Disclaimer:
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References:
1. Mr Matthew Trotter ENT surgeon, lecture RCGP Nov 2016
2. Mr Steve Frampton consultant ENT Best Practice Oct 2020
3. Dr Rakesh Chopra GPwSI MediConf webinar, May 2023
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Ear pathologies

- Infection due to damaged skin in the ear.
- Trauma (cotton bud, scratching)
- Dermatitis.
- Moisture.

Otitis externa

- Differentiating between the two.
- Otitis media tends to follow URTI, deep ear pain, release of the pain with perforation of the TM and discharge.
- Otitis externa tends to start with itch and pain, and then swelling and discharge develops.

Symptoms

- Discharge.
- Furuncle (boil)
  - Bacterial.
  - Candida.
  - Aspergillus.
    - Suction.
- Wax AND/ Pain
  - If only see wax and pt has pain, could be infection under the wax, as it is warm and moist i.e. perfect breeding ground.
- Severe pain.
- Immunocompromised.
- Discharge.
  - Malignant otitis externa
    - Necrotising of the temporal bone and soft tissue in the head and neck.
    - It's basically osteomyleitis of the skull base.
    - Often elderly or diabetic.
    - Pain in the ear which doe not fit with the examination findings.
    - They need long term Abx, often on IV Abx for 3/12.
    - Urgent referral.

Investigations

- Swabs
  - View one = take swabs if unresponsive to first treatment.
  - View two = swabs don't really matter as the concentration of the drops is so high that any Abx drops will work to kill everything, even if it says its resistant, it will work.

Management

- Otitis externa is rare in children. If persistent refer.
- Keep dry, even when ears are good if the suffer from recurrent infections.
- Lie down for 5 min when applying ear drops.
- Topical Abx. Avoid oral Abx.
- Topical moisuriser +/- topical steroid cream if dermatitis.
  - Ear plugs or cotton wool with vaseline.
  - Hair dryer on cool setting into ear if water enters.
  - Otomize, Softadex, ciprofloxacin drops etc.
  - Re: concerns with TM perforation = we know if perforated and actively discharging ear...the risk is less than the infection casing it !.
  - Use for 10/7.
  - The risk of ototoxicity is higher if you do not treat.
  - Topical potent steroid (e.g. Betnovate) on cotton bud just at enterance of ear canal, then press tragus to let it enter further in.

if fails after two Abx courses

- Refer for possible microsuction.

Otitis media

Management

- Avoid Abx unless:
- > 3/7.
- Bilateral.
- < 2y ago.
- Discharging.

Sudden sensorineural hearing loss

- Idiopathic (most common).
- Vascular.
- Viral.
- Atrogenic.

Techincal definition has to fulfil the 'Rule of three':
- New hearing loss occuring rapidly i.e. over < 3/72
- Affect three frequencies.
- Loss of 30dB.

- But we do not have access to audiology hearing test..
- ...hence, refer to ENT STAT.

Investigations

- Tuning fork
  - Rinne's = +ve i.e. AC>BC on affected side. Weber's = the normal ear would detect the vibration louder.

Management

If occured within last 30 days=
- Speak to ENT on-call STAT as they can determine if pt will benefit with steroids to reverse hearing loss, else can be permanent.
- Ideally start within 72 hrs of onset of hearing loss, but within 2/52 is still beneficial.
- ENT may use intra-tympanic steroids if 2-6/52 after onset.
- Or ENT may use both.
- Recovery for 32-65% but the recovery is very variable.
- Prednisolone 60mg OD for 7-10/7, then stop.
- Or Prednisolone 60mg 5/7, then ↓ by 10mg/day, then stop.

If occured >30 days ago =
- Refer urgently to ENT to be seen within 2/52.

Perforated TM

Management

?????
Traumatic perforation:
- If no sudden vertigo and no sensorineural hearing loss, simply monitor for 6/52.
- Keep dry. Most heal by that time. If discharging give drops. If does not settle refer at 6/52.

