



The Master Surgeon Trust

ENT

Handbook

A guide for junior doctors

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Chapter 1: Otitis externa (OE)

- Common organisms: Usually perennial organisms: E Coli, Klebsiella, Staph/ Strep, Pseudomonas.
- Take a swab
- Microsuction as much debris as possible
- Start antibiotic/ steroid combination drops, Sofradex 3 drops TDS or Locortan Vioform (identical dose). Review patient within 5-7 days.
- In swimmers/ diabetic patients/ those not improving on Sofradex, think about Pseudomonas. Start Ciprofloxacin ear drops 2 drops BD for a further week and review. Oral Ciprofloxacin therapy may be initiated thereafter if minimal improvement.
- In the event of significant canal wall oedema and narrowing, absorption of topical therapy can be significantly impaired. Insert pope wick & start choice of drops. Such patients will need an emergency clinic follow up 2-3 days for removal of wick and further assessment.
- In unilateral OE, unresponsive after multiple therapies, suspect necrotizing/ malignant OE – especially if patients are diabetic, with an impaired immune response. Patient will invariably require CT of the temporal bones (base of skull) with fine cuts.
- Alternative therapy in severe eczematous reactions: A combination of Trimovate cream and Ichthammol Glycerine soaked ribbon guaze can provide marked relief. Removal required within 2-3 days, with further assessment.

Chapter 2: Bells palsy

- Always rule out other pathology: Questioning and examination, as well as an appreciation of the anatomy can invariably lead you to the location of a lesion. Ramsay Hunt, malignant OE, parotid pathology (malignant if facial palsy present).
- Ensure LMN lesion: NB forehead sparing in UMN pathology due to decussation of fibers from alternate side.
- Grade according to House Brackmann criteria (see below):

| Grade | Characteristics |
|--|--|
| I. Normal | Normal facial function in all areas |
| II. Mild dysfunction | <p>Gross:</p> <ul style="list-style-type: none"> • Slight weakness noticeable on close inspection • May have slight synkinesis • At rest, normal symmetry and tone <p>Motion:</p> <ul style="list-style-type: none"> • Forehead - Moderate-to-good function • Eye - Complete closure with minimal effort • Mouth - Slight asymmetry |
| III. Moderate dysfunction | <p>Gross:</p> <ul style="list-style-type: none"> • Obvious but not disfiguring difference between sides • Noticeable but not severe synkinesis, contracture, or hemifacial spasm • At rest, normal symmetry and tone <p>Motion:</p> <ul style="list-style-type: none"> • Forehead - Slight-to-moderate movement • Eye - Complete closure with effort • Mouth - Slightly weak with maximum effort |
| IV. Moderately severe dysfunction | <p>Gross:</p> <ul style="list-style-type: none"> • Obvious weakness and/or disfiguring asymmetry • At rest, normal symmetry and tone <p>Motion:</p> <ul style="list-style-type: none"> • Forehead – None • Eye - Incomplete closure • Mouth - Asymmetric with maximum effort |
| V. Severe dysfunction | <p>Gross:</p> <ul style="list-style-type: none"> • Only barely perceptible motion • At rest, asymmetry <p>Motion:</p> <ul style="list-style-type: none"> • Forehead – None • Eye - Incomplete closure • Mouth - Slight movement |
| VI. Total paralysis | No movement |

- Give Prednisolone 1mg/kg for 10 days (usually 40mg OD) [should then ideally taper down by 10mg per week to prevent an Addisonian event].
- Acyclovir if presenting within 48hrs for 5 days.
- If grade >3 then start viscotears + lacrilube nocte + tape eye shut at night + refer to outpatient ophthalmology within 1 week.
- Baseline audiogram can be done (involvement of stapedial muscle, resulting in hyperacusis).
- Arrange follow up in consultant led clinic in 6 weeks.

