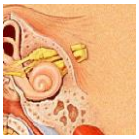
Hearing Loss

- We can distinguish 2 types of hearing loss clinically.
- This helps us to make an accurate diagnosis



Conductive

Sensorineural



Tuning fork tests – are genuinely useful

1. **Weber test**
   Place a vibrating 256 or 512Hz TF on the forehead
   Use counter-pressure behind with your other hand
   Ask in which ear the patient hears it louder

The sound latereralises ….**towards** a conductive loss
…….. **away from** a sensorineural loss

Didn't hear it at all ? – **sensorineural** hearing loss

Tuning fork tests – are genuinely useful

2. **Rinnes test**
   Hold a tuning fork in the air in front of the ear
   ask if the patient can hear it
   Place it behind the ear on the mastoid bone (with counter pressure)
   ask if it was louder in front of the ear or behind

Louder **behind** = "Rinne negative" – suggests a **conductive** loss
Louder In **front** = "Rinne Positive" – **normal** hearing or a **sensorineural** hearing loss

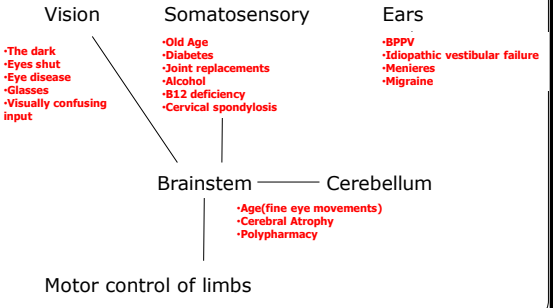
Didn't hear it at all ? – **sensorineural** hearing loss

How bad is the hearing loss

- **Whisper Test**
  Explain what you're going to do
  You will ask the patient to repeat some numbers to you

  To test the Left Ear:
  block the right ear (tragus) with your left hand
  say a 2 digit number clearly into the left ear
  – make sure that the patient repeats it
  say further different 2 digit numbers getting progressively quieter until you find their hearing "threashold"

Balance control

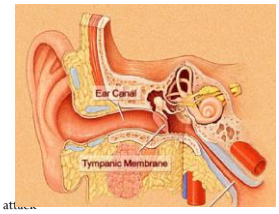


Benign Positional Vertigo

- Rotational vertigo when lying down and turning to one side. Milder when sitting up looking up or bending down
- Silt in a semicircular canal
- Dix-Hallpike positional test – Torsional nystagmus
- URTI Labyrinthine pathology Head Inj
- Frequently coexists with other Vestibular pathology

Acute vestibular failure

- Labyrinthitis
  - Viral
  - Bacterial
  - Ototoxicity
- Vestibular neuritis
- An attack of Menieres ?The first attack
- Trauma
- Acoustic Neuroma ??



Acute vestibular failure

- Rapid onset
- Severe **continuous** rotational dizziness
- Horizontal nystagmus
- Settles spontaneously over ~ 7 days

- Prochlorperazine (Stemetil/Buccastem) prn 1/52
- Prednisolone 30mg od 1/52

Acute vestibular failure

- As soon as patient starts to get better:

  Stop Stemetil

  Start exercising

- May take months to improve

Key reference: Hillier S. Vestibular rehabilitation for unilateral peripheral vestibular dysfunction. Cochrane Database 2007

Vestibular Rehab

- For all patients with vertigo – organic or otherwise

- Avoidance Substitution

Balance is learned by experience

Physical exercise
Motivation
Physiotherapy

Meniere's Disease

- **Episodic** (maximum 3 per week)
- Presumed pathology of raised endolymphatic pressure causing variable inner ear symptoms
- Limited evidence but a clear pattern of disease
- Vastly overdiagnosed – "My Granny has Menieres"

Menieres

Often starts in the early morning
Tinnitus – low pitch
Hearing loss / distortion / discomfort
Impending unsteadiness
Rapid onset severe vertigo
Vertigo recovery
hearing recovery

- Return to normal between attacks
- Each attack will gradually worsen the hearing

Meniere's

- Management Aims
  1. Prevent
  2. Treat acute attacks
- By preventing episodes of high endolymphatic pressure – fullness or vertigo
- We can then prevent recurrent episodes of small irreversible damage – SNHL
- Which, in the long term will preserve hearing

