

ENT 5th Year revision lecture Gerard Kelly, ENT surgeon

LIST 1

otitis media*

ear wax

labyrinthitis

other causes of dizziness

otitis externa

deafness

epistaxis

rhinitis

nasal trauma and foreign bodies

sinusitis

acute tonsillitis*

acute pharyngitis*

acute epiglottitis

URTI

LIST 2

cholesteatoma

acoustic neuroma

nasal polyps

oral tumours

trigeminal neuralgia

Symptoms in ENT

Ear otorrhoea, otalgia, itch, hearing, tinnitus, balance

Nose nasal obstruction, rhinorrhoea, facial pain, smell, epistaxis, post nasal drip

Throat dysphagia, dysphonia, odynophagia, pain, neck lumps, weight loss

Acute otitis media = acute inflammation of the middle ear

aetiology

strep pneumoniae, haemophilus influenzae and moraxella catarrhalis

From Cochrane, evidence based medicine

Acute otitis media (AOM) is common in children, causing pain and deafness. Though AOM usually resolves without treatment, it is often treated with antibiotics. This review found that antibiotics are not very useful for most children with AOM. Antibiotics marginally decreased the number of children with pain at 24 hours (when most children were better), only slightly reduced the number of children with pain in the few days following and did not reduce the number of children with hearing loss (that can last several weeks). However, antibiotics seem to be most beneficial in children younger than two years of age with bilateral AOM (infection in both ears), and in children with both AOM and otorrhoea (discharge from the ear). There was not enough information to know if antibiotics reduced rare complications such as mastoiditis (an infection of the bones around the ear). Some guidelines have recommended a management approach in which certain children are observed and antibiotics taken only if symptoms remain or have worsened after a few days. This review found no difference between immediate antibiotics and observational treatment approaches in the number of children with pain three to seven days after assessment.

Treatment for acute otitis media

analgesia

amoxicillin (if antibiotics are to be used at all, most children will not need or benefit from antibiotics). What we sometimes do is prescribe antibiotics and tell the patient / parents to wait for 24-48 hours and if the child gets better, do not use the antibiotics but if they get worse / do not improve, then use the antibiotics.

Chronic otitis media

2 forms perforation & cholesteatoma (skin trapped behind the ear drum which can invade the mastoid bony air spaces)

treatment is topical antibiotics & steroid drops or surgery (systemic or oral antibiotics do not help much)

Wax

cerumen (ear wax) is produced in the outer third of the cartilaginous portion of the human ear canal, a mixture of viscous secretions from sebaceous glands and less-viscous ones from modified apocrine sweat glands

ear wax does not normally cause a hearing loss it is a problem with visualising the ear drum (tympanic membrane) BUT can block hearing aids

Deafness in children, glue ear

Glue ear = otitis media with effusion, very common cause of a hearing loss in young children. Treatment is watchful waiting (await natural resolution and retest hearing) or grommets (occasionally a short term hearing aid can be given). Grommet operation is the commonest operation in the UK, out of all operations.

Deafness

Hearing is tested by audiometry. An audiogram shows the hearing level in decibels (dB) over different frequencies of sound in the form of a graph.

Hearing loss mild = 20-50dB, moderate 50-70dB, severe 70-90dB and profound >90dB

A hearing aid can be used for hearing losses up to profound and then a cochlear implant could be considered if hearing aids are insufficient to amplify sound to a level that can be heard.

An **acoustic neuroma**, a benign tumour of the hearing and balance nerves, needs to be excluded in a unilateral sensorineural (inner ear) hearing loss. An MR scan will exclude or confirm an acoustic neuroma. Only 1-3% of people who have a unilateral sensorineural hearing loss will have an acoustic neuroma.

It is very important to identify deafness in children, if they have no hearing they will not develop language, but with hearing aids or a cochlear implant (an electrical stimulator of the inner ear) hearing can be supplied to allow the hearing centre in the brain to develop language. If this is not done by the age of 2 or 3, then the hearing centre of the brain will be taken over by another function and no matter then how much amplified to which the child is exposed, the chance to develop language is lost. Neonatal hearing screening uses otoacoustic emissions to identify children with a hearing loss and is done mostly before the baby leaves hospital.

