ENT Lectures

Introduction to Otolaryngology

- Pre-slides
 - Everything in *Lecture Notes: ENT* is required in the exam + a book called *Key Topics: Foreign Bodies* chapter.
- ENT is an acronym for Ear, Nose, and Throat. This is the layman's term. The medical term is otorhinolaryngology.
 - Oto: ears
 - Rhino: nose
 - Laryngo: larynx
 - HNS: Head and neck surgery, maxillofacial, plastic surgery is an overlap area.
 - Base of skull surgery Roof of the nose is the base of the anterior cranial fossa, etc.
- A patient comes through to our clinic with epistaxis (bleeding from the nose); physical examination will start before history passively. History is not always necessarily preceding the physical examination.
- History
 - Ear symptoms: Hearing Loss
 - hearing loss, ak.a. hearing impairment or deafness. When we say a person is deaf this doesn't mean that he doesn't hear me, this can be partial or complete deafness. other symptoms are ear pain (otalgia), discharge from the ear (otorrhea), tinnitus (hearing abnormal noise), vertigo (dizziness), ear itching, aural fullness (heaviness in the ear).
 - We have to ask the patient if its sudden or gradual, partial or complete, stable or progressive, constant or episodic, and unilateral or bilateral. We also have to tailor our treatment based on what the patient wants, what sort of occupation they have, etc. THe most important is bilateralism of the symptoms
 - Ear symptoms: Otalgia
 - We have to ask the normal SOCRATES associated with pain. Primary otalgia is a pathology in the ear, secondary is pathology outside of the ear (referred otalgia). Referred pain two organs with same innervation getting the same symptoms. This means that we have referred otalgia.
 - REFERRED OTALGIA IS MORE COMMON THAN PRIMARY OTALGIA.
 - THE MOST COMMON CAUSE OF OTALGIA IS REFERRED OTALGIA.
 - Thus we have to know the sensory supply for the ear and the organs that they supply to allow us to know where to look for secondary pathologies. We will be able to do that in the physical examination. Upon finding an abnormal ear, this

is primary otalgia. If the ear is normal in examination, this means that there is secondary otalgia.

- Sensory innervation of the ear:
 - Vagus nerve (X) gives a branch to the external ear → Arnold's branch of the vagus nerve for pain sensation.
 - Trigeminal (V)
 - V1 Opthalmic
 - V2 Maxillary
 - V3 Mandibular: this is the one that supplies the ear.
 - Glossopharyngeal (IX) gives the pharynx and might be a cause of referred pain in the ear.
 - C2-C3 in the cervical plexus giving us two branches, greater auricular nerve and lesser occipital nerve supplying the external ear.
 - Facial nerve (VII) is mainly a motor nerve (⅔ of the fibers); the rest are sensory. They give special taste sensation through the chordi tympani nerve.
 - V3: Trigemenal for sensation, pain, touch and temperature.
 - Posterior one third is glossopharyngeal (IX) for taste, pain touch and temperature
 - Which structures might have pathologies and may result in referred otalgia?
 - Oral cavity through trigeminal
 - Pharynx through glossopharyngeal
 - Nasal cavity through trigeminal
 - Dental through mandibular branch of the trigeminal
 - DENTAL IS THE MOST COMMON SITE OF ORIGIN OF REFERRED OTALGIA
 - TMJ through trigeminal
 - Larynx through vagus nerve (2 branches recurrent laryngeal and superior laryngeal nerve)
 - Cervical disc prolapse/occipitus skin lesion through C2-C3
- Ear Symptoms: Otorrhea
 - Colour blood-stained or not. If it's yellowish, bacterial infection. Greenish → pseudomonas aeroginosa (gram-negative bacilli) is one of the worst bacterias to have an infection from because it's multi-drug resistant.
 - History of trauma: clear, serous fluid due to CSF leak or otorrhea.
 - Character serous fluid from CSF, purulent \rightarrow bacterial infection, mucoid \rightarrow tympanic membrane perforation or rupture.
 - Tympanic membrane layers: Middle fibrous layer, outer layer is stratified
 squamous, inner layer → anything but stratified squamous. ADD THE LAYERS OF
 THE EAR AND THEIR COVERING
- Ear Symptoms: Tinnitus

- Objective and subjective tinnitus
 - Objective: examiner may even hear the tinnitus "TMJ problems "
 - 99.9% of the tinnitus is subjective; only the patient hears the tinnitus.
- Very common symptoms, 10% of the general population have tinnitus.
 Presbycusis (presby age related changes in hearing) due to nerves resulting in hearing loss. A lot of the older population like to stick the radio to their ears.
 This is so they can overcome or ignore the abnormal tinnital noise with a different kind of noise of their choice. Some of the 10% have tinnitus so severe that it is affecting their everyday function and environment. It will usually affect the patient more in night because it is a quiet environment.
- Pulsatile/nonpulsatile: one of the best descriptions of tinnitus. The patient might hear their heartbeat, which is pulsatile tinnitus. Anything can cause either. With pulsatile tinnitus, we have to think of a few things to rule out. Anything with hearing rule may cause tinnitus.
 - Causes of pulsatile tinnitus:
 - Carotid atherosclerosis
 - In the middle ear, we have the carotid artery running from below, curving anterior and inferior to the middle ear, going inside and then curving again and then anastamoses with the circle of willis. This kink at the very beginning with atherosclerosis at that area will cause the change of blood flow from normal to turbulent flow. This change will be right beside the ear.
 - AVM, carotid aneurysm
 - Glomus Jugulare Tumour
 - The venous drainage from the brain is the superior and inferior sagittal sinus, to transverse, lateral, sigmoid sinus. At the sigmoid sinus, we have the jugular bulb, which is right below the middle ear. Some cells in the jugular bulb form a tumour resulting in venous hum and pulsatile tinnitus.
 - Hypertension
 - Uncontrolled HTN patients will have bilateral tinnitus because the blood tension will increase on the blood vessels.
 - Hyperdynamic circulations
 - the blood will keep being turbulent → anemia polycythemia vera, thyrotoxicosis, pregnancy, exercise, fever, thiamine deficiency, Paget's disease of the bone (if it hits the temporal bone → new vascularization → turbulent blood flow)