- If hearing loss refer.
- But if slap and hearing loss, refer acutely, as sciular chain problem might be present.

Chronic perforation:
- Keep dry.
- Drops for 10 days. If does not settle, refer for possible surgical repair.

- The perforation is not the problem. It's the symptomatic ones that are the problem.
Those are the ones to refer.
????????

Tinnitus

- Tes, it can be due to stress.

Subjective

Non-pulsatile

Unilateral

- Idiopathic.
- Noise induced.
- Intracranial tumour.

Bilateral

With hearing loss:
- Idiopathic.
- Presbyacusis.
- Noise induced.
- Medications.
- Meniere's disease.

No hearing loss:
- Idiopathic.
- Medications.
- Meniere's disease.

Pulsatile

Unilateral

- Idiopathic.
- Aneurysms.
- Vascular malformation.
- Glomus tumour.

Bilateral

- Idiopathic.
- Aneurysms.
- Medications.
- Hypertension.

- BP.
- FBC.
- If persistent, refer ENT.

Objective

- Patulous eustachian tube.
- Vascular.
- Neurological.
- TMJ disorder.
- Foreign body e.g. insect.
  - Rather than staying closed most of the time, the ET stays open.
  - Carotid artery bruit.
  - Venous hum.
  - AV malformation.
  - Vascular tumour.
  - Carotid atherosclerosis.
  - Dissection.
  - Paget disease.
  - Palatal myoclonus.
  - Idiopathic stapedial or tensor tympani muscle spasm.

Management

- Can leave for 6/52, if still there:
- Audiogram.
- MRI of IAM (r/o acoustic neuroma).
- Refer ENT.

- White noise, apps e.g. T-minus, Quiten, pillow with speakers.
- If trouble sleeping = low dose SSRI or amitriptyline.
- Tinnitus maskers (in ear device which are pitch matched to tinnitus).
- CBT.
- Refer to ENT if:
- Suicidal (plus to Crisis team).
- Vertigo.
- Sudden onset pulstatile tinnitus e.g. aneurysm.
- Tinnitus 2o head trauma.

Glue ear

- Any fluid in the middle ear without signs of acute infection.
- 80% of all children get at some point.
- Bimodal 2y and 5y.
- Often follows AOM.
- Essentially self resolving.

Symptoms

- In adults with glue ear the liquid is more runny so can get air bubbles.
- Hearing difficulty.
- Speech and language problems.
- Behavioural problems, inattention, withdrawn.
- Poor progress at school.
- Earache, fullness.
- Clumsiness/balance problems (30%).
- Intolerance of loud noises.
- Tinnitus/roaring/clicking.

Management

- In adult = nasal spray to open eustachian tube, but refer as well.

- Kids = 50% will be cured in 3/12 months. So just need monitoring.
- Key question is...is there hearing loss. If yes, refer, else there is no need.
- If already struggling with development, social interactions or there is educational difficulties, then refer early.
- Can Rx Otovent in older kids while waiting for ENT.
- If severe hearing loss (61dB) urgent referral within 2/52 to exclude additional sensorineural deafness.

Cholesteotoma

Management

- A ball of skin (keratin) in the wrong place = cholesteotoma.
- Looks like white tissue paper. But is a 3D structure, not flat.
- Wax is produced in outer third of ear, so if you see it on the TM alarm bells should be ringing.
- In the atic area , abnormality in this area is a red flag area.
- If see pink/red area it is granulation tissue.
- Retraction pockets need to be referred for monitoring.
  - Tympano sclerosis
    - Normal calcifiation of TM in the middle layer of the TM.
    - Looks like plaque on TM.
    - Due to past multiple episodes of otitis in the past.
    - Normal in 20% of population.

Management

- No treatment.

Button battery in nose

Management

- Button battery anywhere needs STAT referal.
- Goes through septum in 4 hours.

Granular myringitis

Management

- Looks like a pen wound.
- Loss of squamous epithelium
- Steroid drops. keep dry.
- If does not settle, refer.

