

ENT Teaching

Lumps in the Neck

Divided into anterior and posterior triangles by SCM. Further subdivisions as below.

Submandibular

- Between digastric and mandible
- Lumps:
 - Lymph nodes
 - Submandibular or tail of parotid salivary glands
 - Calculus
 - Infected
 - Tumour
 - Obstruction
 - Tense, painful swelling
 - On eating, slowly resolves over hours
 - Returns on next eating
 - Dental abscess (rare)

Submental

- Between hyoid and anterior belly of digastric
- Lumps:
 - Lymph node
 - Supra-hyoid thyroglossal cyst
 - Dermoid cyst
 - Dental abscess (rare)

Carotid

- Anterior to SCM, between SCM and omohyoid
- Lumps:
 - Jugulo-digastric lymph nodes
 - Branchial cyst
 - Carotid body tumour (usually benign)
 - Vagus
 - Schwannoma
 - Neuroma
 - Paraganglioma

Muscular

- Between hyoid, SCM, and omohyoid, anterior to omohyoid
- Lumps:
 - Thyroid
 - Nodule
 - Cyst
 - Cancer
 - Papillary
 - Follicular
 - Medullary
 - Lymphoma
 - Anaplastic carcinoma

- Adenoma
- Dominant nodule of MNG
- Diffuse enlargement (soft)
 - Graves
 - Early thyroiditis
 - Physiological
 - Pregnancy
 - Puberty
- Multinodular goitre (MNG)
 - Later thyroiditis
- Thyroglossal cyst
 - Thyroglossal duct terminates at foramen cecum
 - Midline lump, rises on tongue protrusion
 - 20% above hyoid, remainder below
 - Risk of infection, potential to form discharging fistula
 - Treatment – Sistrunk’s procedure
 - Excision of cyst and full duct, including middle part of hyoid
 - Scan first to check lump isn’t the only functioning thyroid tissue
- Laryngeal tumour
- Lymph nodes – pre- and para- tracheal

Supraclavicular

- Inferior to SCM and omohyoid
- Lumps:
 - Thyroid
 - Cervical rib
 - Lymph nodes
 - Especially mets
 - Gastric carcinoma
 - Troisier’s sign – palpable Virchows node
 - Lung cancer
 - Breast cancer
 - Others – less common

Posterior

- Lumps:
 - Lymph node

Lymph Nodes

- Groups:
 - Submental
 - Submandibular
 - Pre- and post- auricular
 - Occipital
 - Upper (inc. jugulodigastric) and lower (inc. jugulomohyoid) cervical (along anterior border of SCM)
 - Pre-tracheal
 - Posterior triangle
 - Supraclavicular

- Enlargements:
 - Infection
 - Local – dental, tonsils, etc
 - Systemic – HIV, TB, toxoplasma, glandular fever, etc
 - Tumour
 - Primary (lymphoma)
 - Secondary (mets) – local or systemic
 - Miscellaneous
 - Rheumatoid
 - Sarcoid
 - Wegener's
 - etc

Salivary glands

- Parotid
 - Site of 80% of salivary gland lumps
 - 80% of these are benign
 - 80% of these are pleomorphic adenomas
- Submental
- Sublingual
- Minor
 - 80% of lumps here are malignant

Outer and Middle Ear

Referred pain from throat (sensation via IX)

Ear Canal

- Otitis externa
 - Advise to keep water out of ears
 - Topical antibiotics
- Swimmers osteoma
 - Often incidental finding
 - Benign, hard nodule
 - Usual history is of much swimming in cold water
- Wax

Middle Ear

- Acute Otitis Media
 - Tympanic membrane red and bulging
 - Can lead to acute mastoiditis (if discharge to mastoid)
 - Often Hib, Staphylococcus, S. pneumoniae
- Glue ear
 - Ear drum may retract
 - Treated with grommet insertion
- Chronic Suppurative Otitis Media (CSOM)
 - Tubotympanic
 - Around Eustachian tube and pars tensa
 - Tend to be 'safe'