- Ear symptoms: Dizziness/Vertigo
 - What is the difference between dizziness and vertigo?
 - Vertigo is a true rotatory movement of the patient, the things around him, or anything. Dizziness is a general term than encompasses vertigo as well. Anything may cause dizziness and/or vertigo. the inner ear comprises only 20% of cases of dizziness; ear is not the only cause behind dizziness. Hyper/hypotensive/glycemia, electrolyte imbalance are major causes of dizziness. tumour, MI, CVA, hemorrhage, cervical disc prolapse are other minor causes of dizziness.
 Hypo/hyperthyroidism, vitamin D deficiency are other causes of dizziness. NOT EVERY DIZZINESS → EAR CAUSE
 - Syncope, light-headedness, vertigo are kinds of dizziness.
 - A patient with dizziness or vertigo, we suspect the problem is in the ear. We ask the patient about the duration (excluding non-otological causes) and they respond with
 - Seconds and minutes especially related with changes of position →
 Benign Paroxysmal Positional Vertigo BPPV
 - Hours 2 days \rightarrow Menierre's disease
 - Days weeks \rightarrow Labyrinthitis or vestibular neuritis
 - we have to ask about the impact on daily life → is it getting better or worse?
 This will determine how aggressive we are in the management or treatment of the patient.
- Ear symptoms: Ear itching
 - Any inflammatory process in the external ear may cause itching.
- Ear symptoms: Aural fullness
 - heaviness in the ear
 - eustachian tube: connects the nasopharynx and the middle ear
 - Functions (3)
 - Ventilation of the middle ear
 - Equalization of the pressure around the tympanic membrane
 - drainage of the middle ear secretions
 - The middle ear is lined by mucosa. This mucosa goes through the eustachian tube down to the nasopharynx.
 - Prevents reflux of nasopharyngeal contents
 - By closing. The levator vili pallatini and tensor vili pallatini muscles will constrict. Salpingo
 - Tensor villi is supplied by the mandibular nerve from the trigiminal but levator villi and sulpingopharengeous are supplied by the pharyngeal plexus mainly from the pharyngeal branch of the vagus

- With eustachian tube dysfunction, the ventilation in the middle ear will decrease, the pressure will thereby decrease as well through the resorption of air. Thus, it will have a relative negative pressure resulting a retracted tympanic membrane. the patient who gets that will feel aural fullness. When we go down in the plane, this will reverse and the ear will 'pop'.
- Nasal symptoms: General
 - We have to stress asking about the unilateral/bilateral causes. Bilateral → function problems such as inflammation. Unilateral might be mass (polyp), fracture, foreign body.
 - We have to ask the patient if it's continuous or intermittent. If continuous, this might mean it's an anatomical problem.
- Nasal symptoms: Sleep apnea, snoring, mouth breathing, etc.
 - sleep apnea cessation of breathing for at least 10 seconds
 - We can divide it according to
 - Obstructive
 - At the nasal cavity, nasopharynx, oral cavity,
 - oropharynx
 - Central
 - Respiratory center in the brainstem, especially in prolonged congested patients
 - Mixed
 - Snoring Stertor is snoring when awake
 - Partial obstruction. The level of obstruction will be <u>supralaryngeal</u>. if it was complete obstruction, we would get apnea and no air would come out.
 - A partial obstruction at larynx or trachea, the patient will get stridor
 - Rhinorrhea Nasal discharge
 - Colour, uni/bilateral, unilateral serous (CSF rhinorrhea and leak), character (serous → viral rhinosinusitis or allergy), purulent (bacterial), mucoid (allergy)
 - Sneezing probably due to any inflammatory condition
 - Lining epithelium for the mucosa → ciliated pseudostratified columnar
 epithelium. This mucous through ciliary movement is pushed into the oropharynx. The amount of mucous production daily is 500 1500 ml.
 - Sometimes the nerve endings in the pharynx (GERD reflux) will cause increased sensitivity to the nerve endings that the patient will get annoyed with even the normal production of mucous.
 - Headache
 - The patient will feel pain right where the sinuses are affected. sphenoid
 → parietal or occipital pain. facial → facial headache. second premolar

and first two molars' roots go into the floor of the maxillary sinus \rightarrow with a dental pathology, this will cause sinusitis.

- Epistaxis bleeding from the nose
 - Unilateral vs. bilateral
 - have to ask about the symptoms of anemia
 - bleeding from other orifices
 - drugs: anticoagulant, antiplatelets.
 - history of trauma
- Nasal deformity
 - Too big or small nose
- Change in smell sensation
 - Temporal lobe of the brain is responsible for smell sensation. The pathology might thus be central, like temporal lobe seizures, CVA, tumours, hemorrhages all in the area of the temporal lobe.
 - Olfactory nerve (I) might have a pathology.
 - hyposmia is the reduction in the ability to smell in the patient.
 - anosmia total loss of smell sensation in the patient.
 - dysosmia abnormal smell sensation

1) parosmia: smell an orange like a banana. Smell something like another

2) cacosmia: Smell something that is bad when there's a normal smell. "caca" smia (I died a little inside putting this in the notes). Chronic rhinosinusitis might result in cacosmia.

§Lectures

§Physical Examination

§Ear examination

oReview anatomy

§External auditory canal is around 1 inch. The outer one third is cartilaginous. The inner two thirds are bone. The outer one third has hair follicles; inner two thirds with no hair. The outer one third has seromenous (check) glands (ear wax) and the inner two thirds with no glands.

§The middle ear cavity has three ossicles malleus incus and stapes. A part of the malleus is stuck to the tympanic membrane and it is called the handle of the malleus. The smallest bone in the body is the stapes. The stapes is also the most complete ring. The largest and most lateral is the malleus. The stapes is stuck to the most complete ring. The largest and most lateral is the malleus. The stapes is stuck to the most complete ring.

§The Eustachian tube connects the middle ear to the nasopharynx.

dr. mohammed Barqawi 2018-09-28 18:35:16

Schorda tympani, a branch from the facial nerve, innervates the taste in the anti 2018-09-29 10:59:00 tongue.

STensor tympani muscle and stapedius muscle with innervation from trigeminal **meganalis** ريتك هترم بجب تملز رمات meganalis with innervation from trigeminal ويتك هترم بجب تملز رمات meganalis the roof of the middle ear.