Polyp

Management

- Signifies underling inflammation.
- Can give drops to see if settles, but otherwise refer as might be masking something else.

Ear wax

Management

- Ear wax drops.
- Ear syringing.
- Microsuction.
  - Olive oil or Na bicarbonate drops.
  - Avoid hydrogen peroxidase as more irritant and if TM perforation can cause pain.
  - They prefer olive oil to soften up the wax as it's easier to get out a clump of wax. Compared to NatBicarb/Otex which dissolve the wax and make it difficult to suck out (like trying to hover up ketchup).
  - Can perform even if TM perforation.

Nose pathologies

Epistaxis

- Descriptions of volume are notoriously inaccurate.

- Treatment is lubrication.
- Apply to the inside wall of the nare i.e. opposite the septum wall and then gently press the nare to spread the lubricant onto he septum.
- So can use Naseptin BD for 8/52.
- If run out of it, can simply use vasaline.
- Is equivalent to cautery (cautery can cause damage, and should only be done if acute bleed or in last 1/52).
- Gently blow bubbles through nose in water a few hours afterwards to clear out the crust and clots.

- Beware: if profuse bleeding in young boy think of angiofibroma (won't see it in 1o care). Refer to ENT.

- Beware: if profuse unilateral bleeding in adult = 2ww.

Septal perforation

- Often feel blocked as the normal laminar flow is disrupted, and just feels 'blocked'.

- If incidental = nil needed.

Nasal fracture

Investigations

- Septal haematoma
  - Soft swelling on septum.
    - STAT referral to ENT to drain and prevent cosmetic changes to the nose.

Management

- Must operate within 2/52 else bone sets.
- ENT want to see after swelling settled i.e. 5-7/7 after trauma.

Anosmina

Conductive

- Chronic rhinosinusitis.
- Nasal polyps.
- Allergic rhinitis.
- Gross septal deviation.
- Intranasal tumour.
- Granulomatous disease.
- Iatrogenic (nasal surgery, laryngectomy).

Sensorineural

- Viral/post-viral.
- Medication related.
- Lifestyle.
- Head trauma.
- Neurological (stroke, temporal lobe epilepsy, MS).
- Neurodegenerative disease (Alzheimer's, PD).
- Space-ccupying lesion (anterior cranial fossa tumour).
- Congenital (Kallmann's).
  - ACEI.
  - Diuretics.
  - CCB.
  - Statins.
  - Alcohol.
  - Smoking.
  - Cocaine.

Management

- If persisting > 2/52, can Rx intransal steroids.
- Evidence for short course of high dose oral corticosteroids in chronic rhinosinusitis, and 2/52 post viral.
- Basis for steroid is the same as for example Bell's palsy and acute hearing loss i.e. an acute neuronal injury that can be dampened with steroid.
- Supplements.
  - Zinc.
  - Vitamin A.
  - Omega 3.
  - Alpha lipoic acid.

- Refer ENT for nasal endoscopy.
- CT/MRI to r/o frontal lobe pathology.

Nasal fracture

Management

- If faical injury and nose swollen you cannot say if # present or not.
- So at 48-72 hrs review again.
- Refer STAT to ENT if:
- Any deformity compared to prior to the injury at 3-10 days (is a # until proven otherwise).

- You do not need xray to confirm it.
- Definately need to see ENT before 2/52 else they will not be able to do a simple reduction the # under general anaethesia which takes a few min. They may need more extensive procedure.

Septal haematoma

Management

- When you look straight up the nostrils you will see bilateral bulge (rarely unilateral).
- Flucuent swelling.
- Refer STAT to ENT to drain.
- If fail to refer, get saddle-nose deformity as the haematoma strips the perichondrium from the cartilage and the cartilage is avascular structure so necrosis and dies.

Throat pathologies

Laryngopharyngeal reflux (LPR)/ Silent reflux

- Very different to gastroesophageal reflux.

Symptoms

Intermittent and non-progressive:
- Discomfort in throat.
- Sore throat.
- Throat clearing/cough.
- Lump in throat.
- Mild hoarseness.
- Worse early morning.
- Usually deny reflux.