- Atticoantral
 - ‘Attic’ region, mastoid antrum
 - More likely to be cholesteatoma
- Perforation
 - Classed as CSOM. May or may not be infected
- Retraction pocket
 - May progress to cholesteatoma
- Cholesteatoma
 - Dead skin in middle ear
 - Usually lateral to drum
 - May become infected
- Complications
 - Up – Meningitis, brain abscess
 - In – Cochlea (vertigo, sensorineural hearing loss)
 - Back – Mastoiditis -> Infected sigmoid sinus, infected thrombosis
 - Rarely – facial nerve
- Management
 - Medical
 - Antibiotics for acute infection
 - Surgical
 - Repair perforation
 - Excise cholesteatoma
 - Mastoidectomy
 - Cortical (e.g. for mastoiditis)
 - Modified radical (e.g. for cholesteatoma)
- Trauma
 - Traumatic perforation
 - Barotrauma (e.g. flying if unable to equalise pressure)
 - Haemotympanum (will eventually absorb)
 - # temporal bone
 - Haemotympanum
 - Battle’s sign (late)
 - Facial nerve injury
 - Sensorineural hearing loss

Vertigo

Differentiate from ‘dizziness’ – true vertigo is sensation of rotation, either or surroundings around patient or patient within surroundings. Vertigo implies a disorder of the vestibular system.

Peripheral – symptoms provoked by movement

Central – symptoms independent of movement, may also have ataxia

Timecourse:

- <30s – Benign Positional Vertigo. Provoke with Hallpikes test.
- 2-4hrs – Menieres disease. Associated with tinnitus and hearing loss.
- 2-3 days – labyrinthitis (with hearing loss) or vestibular neuronitis (hearing normal)

Audiology

Conductive loss

- Max 40dB loss
- Loss of amplification, not discrimination

Sensorineural loss

- Can give any degree of loss at any frequency distribution
- Hearing aids are of limited benefit
- 99+ sensory to each neural
- Neurological – most commonly acoustic neuroma
- Mumps, measles, gentamycin – cause sensory deafness
- In sensory loss, cochlear implants before age two will give normal speech and language by age five

Audiometry:

- Measure thresholds
 - Pure tone, reduce in 10dB, increase in 5dB steps
 - 250-8000 Hz (wider than speech spectrum)
 - Quote in dB (hearing level) – 0 is ‘normal’, +ve is loss
- Use bone conduction thresholds to discriminate between conductive and sensorineural loss
- Noise induced loss (acoustic trauma) tends to give notch at 4kHz
- Presbycusis
 - Age-related sensorineural loss of higher frequencies

Hypertrophy/Infection

	Tonsils	Adenoids	Ears
Hypertrophy	<ul style="list-style-type: none">• Dysphagia• Obstructive sleep apnoea	<ul style="list-style-type: none">• Nasal obstruction• Runny nose• Obstructive sleep apnoea	<ul style="list-style-type: none">• Mucocoele – ‘Glue ear’• Worst effect on speech if age 1-3• Up to 30dB loss• Treat with grommets
Infection	<ul style="list-style-type: none">• Pain• Dysphagia	<ul style="list-style-type: none">• ‘Snotty’ nose	<ul style="list-style-type: none">• Acute Suppurative Otitis Media• Pain• Pyocele• Out – Once - relieves pain, Multiple - scarring• In – mastoiditis or meningitis

Epistaxis

Blood supply to nose is via branches of internal (internal and external ethmoidal arteries) and external (maxillary artery to sphenopalatine artery) carotid, and facial artery (septal branch of superior labial branch).