Scochlea and vestibular apparatus for hearing and balance respectively. The cochlea is two and a half turns. The cochlear or auditory nerve comes out of the cochlea. The vestibular apparatus is divided into vestibule and semicircular canals. The vestibular has <u>urticle</u> and <u>saccule</u>. Out of these canals, we get the vestibular nerve which joins the cochlear. The vestibulocochlear nerve passes the CP angle and goes to the pons.

§The inner ear has two types of fluid: perilymph, which is high in sodium low in potassium like ECF. The endolymph is like ICF, which is high in potassium low in sodium.

• We have to clean our hands and wear the headlight with every single examination, especially for the OSCE. We have to ask the patient about which ear the patient has pathology. This will allow us to know the normal background anatomy of the patient. This will also allow me to start with the ear that has no pain and establish rapport with the patient.

Inspection: We look for ear deformities. The helix, anti-helix, tragus, anti-tragus, lobule and cocha.
 We have protruding or bat ears, which is a cosmetic deformity. We can correct that through otoplasty
 Smicrotia: small ear. Anotia: the pinna would not be present.

§Aural atresia: the external auditory meatus would be closed off.

§Sinus/pit: preauricular or postauricular sinus or pit The difference between sinus and fistula-

abnormal communication between two epithelial surfaces. The sinus - communication between an epithelial surface and a blind cavity.

§Accessory auricles(?) – any skin tag or cartilage that is "extra".

Scauliflower ear (also called Wrestler's Ear) – occurs after trauma followe d by auricular hematoma.

Cartilage is an avascular structure. It gets its perfusion from perichondrium. With trauma, there will be spacing between them, ischemia, and necrosis. Thus we have to do necrosion and evacuation of the thematoma.

•The patient will come with a swelling and we will feel it tense. We will enter with a needle aspiration, if blood, it's positive. To prevent recollection, we have to cover with a gauze and compress with a bandage to prevent further damage.

•The hematoma might become an abscess as well and create further problems.

§We look for signs of inflammation, such as redness, swelling, or discharge, ulceration, hypo or hyperpigmentation.

§Scars: post-auricular scar from surgery. End-aural scar will be present obliquely in the preauricular surface. With tympanic membrane perforation, we have to repair that through tympanoplasty or myringoplasty (myringo = tympanic membrane). We use fascia, periosteum, veins, etc. But we mostly use facia and/or cartilage (most popular two types of treatment).

•Tragal scar – evidence of using the tragus for previous repair.

○Palpation:

§We move the pinna and see if we have auricular tenderness, press on the tragus and see if we have tragal tenderness. This might be a sign of otitis externa.

§We also palpate the mastoid bone. If tendernesss, sign of mastoiditis.

§<u>Fistula Test</u> (perilympathic fistula): we press on the tragus, close the canal for 10 seconds, then sudden release. Positive test is if the patient had nystagmus, or the patient told you they felt dizzy afterwards.

Nystagmus: rapid, oscillatory, involuntary movement of the eye

•Percussion:

§Percuss the mastoid for mastoid tenderness.

Otoscope:

§We always have to choose the right ear piece for the right patient. It isn't universal for everyone. We use the biggest but most appropriate ear piece for each patient. An adult = big, pediatric = small. Adult with otitis media = small.

§Pneumatic otoscope: checks the mobility of the tympanic membrane as well as doing the otoscopy. When we press, the tympanic membrane should go medially.

§We always have to examine the patient with the right ear pathology with our right hand.

§We have to grab the otoscope like a pen.

§We should pull the pinna upwards, backward, outwards, to straighten the canal. This is for adults. §Pediatrics -> just backwards.

§Neonates -> backwards and inwards.

§Is the external auditory canal adequately patent or is it narrow? We have mention any signs of inflammation, discharge (with its own classifications as well), skin lesions, masses, foreign bodies, tumours, neoplasms.

§We look at the tympanic membrane, comment on its normal or abnormal structure.

•Normal: semi-transparent, grey-pearly colour, intact, normal position (not retracted nor bulging), presence of cone of light, presence of handle of malleus, mobile tympanic membrane through Valsalva maneuver

○Cone of light: anteroinferior quadrant.

OHandle of malleus: backwards and downwards

oValsalva: have the patient close their nose and mouth and try to "breathe"

• Tympanic membrane is made up of pars flaccida, e.g. attic upper small part with two layers, missing the fibrous layer), and pars tensa lower larger part). With Eustachian tube dysfunction, pars attica moves easier. When it retracts, it's called retraction pocket. Cholesteatoma occurs with the keratinization of pars attica when it gets retracted; presence of squamous epithelia in the middle ear (Google this and add to notes).

§Impacted wax – wax closes off the view of the meatus completely.

§Tympanic membrane perforation

•Site, size (if less than ¼ of tympanic is small sized, if ¼ - ½ medium, more than ½ large), wet/dry (depending on presence of secretions), marginal or central

§Myringotomy + hole in the tympanic membrane, we put a device called ventilation tool for ear effusions.

oTuning fork tests: At least 256 forks, even better is the 512

<u>§Rinne Test:</u> We grab the tuning fork with the stem. We hit the olecranon process or patella. We go in lateral to the ear by one inch, at the mastoid process. Air conduction louder -> positive (? Check). We have to do it at three positions behind the ear, at the pinna, then at the tragus.

<u>§Weber Test:</u> Any midline ear prominence then we ask which side is louder. Again, with the stem to the bone. If both are heard equally, centralized. If one side is more, then it is lateralized to [that side]. If the patient can't hear any side, it's called indifferent.

§These examinations are not called normal or abnormal, they're called positive or negative and centralized/lateralized. Don't use any other terminology.

oFree field hearing test: talk to the patient and see what the intensity of their hearing is.

oFacial nerve: Ask the patient to elevate their eyebrows, and have them look at the examiner's finger from up to down. Then close your eyes tightly and don't let me open them. Show me your teeth (look at angles of the mouth for drooping), whistle, and blow out your cheeks. Ask the patient to grimace for symmetry, then ask the patient for taste.

Nasopharynx examination: (check)

§Hearing loss:

oConductive hearing loss: pathology in the external/middle ear.

oSensory hearing loss: pathology inner ear, nerve, brainstem.