Chapter 3: Auricular haematoma/ Cystic chondromalacia / Auricular abscess

- Important to recognize and manage. If left can lead to permanent deformity of the ear.
- Unable to comment on cause of swelling until fluid is observed.
- Preceding history of trauma in the case of a haematoma.
- Aspiration usually always results in re-accumulation of fluid, thus I&D is definitive treatment.
- All of above will require I&D, as well as tamponade to ensure adhesion of skin to cartilaginous surface, as well as to prevent recurrence.
- Infiltrate copious amounts of Lidocaine within the skin, as well as the cartilaginous surface. Pass the syringe beyond the cartilage to infiltrate the inner aspect of the posterior skin surface. Incise along the area of greatest fluctuance, and preferably along the helical rim for cosmetic purposes. Drain by applying pressure. Now with two dental rolls (one on anterior and posterior surface of the ear) in place: Pass a stitch through the superior aspect of the anterior roll, through skin and cartilage, exiting through the anterior aspect of the posterior skin and roll. Now repeat the procedure in the lower aspect of the posterior dental roll to advance stitch through the skin, cartilage and lower aspect of the anterior roll. Tie with tension, so as to provide a tamponade. Apply several pads of gauze over surface, and apply further pressure by means of bandage.
- Oral Co-Amoxiclav 625mg TDS for 1 week + NSAIDs unless contra-indicated.
- Review in emergency clinic 3 days for review of swelling +/- re-drainage. Bandage usually removed at this point, with tamponade device removed after a further 2-3 days. One month follow up in consultant led clinic.
- Very rarely, I&D as well as tamponade cannot prevent recurrence. In this instance, the patient is booked in as a day case, and a silastic sheet inserted under GA.

Chapter 4: Vertigo

- These patients are NOT usually admitted into hospital under ENT. Ensure medics have ruled out stroke / TIA/ vertebrobasillar insufficiency as possible causes.
- Is this true vertigo? Feeling of motion/ room spinning? Are symptoms made worse by movement of head?
- Is there a diagnosis of BPPV? Have they been seen in previous dizziness clinics?
- If a diagnosis of BPPV is likely, and you are comfortable: Perform an Eply manoeuvre (a modified form of the Hallpike manoeuvre). See below:

Eply Manoeuvre:

1. Begin by sitting patient upright on a bed (ensure that when lying flat, their head extends beyond the edge of the bed). Rotate their head horizontally towards the ear causing the symptoms (approx 45 degrees). Maintain for one minute.
 2. Keeping head and neck in the same position get patient to lie down lie down predominantly on the side to which they have rotated their head towards. Their head must extend beyond the edge of the bed by approximately 10-15 degrees. Maintain for one minute. NB: This may provoke symptoms.
 3. While still lying flat on their back, slowly rotate their head towards the unaffected ear as far as possible or approximately 90 degrees. Maintain for one minute.
 4. With their head still rotated maximally towards the unaffected ear, slowly rotate their entire body towards the unaffected side. Keep their head and neck fixed as much as possible. If performed efficiently, patient should be able to visualize the floor. Maintain one minute.
 5. Finally to complete the manoeuvre, return patient to a seated position with their head up but flexed forward approximately 45 degrees. Maintain for one minute.
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- In the absence of hearing loss, with a several week history and a preceding coryzal bout, the diagnosis is invariably a vestibular neuronitis.
 - In an acute setting to obtain symptom relief: 12.5mg Prochlorperazine IM is usually sufficient. Maintain with Prochlorperazine 12.5mg TDS in acute attacks or Betahistine 16mg TDS long-term.

Chapter 5: Traumatic perforation

- Baseline audiogram should be undertaken to rule out ossicular chain damage.
- Should ideally be reviewed by own GP in 6 weeks, and If perforation persists, then GP to refer to appropriate consultant led clinic as a routine appointment for a potential myringoplasty.