Menieres Prevention

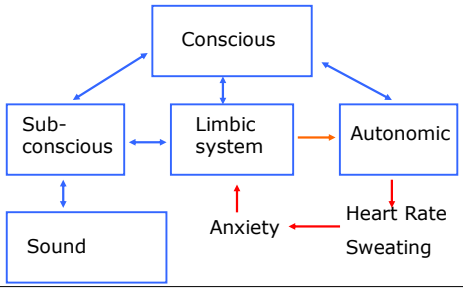
- Nil
- Diet – low salt, caffeine and alcohol
- Betahistine 16mg tds
- Thiazides
- Intratympanic Gentamicin
- Surgical Labyrinthectomy
- Vestibular nerve section

Migrainous vertigo

- Recurrent attacks of spontaneous or positional rotatory vertigo
- May or may not have Headache
- Basilar migraine – vertex headache
- May have visual or other sensory disturbance
- Normal clinical examination
- Normal audiogram and MRI

Tinnitus

– Quote from Post-grad GP Curriculum "Demonstrate empathy and compassion towards patients with incurable disabling ENT conditions e.g. Tinnitus"



Head and Neck Cancer

- 12,000 cases per year in UK

Mouth	larynx
tongue	oropharynx
tonsil	nasopharynx
nose and sinuses	hypopharynx

Aetiology

- Genetics
- Environment
  - Smoking
  - Alcohol
  - Diet
- Oral Sex

Natural History

- Aggressive squamous cell carcinomas
- Locally destructive
- Metastasise to regional lymph nodes
- May present as a lymph node

Red Flag Symptoms

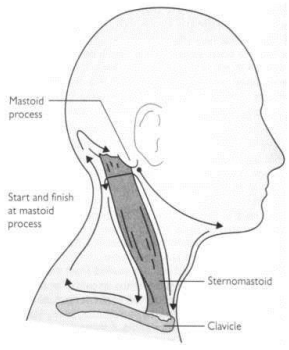
- Hoarse voice for >3 weeks
- Unexplained neck lymph node / swelling
- Dysphagia
- Unilateral tonsil enlargement

Red Flag Symptoms

- *Almost any symptom may be caused by a tumour*
- Unilateral nose bleed.
- Unilateral Glue Ear
- Unexplained pain – glossopharyngeal Neuralgia
- Isolated lower cranial nerve palsy 5, 7-12

A lymph node in the neck

- Vast majority will come from H+N disease
- **Infection** – teeth, mouth, throat, skin, ears
- **Malignant** nodes - usually large (>12mm)
  - usually hard
  - persist despite Abs
  - often have focal symptoms
- Refer to ENT – we can examine all the parts draining to H+N nodes
- Unless they have B symptoms suggestive of Lymphoma
- Appetite loss, night sweats, wt loss, Alcohol intolerance



Examination

H – "Hello"
E – Expose (down to clavicles)
L - Look
P – Position (the pt away from the wall)

Inspect
Palpate
Percuss
Auscultate

Examine the lymph nodes in a systematic fashion

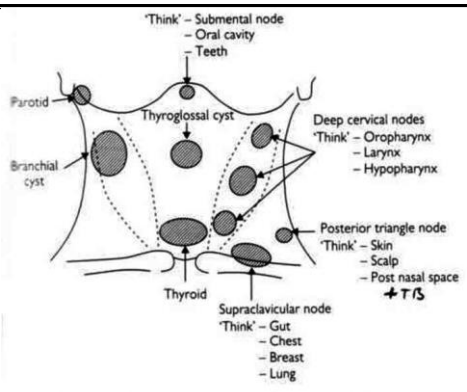
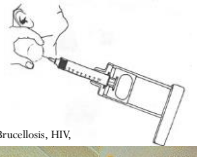


Diagram of the neck lumps by position and likely diagnosis.

Neck Lump Investigations



1. History and Examination
2. Ultrasound-guided FNA
3. Bloods: FBC, ESR, CRP ± Paul-Bunnell, Toxoplasma, Bartonella, Brucellosis, HIV, (Mantoux skin test if ?TB)
4. CXR
5. CT neck ± chest
6. MRI
7. Barium Swallow
8. (Pan-)Endoscopy (± open biopsy)