§Nose Examination:

oInspection:

oAnatomy

§ Masolacrimal duot connects the inferior meatus to nasolacrimal sac. It is the only structure that connects to the inferior meatus

§Maxillary sinus, frontal sinus and anterior ethmoidal air cells connect to the middle meatus.

- ³ §Superior meatus posterior ethmoids
- ↓ §
 §
 phenoethmoidal recess
 sphenoid sinus

Sosteomeatal complex (OMC) s the part of the middle meatus that connects the sinuses. This is important.

Sciliated pseudostratified columnar is the lining epithelium.

§Base of the tongue is the posterior 1/3 of the tongue. Floor of the mouth is inferior to the tongue. §The distance is 7-8 cm between the anterior aspect of the nose to the posterior.

3

§Front, lateral, and behind the patient for any nasal deformities. Comment if the patient is a mouthbreather. Comment if the patient has epiphora (hyperlacrimation). Comment if the patient has allergic salute (transverse skin crease superior to the nose holes). Comment if the patient has allergic shiners (black spots around the eye). Comment on scars (lateral rhinotomy scars for example). Lift the tip of the nose and look at the transverse columellar scar and anterior dislocation of the nasal septum. oPalpation:

\$palpate the nose and look for localized tenderness or crepitus, emphysema, any fracture lines, etc. \$palpate the sinuses

oPercussion: tenderness on the sinuses.

oAnterior rhinoscopy:

§Look at the nose from anteriorly using a nasal speculum. Here, we use the Thudichum's speculum. We examine both sites using our left hand. We go in the nose closed, we go out of the nose open.
§Five things:

•Nasal septum: is it straight or deviated? If deviated, to which side? Which is wider cavity as well? Intact or perforated?

·Turbinates: mesotrophic (normal size), hypertrophic or atrophic?

	·Mucosa: Normally pink in colour. Pale mucosa -> allergic rhinosinusitis.Red -> er	ythematous
	inflammatory mucosa.	
	·Masses: Polyps, neoplasm, foreign body, clot, rhinolith. We do suction to differe	ntiate the po_lyp_from
S	mucous. The polyp has vellow-greyish coloup. The polye is shiny the turbinate is	a't Jbe polya is soft Dr.
	the touch, turbinate is hard. The polyp has no nerve endings -> insensate The polyp has no nerve endings -> in	dr. mohammed Barqawi
	turbinate doesn't. The polyp most common y isn't bloody, if so, we have to deter	
	neoplasm.	turbinate
	·Discharge: Colour, where? Character, amount, etc.	
	○Nasal patency test:	
	§Metallic testing with vapourization upon breathing. If on the right side there's n	nore condensation, this
	means the right is more open.	
	§We can also bring little cotton pieces that move upon exhaling out.	
	○Posterior rhinoscopy:	
	§Looking at the nasopharynx through a mirror. We put a long mirror through the	oral cavity. We have to
	do warming of the mirror and depress the tongue.	
_	 Nasal endoscopy: There's rigid and flexible nasoscopy. 	
5	Lamina papyracea divides the ethmoid and the orbit. It's oblique to the orbit.	
K	§Throat Exam:	dr. mohammed Barqawi 2018-09-29 14:05:41
•	oLips	
	§Cleft lip, ulcers, masses, lesions	D-: اکیرباب
	oTeeth	
	§Cavitations, dental carries, teeth cap, filling, braces, dentures for upper and low	er teeth
	oGingiva	
	§Masses, ulcers, lesions	
	oBuccal mucosa	
	§Parotid duct (Stinson) opposite to the upper second molar tooth.	
	oTongue	
	§Macroglossia, fasciculations, motility of the tongue, geographic, glossitis	
	○Floor of mouth	
	§Submandibular ducts (Warthon's duct – lateral to the lingual frenulum), frenulu	m
	oPalate	
	§Cleft palate, ulcers, masses, lesions	
	oUvula	
	§Bifid or not. 30% of bifid uvula have submucous cleft palate -> Eustachian tube	dysfunction.
	oTonsils	
	§Anterior pillar and posterior (palapharyngeal and palatoglossal pillars). Ulcers, n	nasses, lesions. The
	tonsil if they are large or small. Presence of crypts and they are preserved -> no t	onsillitis. Pus, follicles,
	lesions.	Ş
	oPosterior pharyngeal wall	
	§Ulcers, masses, lesions, postnasal drip or discharge.	

oLarynx

§Indirect laryngoscopy

Warm the mirror and go through the oral cavity. Pull the tongue forward and point the mirror down. Ask the patient to make a sound to see the vibration of the vocal cords. Vocal cords with phonation go through adduction. At inspiration, they go through abduction. With adduction, there is turbulent air flow. Articulation of speech is through the tongue, buccal, mouth, lips, etc.

Hyponasal speech: when a person has a flu or sneezing. This is because the nose or the sinuses is less than usual, if more than usual -> hypernasal speech. This is similar in the cleft palate patients.

•False vocal cords are at a higher level than true vocal cords.

§Neck exam

OScars, masses, striae, lesions, hyperpigmentation

 \circ Palpation

§Mass, I have to test it. I also have to test thyroid and lymph node groups.

oPercussion

§Mass

oAuscultation

§Mass or goiter

oConsistency, tenderness, fixed or mobile, attached to underlying structures, pulsations,

transilluminations, fluctuance.

oLymph nodes

§Submental -> submandibular -> upper anterocervical, middle anterocervical, lower anterocervical -> posterior border of cervicals -> pre-auricular -> post-auricular -> suboccipital

§Cranial nerve examination

oAdd this

ال سماية 14 بالداري م مش موجودين y Throat and neek symptoms (m) cavity + phonyink + loryrix) to enrs) 1) -> Pain (in mouth, sore throat, radiated throat discomfort the localized auses , inflormona tion (allergic rhibitis) gllergy or diffuse pedy or trauma Foriegn (sysimic) SERD (laringeprongingent reflux) + Smoking and Alcohol ingestion (chronic irrelation) (EBU, CHU -> Janke Garded DNA vins) Aplafections mononucledsis Tumors (lymphona, Multiple myeloma) > Antithyroid medications Head and neck radiation therapies