Chapter 6: Epistaxis

- ABCD algorithm and resuscitate patient if applicable.
- If a major bleed requiring admission OR patient is on Warfarin, get A&E to gain IV access + bloods (including INR) + G&S.
- Apply pressure on fleshy part of nose for 10-15 continuous minutes, in a forward posture.
- A post-nasal drip despite the above manoeuvre being performed effectively means the bleed is likely to be posterior.
- Always observe the throat for evidence of a posterior bleed/ clot retention.

a) Anterior bleed:

- The most appropriate time to cauterize an epistaxis is when bleeding has recently ceased.
- Usually from Little's area/ Kiesselbach's plexus.
- Examine nose with thudichum speculum, and identify if bleeding point.
- Spray or apply cotton wool soaked with Co-Phenylcaine, and wait for absorption (2-3 mins)
- Cauterise area with silver nitrate cautery stick.
- Observe for an hour, and If bleeding has ceased: Discharge patient with topical Naseptin cream BD (unless allergic to peanuts) for 2 weeks to the affected nostril + 1st aid advice.
- If bleeding continues: Get a helper where possible. Will need to be packed with Merocel (lubricate pack with petroleum jelly immediately before inserting). Always insert in a posterior direction and completely horizontal, as any superior movement will prevent full advancement. Once inserted, soak with saline solution in syringe to enlarge pack.
- If bleeding continues, pack opposing side.

- If bleeding still persists - Possible posterior bleed and treat as such (see below).
- If nasal pack is likely to be in for >48hrs, start oral Co-Amoxiclav 375-625mg TDS (unless allergic).
- All patients admitted to the ward with epistaxis should have IV access at all times, regardless of whether IV fluids are needed.

b) Posterior Bleeding:

- This is a relative emergency, and even if confident with management, patient must be discussed with ENT registrar.
- Will require posterior packing with Foley catheter.
- Always ensure adequate view and all equipment is prepared prior to procedure being performed. 12G catheter is usually sufficient. You will usually require an assistant.
- Ensure adequate topical application of Co-Phenylcaine to provide vasoconstriction.
- Insert catheter tip with patient's mouth open. Inflate balloon tip when tip is visualized in the pharynx, and retract to apply pressure to affected bleeding point.
- With minimal tension applied, insert BIPP gauze surrounding catheter within the affected nostril.
- Fixate position of catheter by applying umbilical clip onto catheter to prevent retraction. There must be gauze applied directly below umbilical clip to avoid pressure necrosis due to contact with nose.
- Tape remaining catheter length to ear.
- Occasionally if bleed continues to persist, the opposing nostril may need to be packed with a Merocel.

NB: Do not routinely stop or reverse Warfarin. Even in the event of a posterior pack being inserted, a small dose is recommended to prevent latter complications with re-warfarinising patient. Pack is removed after a more prolonged period of time than in non-warfarinised patient. Aspirin is usually paused for 2 weeks after an acute episode of epistaxis. Discuss with medical team or cardiologist when other anti-platelet medications (e.g. Clopidogrel) are in use.

Chapter 7: Nasal fracture

- Ensure no septal haematoma present due to cartilage destruction. If a haematoma is present, it will require incision and drainage.
- Assess air entry bilaterally with tuning fork placed under exit points.
- Book patient into Emergency Clinic, 5-7 days after date of injury to enable a more accurate assessment in the absence of any immediate swelling.
- No formal imaging is usually required.
- Manipulation under local anaesthetic can be done within the Emergency clinic at that time.
- If requesting manipulation under general anaesthetic, then undertake pre-admission within Emergency Clinic and book accordingly.
- All manipulations will need to be done within 14 days of injury.
- If patient presents outside above period, they will need a formal septoplasty/septorhinoplasty. These patients will need to be referred to a consultant led clinic.
- Consolidate to patients that the aesthetics of the nose may not improve and the aim of manipulation is to help alleviate congestive symptoms.

Chapter 8: Quinsy (Peri-tonsillar abscess)

- IV access + inflammatory bloods + Paul Bunnell/ Monospot (glandular fever screen).
- Give IV Dexamethasone 4-8mg if any trismus.
- Spray area with Xylocaine.
- Attempt to aspirate using capped off white needle (maximum 3 attempts).
- Send any pus to microbiology in universal container.
- Admit patients to ward and start (check allergies):-
 1. IV Antibiotics: Usually Benzylpenicillin and Metronidazole unless allergic.
 2. IV fluids in the presence of dysphagia.
 3. Analgesia: Paracetamol PO/IV QDS, Diclofenac dispersible tablets 50mg TDS (can be used as oral rinse see below), Codeine Phosphate 30-60mg PRN (max 240mg daily)
 4. Diflam mouthwash QDS.
 5. PRN anti-emetic.
- Warn patients a further aspiration might be necessary 6 hrs later if re-collects.
- Recurrent quinsy is an indication for an elective tonsillectomy.