Local:

- Trauma
- Infection
- Neoplasm
- Idiopathic

Systemic:

- Hypertension, mitral stenosis (prolong but do not initiate epistaxis)
- Clotting disorders (liver disease, drugs, congenital problems)

Treatment:

- Pressure (if anterior)
- Treat any underlying cause
- Diathermy
- Pack
 - Anterior
 - Nasal packs
 - Pre-treat with cocaine gel
 - Add adrenaline to saline used to expand
 - Posterior
 - Specific packs or Foley catheter
- Ligate artery
- BIPP – Bismuth Iodine Paraffin Paste
 - On ribbon gauze used as pack
 - Old fashioned, but useful as last resort

Deglutition

Deglutition (Swallowing) ~580 times/day

Four classical phases:

1. Oral preparatory phase
2. Oral phase (bolus moved posteriorly)
3. Pharyngeal phase (~1s)
4. Oesophageal phase (~8-20s)

Dysphagia

- Common complaint
- Physical problem swallowing, *not* FB sensation unless associated with other problems, e.g. referred pain to ear
- Acute
 - Inflammation – Tonsillitis, pharyngitis, aphthous ulcers
 - FB
 - Caustics

- Chronic
 - Neuromuscular
 - Intrinsic – neoplasm, oesophageal stricture, pharyngeal pouch, achalsia
 - Extrinsic – thyroid, spine, vascular

Globus pharyngeus

- Beware – is there an organic cause?
- No true dysphagia
- Anxiety
- Acid reflux often a cause – try PPI

Dysphonia

Organic

- Acute laryngitis
 - Infective/traumatic/polyps
- Chronic laryngitis
 - Smoke/alcohol/abuse/GORD
- Neoplasm
- Neurological
 - Central
 - Pseudobulbar palsy, Cerebral palsy, Multiple sclerosis
 - Peripheral
 - MND, Vagus or recurrent laryngeal lesion, Idiopathic
- Systemic
 - Hypothyroid (oedema), Rheumatoid arthritis

Non-organic

- +/- secondary organic
- Poor voice care
 - Habitual dysphonia
 - Prolonged misuse
- Leads to secondary organic changes
 - Laryngitis, nodules, polyps

Tonsillectomy

Indications:

- Recurrent bouts of tonsillitis (>5/year, involving >2 days off work)
- Complications - Quinsy (>2/year_
- Suspicion of malignancy
- Obstructive sleep apnoea

ENT Emergencies

Perichondritis

- Tender auricle, induration, oedema
- Advanced – crusting and weeping, soft tissue involvement
- Cartilage will necrose if not treated -> cauliflower ear

Erysipelas

- Acute superficial cellulitis

Septal haematoma

- Swelling on both sides of nasal septum
- Fluctuant
- Needs drainage or cartilage will necrose

Furunculosis

- Possible in ear canal
- Otowick used to apply topical antibiotic

Fungal otitis externa

- e.g. Aspergillus
- Usually intense itch

Peri-orbital cellulitis

- Often spread from ethmoidal sinus

Stridor/Stertor

- Stridor within larynx, stertor above
- Need age, phase (inspiratory/expiratory), associated symptoms

Foreign body

- Narrow sites of oesophagus:
 - Crico-pharyngeus (most common)
 - Gastro-oesophageal junction
 - Aortic knuckle
 - Left main bronchus
- Bones
 - Most commonly lodge in tonsil
 - Also base of tongue, valleculae, piriform fossae

Tonsillitis

- Usually viral
- If bacterial, usually β -haemolytic strep – Tx with Penicillin V
- Exclude quinsy, Epstein-Barr Virus

#Nasal bones

- X-ray unnecessary
- Need to manipulate within 2-3 weeks

Useful hints

Asymmetric hearing loss – request MRI scan to exclude acoustic neuroma.

Dysphonia (hoarseness) lasting more than four weeks should always be referred for investigation.

Stroke gives one or more of four 'D's':

- Dysphagia
- Dysarthria
- Diplopia
- Dysfunction of motor or sensory function

Adult teeth are labelled 1-8 in each quadrant of mouth. Deciduous are A-E.