2) Dysphergia Isto solids as matomical cause Oto locungeligu > lights -) neuro muscular cause 3) Odynophug ia 4) Dysprea 5) BStridor Schoring or sterbar -> supra languaged obstruction > Stridor > largragent ar tracheal obstruction - Stridor - inspiratory LEXPERATION 4 Biphase Cargh G) 2) Aspiration 8) Hemoptysis 4) dyphonic Harspess (abrormal voice) (Apponia) low pitched voiced 2000 (Julicos) El su l Sypromiail (ma) or 19 GERD Symptons 11) Neek lumps 2) Associated symptoms related to the underlying pathology sheehed

5	Adeno tonsillar diseases
×	The most common symptom is =) Sore threat (any disconfort to the threat)
	the set of
->	Causes of Sore throat
	DSmoking 2) Alcohol 3) Chronic Phanyngibis 4) Chronic tonsillitis
	5) Chenic non-iffective largneritis 6) Post rosal drip from sinusitis 7) GERD
	3) Head and neek surgerics (by domage to the salivary glands)
	9) Drugs (inhalers, methimázak, mitranidazale, chemotheraputic agents)
_	10) Infections (condidiasis, Diphturia, Infectious mononucleosis)
0	Diphtheria -> Gram positive bacillus
	> pseudomembrane or premibrane on the tonsils and phorying and may extend daunumoids
	and may bleed easily
	-> 2 ploblems with Diphtheria
	D Hay result in airway compromise 2 production of cardiotaxins and neurotaxins
-	> Mx > supp for culture and sensitivity
	- we give empirically penicillers and macrolides (such as azithermycin)
	we also should give the patient antitoxin serum to counteract the effects of bails
-	
6	Infectious Monopucleosis _ EBV (Glandular fever) (Kissing disease)
	-> clossic triad of Ofever @ pharyngilis @ lymphedenopethy
	> WBC are normal to mederally elevated -> lymphocytes are increased.
	"> Dingnostric test is Mono spot best or four - Bunnel test.
	-> Hx is supportive therapy, and hydration, antipyretics, analgesics.
×	Waldeyer's ring -> An interrupted circle of protective lymphoid tissue at the
	upper ends of the respiratory and alimentary bracts.
	phagegeol upper milline in pusophacyph
	Lonsit (Adunoid)
	Tubal tonsil Tubal tonsil and itony tube
	Palatine tonsil a palatine tonsil & either side
	Linguer Munder mucosa of the posterior third

_		Adenoids Tonsills
	-	pesterosuperiorly in the upper midline in the tonsillar forsign but the ant.
		of Nasopharynx and post. pillars on either side dagha
_		pseudostrabilied cobmat epithelium
_	->	They are a collection of one two they are take
		have Furrows (wrighting on the surface) 2-4 have crypts (8-16)
	-	unencapsulated photos encapsulated
		affront and effront lymphotics only effront lymphotics
	×	Adenoidal disease as is a desease of palintrics, they grew until 6-7 years and the
		frey get smaller until 12-15 years
	⇒	Symptoms & D Nasal abarretion & mouth preathing there is no contact the jours
	(3 Snorthy and sleep aprea 3 Recurrent infeetings in pharyon and chest
		Bilderal phinorrhea B Hyponasol speech
		BEustochian type obstruction leading to 8- (3 Otitis media with effusion
		Orfaule dibis media 3 Chronic suppurative Ofilits media
	-	Dianosis -> Phinoscopy ->>> (and -philade) VA2 - prostrugal no
		Diagnosis > Brinoscopy Vateral neck self tissue X-ray (constricting of airway at pasaphaynelle
	- H	Diagnosis > Brinoscopy Lateral neck self trissue X-ray (constricting of airway at pasaphrayment
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		Diagnossis ~ Brinoscopy Statend neck self tissue X-ray (constricting of ainway at posophaynelle Indications of the Adenoidectomy Inflection -> Purulent Adenoidectomy Inflection -> Purulent Adenoidectomy Inflection -> Purulent Adenoidectomy - Chronic ofitis media with effusion or with performation - Chronic ofitis media with effusion or with performation - Chronic recurrent ofitis media - oto mean a chronic tube storthean Adenoid hyperbephy associated with chronic Sinusitis Saspected neoplesia Obstruction -> Adenoid hypertrephy associated with - excessive sporing and sleep apres - chronic mouth breathing - Gailline to thrive - Car palmorole "- Dysphagio -> speech aproximalities
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	an angluation
	- Ainoid Pocies, long face, crousdee, ncisors, nouth breathing, showing, chineraley
	astrocal drip.
	and under of palate -> cleft palate, Bifid avula. CNS or neuromuscular disease.
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	of Plude and Find this condition is called (Rhinolalia Apperta.)
	or plaus and the start and the start
	> The surgery is called Adensidectamy using the mouth gag and curette.
	C which a share
	Complications of stragging
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	y regrath at residual workers sister of sine allow discon the neck
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	Tonsils
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	Acute tarsillitis (Acute tansillophnyngitis)
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	Acule taxillitis (Acule tansillaphnyngitis) > most common cause is viral infection but from the backenic is Group A belia hundytic strappocaccus (strep pyngens), this organism is associated with a risk of rheumatic fever
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Indications of Tonsillectomy 1) Recurrent infections (more than 7 attacks in 2 year, more than 5 attacks For 2 constantive years , more than 3 attacks for 3 constantive years 2) Obstractive symptoms from large tonsills (shoring, sleep opnen, mouth breathing, dyplaged 3) History of complicated tensillitis (quinsy, Rebrile Convulsions, Rheumotic Ferry GN) 4) Asymmetric Lonsills 5) suspicion of malignoncy Dunressponsive to madical thempy complications of Tansilkatomy Dodynophogia 2)Obitis media 3) post-tonsillectomy infection 4) Bleeding 5) Pulmonary condications. Sleep aprea -> cessition of breathing for more than 10 sec during skeep Obstructive respiratory muscles are moviney against obstruction 2 types ain't 2 (chest is silent) in pediatoics the MC ause is Adonatonsillar hyportraphy in Adults there are variety of causes U Septium devicition 2) Hypotrophied turbinates 3) Nasal polyps 9) long unala 5) Redundant soft palole Q Obesity >MX -> CPAP (Continues Positive Aimong Pressure) prevents the collapse of the airway > The problem is lack of patient's comprance. 4 units down friedothe appendie