Trigeminal neuralgia

Intense, usually one sided facial pain that last from a few seconds to several minutes or hours in paroxysms, may be described as an electric shock. May be a trigger area on the face so sensitive that touching or even air currents can trigger pain; may just happen with no trigger. Many patients develop the pain in one branch of the trigeminal, then over years the pain will travel through the other nerve branches.

Otitis externa

is a dermatitis and should not be treated with antibiotics, rather with cleaning the ear (aural toilet) and if necessary, steroid drops

Labyrinthitis

is inflammation of the inner ear usually causing hearing loss, tinnitus, vertigo

it is usually viral (vascular, autoimmune)

and treatment is supportive with short term antiemetics and vestibular rehabilitation exercises, to train and condition the balance system to repair

other causes of vertigo orthostatic hypotension, drugs, vertebrobasilar ischaemia

Often occurring in the elderly, these conditions can co-exist

Rhinitis and sinusitis

acute and chronic rhinitis and sinusitis (inflammation of the nose and para-nasal sinuses)

aetiology infective, allergic. Treatment for acute rarely needs antibiotics for chronic condition the use of regular nasal steroids (usually spray) is effective but sometimes surgery (endoscopic sinus surgery is needed).

nasal polyps are an extreme of chronic rhino-sinusitis (treated with steroids or surgical removal)

Orbital cellulitis / abscess

Usually secondary to ethmoid sinusitis and treated with antibiotics and decongestants (for cellulitis) or surgical drainage (for abscess)

Nasal trauma

Fractured nasal bones are common and treatment is to reset the fracture (nasal manipulation) or to let the bones heal in position if there is little or no deformity.

A nasal **septal haematoma** is an emergency and can result in abscess and loss of the cartilage of the nose. Treatment is to drain the haematoma

Acute tonsillitis and pharyngitis

Treatment ibuprofen 400 mg three times daily is recommended for relief of fever, headache and throat pain in adults with sore throat (in adults with sore throat who are intolerant to ibuprofen, paracetamol 1 g four times daily when required is recommended for symptom relief)

Antibiotics should not be used to secure symptomatic relief in sore throat

SIGN (scottish inter-collegiate guidelines network) says avoid antibiotics!

Severe cases Penicillin V QID for 10 days

Or a macrolide

Avoid ampicillin (including co-amoxycylav)

As they cause a rash in glandular fever

Antibiotics should not be used to prevent glomerulonephritis and rheumatic fever

For tonsillectomy: 7 tonsillitis in 1 year, 5 tonsillitis in 2 year, 3 tonsillitis in 3 years for tonsillectomy

Acute epiglottitis

rapidly progressive sudden infection causing inflammation of the epiglottis and supraglottis in previously well patient, bacterial (used to be haemophilus influenzae Type B (HIB) – but now children are vaccinated against HIB)

sore throat and hoarseness, high temperature, problems swallowing and respiratory distress with drooling, difficulty breathing, rapid noisy breathing often causing the person to lean forward and hyperextend the neck to enhance air exchange

treatment is an emergency in hospital with respiratory support, occasionally intubation in ITU or tracheostomy (now rarely needed). Rehydration, antibiotics, oxygen

Cancers of the head and neck are the 9th most common tumours. Almost all are squamous cell carcinomas (except BCC of the skin of the face), the most common site of the tumour is the larynx, caused by smoking and alcohol

Treatment consists of treating the primary disease and treating metastatic disease

Metastatic disease is to the neck, hardly ever to the rest of the body

Treatment is by radiotherapy, surgery or a combination of both

Small tumours tend to be treated by radiotherapy

Large tumours by radical surgery and post operative radiotherapy (chemo radiotherapy is now being used for some head and neck tumours to avoid surgery)