Chapter 9: Tonsillitis / Glandular fever

- Admit patient if clinically unstable or severe dysphagia resulting in diminished oral intake.
- IV access + inflammatory bloods + Paul Bunnell/monospot
- Admit patients to ward and start (check allergies):-
 1. IV Antibiotics, usually Benzylpenicillin (unless allergic).
 2. IV fluids.
 3. Analgesia as per peri-tonsillar abscess.
 4. Diflam mouthwash QDS.
 5. PRN anti-emetic.
- Discharge home once able to drink and eat.
- If glandular fever screen positive, discharge home with 1 week course oral antibiotics for presumed concomitant infection.
- Advise to refrain from contact activities for 3 months.

Chapter 10: Stridor

- Airway Breathing Circulation approach
- Inform on-call registrar early in all instance.
- Inform ITU as patient may require intubation.
- Oxygen/ Heliox + nebulized adrenaline.
- IV access + inflammatory bloods.
- IV steroids (Dexamethasone 4-8mg BD – TDS) +/- IV antibiotics if suspected epiglottitis/ supraglottitis.
- If stable and able to perform fiberoptic nasendoscopy (FNE), then can attempt to do so.
- Do not let FNE delay any other interventions as panendoscopy can always be undertaken once patient intubated.
- Surgical tracheostomy may be needed, and be prepared for the possibility of having to perform a crash tracheostomy.

Chapter 11: Post tonsillectomy bleed

- Primary if within 24hrs, and secondary thereafter.
- Most common at days 5-11.
- Small bleed could be a herald bleed and could be indicative of a major bleed.
- Admit for a minimum of 24hrs + bed rest irrelevant of how minimal a bleed may seem due to above reasons.
- Keep NBM + 2 wide bore cannulas + start IVI and IV antibiotics (Co-Amoxiclav) as most bleeds are secondary to infection.
- Analgesia if required.
- Hydrogen peroxide gargle (20mls) – diluted with sterile water in a ratio of 1 part HP and 6 parts water. Should be utilised 4hrly
- Ensure bloods sent for FBC + G&S + INR + Inflammatory markers.
- Inform on-call registrar in all instances.
- If large clot is visible in the tonsillar fossa, then this will most likely require surgical evacuation. If confident, this can be done in the emergency department, but be prepared for bleeding to deteriorate, and have facilities available to deal with such a scenario.
- Evacuation is performed using McGill's forceps. Have to hand, a gauze soaked in 1:10,000 adrenaline, and apply using forceps for as long as tolerated in a lateral direction rather than posterior (to prevent initiation of gag reflex).
- Occasionally, if bleed is small enough, a silver nitrate stick may be used to cauterize bleeding point.

Chapter 12: Foreign body ingestion

- Lateral soft tissue imaging of the neck is useful in cases where ingested objects are radio-opaque, but is not very sensitive.
- Signs on lateral soft tissue X-Ray that suggest foreign object present:-
 1. Visible foreign object.
 2. Pre-vertebral swelling.
 3. Loss of cervical lordosis.
- Common sites for lodging include behind tonsil, vallecula and piriform fossa.
- FNE required if good history.
- If patient presents on nights, is able to eat and drink and unable to do FNE overnight, can be seen in Emergency Clinic following day for scope.
- In unable to swallow/ meat bolus is lodged, admit + Diazepam 5mg + Hyoscine Butylbromide, IV (2 consecutive doses approximately 20mins apart)
- If symptoms still not improving, will need formal review under anaesthetic +/- bolus removal (pharyngo-oesophagoscopy).