He	varing Assesment lest-s
there	an subjective teets and objective tests, we use the objective tests
in com	special cases Malingurine, mentral retardation, uncounciaisness
	ensus a danky selection as
GAE	(Obo Acoustic Emession) - we perform this test on new borns to test the
cochl	ea response to certain sounds by producing sounds, if it produces sounds detictable
by H	e computer it's positive. If it was negative we repeat the test after 2 weeks
if Sti	Il regative we do the ABR test. (Auditory Brain Stem Response) this test will tell
us if	- Here is hearing compromisation and if yes, it's amount.
in the	and the AL and the first the first she share the state the) are recear for with as for the set
Bin	ne Test _ we use a 512 Hz Tunning fork rue hit it with our elbow or knue, we
place	, it of the patient's masterial process and when he stops hearing we put it beside
the m	reafers if he still hears, AC> BC-RD your man the
Bi	me the AC>BC > Normal, SNHL
- Ri	nre-ve_BCZACCHL
>Fal	Se -ve -, severe unilderal SNHL
-	
We	per Test we use a 512 Hz Tunning took, we hit it with any beau of Knee, we place
it or	the peticit forehead and we ask in which par the same is said.
> N	ormally, heard Equally in both wars (centreatized)
-> 6	teratized to the worse ear in SNH
-> La	teralized to the better car in sime
37	manetry a objective test for middle ear function
UIn	Sirect measure for middle ear preasure 2) Test for mobility of TM and ossicles
usefu	I in a 1) CHL (but it doesn't defferentiate blue it and SNHL)
z)Un	cooperative patients 3) No need for sound proof coom.
·Tua	e A pormal • Type Ad, Ossiantar discontinuity or dislocation, Hypernobile TM
• Typ	e As , Myringlosclerosis on Obssclerosis Low volume High volume
·Ty	e B-Aat , DExternal ear Hockage (infection, impacted wax) 27M perforation
	3) Aural fullness 4) Hiddle ear effusion
•Тур	e C-negative pressure) Eastachian tube dystunction 2) TM retraction

4	Pure Tone Auc	liometry subjective	test used to identify	hearing threshold be
	delevatine ite	deame true and	configuration of a hearing	y loss
	differentiates	My CHI and SNI	here and a second	lash anno lasu
	> Alleads a com	and in contrast >-	Byears.	and the second s
	- Nacoli - Co	and some room.	at say and say and	(and should a
		and press coon	shows would be done	more to carbon to
	the laubage and	ero debat sounds le	tw 20 Hz - 20K Hz , k	ut here we test of 1
	Sanda blue 12	5 H7 - 8K H2	BR 100 (Autom Ban	A which an adding
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•			AHMAN . SMHL	DE C DA C M
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\bigcirc	Conductive Hearing Loss	2 SNHL
1.	pegative Rinne test (BC>AC)	positive Rinnetest AC>BC
2-)	Weber test lateralized to woose (affected) car	weber test loteralized to better (normal) ear.
د ق	Normal Absolute Bone conduction test	BC is reduced on Schwallach and ABC tests
Y->	Low Fraguencies affected more	High frequencies affected more
5.	PTA shows ABG	PTA with no ABG
63	good speech descrimination	Poor speech des criminetion
73	god hearing in presence & noise	Sifficulty hearing in presence of noise.
	a fill areas	y congenital causes
	Conglitite cardes	1- Congenital chalesteatama
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Ŋ	Far wax	1) Developmental and Herelitary: Alport, Usher, large Lestinular 9
2)	Obitis externa 1414 of 1414	2) Infections , Ctitis media, Viral syphilis
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1		and Smeller cochieal) + goiler and Hyper-thyroidism.
-		-> No cure -> Hearing aids.
	-	soughted and 5
1		reacher collins syndreme
		-> CHL (external auditory cancel atressia, abscence a dysplastic assicles or, deficient cochleal +
-		Monullemandipular pypoplasia + clett palate.
-		H Frederic al forgetiste al above
-		Alpoit syndrome -> Hearthy loss + glomenuloruphilitis.
-	(2	Noscharter Ad and to had a the AB to De
anti-		councilies its usered to appeal
1200 - 23	NONBID R	presenting its plantal movement
port-		Steads to CHIL) they have y interve the country resulting in MHL.
	-	Sit i Sit a dant
um		Agos granders
		i) study progressive on a transferriting entrol (color 1) of a
		but it some creas there will be achievent and callet here taking the
		a claring which we of increment the all a capital for the the
	5	poter appropriation (active phase).
-	Ŋ	DCT can (table cha con in cathe D front)
-		a) MRT 2) OT U) Dinne White Late F) T.
-		2) MID2 3) MA " KNIME + VIEBER LESES - J. Jympano Metry
-		
-	4	The syrgeny is called (stapedotomy or stape destormy)
-		
9	8	7
Í		

(4) Presbyc	usis -> Unexplained, slovely progressive, predominantly high frequency, symmetric
hearing	loss due to aging process.
)	
> Clinically	, MSF, SNHL, Tinnibus
Investig	atichs _ Hx, Rinne (+), Weber lateralized to better (hormal) ear, PTA
	> MRI to exclude acoustic neuroma
TX -> +	Hearing, aids, codileon implants, Rehabilitation Lip-reading or speech reading,
01	nd avoide noise exposure.
m PT	A 3 20-50 mild, 53-70 moderate, 70-90 server, >90 prolound.
->	
B abotox	ricity sleads to High Requency SNHL, tinnitus, vetigo
Dhugs a	Aminoglycosides, Loop Sinnetics, solicylates, BB, Extotoxic agents, Quinine, Anticonvylsonts.
2.090	and still and st
() Noise	indused hearing loss
LiTempor	ary Threshold shift -> Initial noise exposure, metabolic exhaustion of hair cells
Spermen	ant threshold shift proving repeated noise , metubolic and mechanical damage of hair cells
* Allowed	d croosure times -> 90 dB - 8h, 95 dB - 4h, 100 diz - 2h.
-	·
e + The m	ost common cause of unilateral suction SNHL is acute stoke accluding the anterior
inferio	r cerebellar artery that fearly the inkinal auditory artery.
	A district and have a transmit
() Acous	tic Neuroma (Vestibular schulandarmy) -> Lengt unilatera)
vestit	zular nerve attore celebero - fencine unificante y
excer	tin NF-2, where it every ce entering
N Illen	ing add
D Poli	A car basing aids -> behind the ear (BTE)
() Hern	s Receiver in conal
-	La Receiver in the Ear
6 llari	a site that fit in the par - In the ear
(2) Hear	a completely in conal
	Invisible in carel
an.	Inchand hearing aid
S Kone	, unition to meeting and
y cach	lear implant