Management

- 15ml gaviscon advance (higher concentration of alginate) post meals and before bed for 3/12.
AND
- Omeprazole 20mg BD for 3/12.
- Most pt's improve after a few weeks, but some take months compared to GORD which settles quicker.

Peritonsillar abscess

Symptoms

Must have one of following:
- Trismus (restricted mouth opening due to inflammation of muscles).
OR
- Uvula deviation away from midline.

Management

- Refer to ENT STAT.

Post tonsilectomy lymphoid aggregates

Symptoms

- Case study =
- Pt with tongue piercing and recurrent 'throat infections'.
- had some glandular tissue at back of throat where the tonsills used to be.

Management

- ENT consultant said =
- A tongue piercing can increase the risk of infection in the throat so I would recommend removing it and do not replace it.
- The back wall of your throat has some lymphoid aggregates i.e. areas of mini tonsil tissue.
- It seems to me that this other lymphoid tissue has probably taken over the role of the tonsils which previously have been removed and it could well be your tongue piercing which is causing ongoing infection.
- Use salt water rinses.
- CT scan of neck to investigate further,

Adenotonsillar hypertrophy (child)

Symptoms

- Case study =
- Noisy sleeper.
- Very brief apnoeic episodes.
- Hyponasality.
- Dribbling with some words.
- Consonant simplification i.e. fish = fis.

Management

- ENT consultant said =
- Adenoids grow faster in children until 6y old.
- Only 3% adults have significant adenoids left so this ↑ post nasal congestion will likely not persist indefinitely.
- Limited evidence fluticasone nasal spray 1p ON both nostrils for 2/12, may ↓ adenoid size. Will not help tonsils.

- My feeling, particularly coming out of winter months, is that adenotonsillar surgery should be deferred for now and if any prolongation of the apnoeic episodes return to discuss surgery.

Glandular fever

- Mainly 15-25y.
- Incubation periods 4-7/52.
- Not particularly contagious unless share towels, utensils.

Symptoms

- Very swollen tonsils and covered in white discharge.
- Fatigue for up to 6/12 in some.

Investigations

- FBC.
- LFTs.
- Glandular fever test.
  - >20% atypical lymphocytes
    OR
    - >10% atypical lymphocytes with lymphocyte count >50% of differential.
  - Usually ↑ 2-3x ULN, normalises after 3/52.
  - If ↑ close to 10x, think CMV or toxoplasmosis.
  - Think HIV testing.
  - KISS (keep it simple stupid)
    - Just do EBV serology after 1/52 on all pt's regardless of age and immunocompetency.
    - Although techincally CKS/NICE recommend...

If >12y immunocompetent:
- Monospot test (hererphile antibodies) in the 2nd or 3rd week of illness.
- If test too early get false -ve.
- If -ve, rpt in 1/52.
- If clinically glandular fever and -ve result OR if rapid Dx needed (e.g. return to contact sport), do EBV serology.

If <12y immunocompromised:
- False -ve Monospot test is more likely in children and immunocompromised.
- Hence, use EBV serology after 1/52. This measures three antibodies.

Viral capsid antigen (VCA) antibodies.
- VCA antibodies are either:
- IGM which indicates acute infection, and disappears within 4-6/52.
OR
- IgG which indicates past infection, although it appears in the acute infection, peaks at 2-4/52, then persists for for life.

Early antigen (EA) antibodies.
- Appear in acute infection and usually undetectable after 3-6/12.
- Usually a sign of active infection.
- Hoever, 20% of healthy people have antibodies for yrs.

EBV nuclear antigen (EBNA) antibodies.
- Not seen in acute infection.
- Seen 2-4/12 later and persists for life.

Management

- Avoid contact sports for 4/52.
- Seek medical review if abdominal pain.
- Do not usually need to give Abx.
- Avoid amoxillin.
- If you do give Abx and they have a rash, this is hypersensitivity, rather than allergic reaction.