	HI to the base of
Carabila	I subarrate, acrete , chomic
> Cong chi du	Inflaction I wind pactorial Runal
1	LP/one from the time and the analysis
Acquiree	, intractory non-intertive -> satisfully intractory
	spon-inflammatory - neoplastic, traumatic, other
Bach St.	adata a Another and a Car and a constant a analy
	primary - malignant c
	secondary d
se Jones	the porthilital country and a damage of adapting a strate of the
Harry T	index inversal and have been time have been list a prove of the
a la la la la	many west the days way is made of both and and the man of the
Andan	The env is desired into 3 main regions adding attending setting and particular
W The allow	al error is collected sound some and channe I them innovard.
1) the extern	al ear -> collects and when the contraction of the
1111	and side of the oral whom
2) The Middle	ear, conveys sands uibrations to the oral window
2) The Middle 3) The loner	ear -> conveys saveds viberations to the avail window ear -> houses the receptors for hearing and equilibrium.
2) The Middle 3) The Inner	ear , conveys sands unbrotions to the avail window ear , houses the receptors for hearing and equilibrium.
2) The Middle 3) The Inner * Anotomy	ear , conveys savds vibrations to the avail window ear , houses the receptors for hearing and equilibrium.
2) The Middle 3) The Inner * Anotomy () Auricle	ear , conveys savds vibrations to the avail window ear , houses the receptors for hearing and equilibrium. of the esternal ear & (piona) @ External auditory canal 3 Tympanic membrane
2) The Middle 3) The Inner & Anotomy () Auricle Ly Auricle	ear , conveys sands vibrations to the avail window ear , houses the receptors for hearing and equilibrium. of the estemal ear & (pinna) @ External auditory canal 3 Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to
2) The Middle 3) The Inner * Anatomy () Auricle Ly Auricle Une cranjur	ear , conveys sands vibrations to the avail window ear , houses the receptors for hearing and equilibrium. If the external ear & (pinna) @ External auditory canal @ Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to by skin, cartiloge, auricular muscles and extrinsic ligaments.
2) The Middle 3) The Inner Anotomy () Auricle Ly Auricle Line cronium it's devel	ear, conveys sands vibrations to the avail window ear, houses the receptors for hearing and equilibrium. of the esternal ear & (pinna) @ External auditory canal @Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to by skin, cartilage, auricular muscles and extrinsic ligaments
2) The Middle 3) The Inner * Anotomy () Auricle Ly Auricle Une cronium it's devel	ear , conveys savds vibrations to the avail window ear , houses the receptors for hearing and equilibrium. of the external ear & (piona) @ External auditory canal @Tympanic membrane (piona) @ External auditory canal @Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to by skin, cartilage, auricular muscles and extrinsic ligaments ped from six tubercles of the first branchosial arch. Fistulae and accessory sult from Pailone of fusion of these tubercles.
2) The Middle 3) The Inner Anatomy () Auricle Ly Auricle Une cranjun it's develu ouricles pe	ear , conveys savds vibrations to the avail window ear , houses the receptors for hearing and equilibrium. If the estemul ear & (pinna) @ External auditory canal @Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to by skin, cartilage, auricular muscles and extrinsic ligaments., ped from six tubercles of the first branchaial arch. Fistulae and accessory sult from Pailure of Pusion of these tubercles.
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2) The Middle 3) The Inner Anotomy () Auricle Ly Auricle Line cranjun it's devel ouricles pe 3) The externa 1, the Interna	ear , conveys savds vibrations to the avail window ear , houses the receptors for hearing and equilibrium. of the esternal ear & (piona) @ External auditory canal @Tympanic membrane (piona) @ External auditory canal @Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to by Skin, cartilage, auricular muscles and extrinsic ligaments, ped from six tubercles of the first branchaial arch. Fistulae and accessory sult from Pailure of Pusion of these tubercles. 1 auditory conal , length: 2.4 cm eral third of the engine is node of fibrocartilage and the medial two thirds
2) The Middle 3) The Inner * Anotomy () Auricle Ly Auricle Lhe cronium it's devel ouricles pe =) The externa Ly The lat	ear , conveys sands unbertions to the avail window ear , howses the receptors for hearing and equilibrium. If the external ear & (pinna) (2) External auditory canal (3) Tympanic membrane (pinna) (2) External auditory canal (3) Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to by skin, cartilage, auricular muscles and extrinsic ligaments, ped from six tubercles of the first branchaial arch. Fistulae and accessory sult from failure of fusion of these tubercles. (auditory comal) length: 2.4 cm and third of the first prode of fibrocartilage and the medial two thirds
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2) The Middle 3) The Inner * Anotomy () Auricle Ly	ear , conveys sands vibrations to the avail wholen ear , houses the receptors for hearing and equilibrium. of the external ear & (piona) @ External auditory canal @Tympanic membrane (piona) @ External auditory canal @Tympanic membrane s are bilderally symmetric elastic contiloginous frames they are anchered to by statified of the first branchaial arch. Fistulae and accessory sult from failure of fusion of these tubercles. I auditory conal ~ length : 2.4 cm ind third of the first practarilage and the medial two thirds ind by stratified squamous epithelium, that has the capacity to migrate ind by stratified squamous epithelium, that has the capacity to migrate having the conal to pemain unobstructed by debris.
2) The Middle 3) The Inner Anotomy () Auricle Ly Auricle Ly Auricle Lhe cronium it's devel ouvricles pe 3) The externa Ly The lat of bore. 1 devally a	ear , conveys sands vibretions to the avail whether ear , houses the receptors for hearing and equilibrium. et the estemal ear & (piona) (2) External auditory canal (3) Tympanic membrane (piona) (1) External (1
2) The Middle 3) The Inner * Anotomy (1) Auricle Ly Auricle Ly Auricle Lhe cronium it's devel oussicles pe 3) The externa Ly The lat of hore 3) The set 1 alerally a 5 The s	ear , conveys sands underticens to the avail whichow ear , howses the receptors for hearing and equilibrium. et the estemal ear & (piona) (2) External auditory canal (3) Tympanic membrane (piona) (2) External auditory canal (3) Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to hy solvin, cartilage, auricular muscles and extrinsic ligaments., ped from six tubercles of the first branchaial arch. Fistulae and accessory sult from failure of flusion of these tubercles. I auditory conal -> length : 2.4 cm ired by stratified squemous epithelium, that has the capacity to migrate lawing the conal to remain unobstructed by debris. ubcutanous layer of the fibre cartiloginaus portion contains; hairfullicles, lands, corruminals alarts, while the assess portion doesn't have subautorus
2) The Middle 3) The Inner 4 Anotomy () Auricle Ly The Internation Ly The	ear , conveys sands wherefins to the and where ear → howses the receptors for hearing and equilibrium. of the esternal ear & (piona) ② External auditory canal ③Tympanic membrane (piona) ② External auditory canal ③Tympanic membrane s are bilderally symmetric elastic cartiloginaus frames, they are anchored to by ~ Skin, cartilage, auricular muscles and extrinsic ligaments, ped from six tubercles of the first branchaial arch. Fistulae and accessory sult from failure of fusion of these tubercles. I auditory cenal ~ length: 2.4 cm and third of the area is made of fibrocartilage and the medial two thirds ired by stratified squamous epithelium, that has the capacity to migrate lawing the conal to remain unobstructed by debris. ubcutanous layer of the fibrocartilagineus pertion contains; heirfollicles, glands, cercuminous glands, while the osseaus portion doesn't have subautonous
2) The Middle 3) The Inner Anotomy () Auricle Ly Auricle Line cranium it's devel ouricles pe 3) The externa Ly The lat of bore 3) The second 10 learning a 3 The s 5 cbaceau etements	ear, conveys sands utbactions to the and whole ear , conveys sands utbactions to the and whole ear , howses the receptors for hearing and equilibrium. I the external ear & (piono) @ External auditory canal @Tympunic membrane (piono) @ External auditory canal @Tympunic membrane s are bilderally symmetric elastic cartiloginews frames, they are anchored to by sskin, cartilage, auricular muscles and extensic ligaments ped from six tubercles of the first branchaial arch. Fistulae and accessory sult from Pailure of Pusion of these tubercles. I auditory conal - length : 2.4 cm in auditory conal - length : 2.4 cm is note of fibrocartilage and the medial two thirds in the stratified squamous epithelium, that has the capacity to migrate is note of fibrocartilage and the medial two thirds in the conal to remain unobstructed by debris. ubcutaneus layer of the fibrocartilogineus pertien contains; hairfollicles,
2) The Middle 3) The Inner * Anotomy () Auricle Ly Auricle Ly Auricle Ly Auricle Ly Auricle Ly Auricle () Auricles () Auricles	ear, conveys sands vibretions to the anal withdow ear, conveys sands vibretions to the anal withdow ear, houses the receptors for hearing and equilibrium. el the external ear & (piono) @ External awitons canal @Tympunic membrane (piono) @ External awitons canal @Tympunic membrane (piono) @ External awitons canal @Tympunic membrane (are bilderally symmetric elastic cartiloginaus frames, they are anchored to by skin, cartilage, auricular muscles and extrinsic ligaments, pred from six tubercles of the first branchial arch. Fistulae and accessory sult from failure of fusion of these tubercles. I auditory conal - length: 2.4 cm I auditory conal - length: 2.4 cm ired by stratified squamous epithelium, that has the capacity to migrate illuring the conal to remain unobstructed by debris. ubcutaneus layer of the fibre artileginaus pertion contains; fidicfillicles,

18	2 21 - 2 skin Libraus tissue, murosa
	the Tympanic membrane - Composed of 3 layers: south
×	choractaristics of TM 0-
	One as he gray in color 3 spiny 3 somi-translucent of no charging
14994	Elemente de consistence Baresence of cone shaped light reflection
1987	Strooth in construction and who are clearly visible. Shot performed
jenter	(2) handle of malleus and one
1000 ⁻¹	the la Dilly me share to prove a motivated and
1	Congenital anomalics of the car (BStahl's ear @Cryptotia
janno	OHicotia & Anobia & Lop ear & up the Accessory auricle
1079	Bprominunt (bot) ears (& Congenital atresia (maching)
115-5	is a plained whether whether make
1627-1	Bor the description of Microtia Por example > This as a clinical proceeding of a new
	ear, the auricle is deformed and small indications a condition called provera tout
	e minio next the other ear, the inside of both ears, and the rest of the body
	Liking for any other syndromatic problem.
	looking to wig and go and have been a start barrete at
	P 12 baids & Augiculus homations this is a clinical photograph of the left
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	tor the description of non-turning restrictions of the colleges is edematicus. Pluckunt
1999 (1997	por showing a swelling and pruising of the BRIN, the lore can is working on the
1748	Sugestive of auricular hematoma.
1) anton	adamulation
umat - 4	+ Auricular Hematoma -> collection of blood in the subperichandrial space
0.000	usually secondary to blunt trauma to ontenior auricle
share -	Clinically > 1)An edematous ; Pluctuant, and ecohymotic pinna
warmer -	2)1055 of the normal Cartila vinare landmicks
instant - a	Hx procession
	Agent die bestellen
	(Devolution in aspiration)
0xmx=	[spras: easily performed quick, less invation, lesser chance of interfrom
12 mp	L'Cons: locomplete evocuation and higher chance of recumence.
12/11/w	BEaccustion by surgical incision irrigation and salintage,
ilaina	complications, cartilage necrosis predisorsing it to infully a logit
shapur	permishent distingement Know is theeting and kurther injury
ann-	and be represent noticing as could lawer ear,
and the second s	The subcidences layed it the Encretablyces portion managed in the encountry
changer	and the and a closely and the state state and and a closely and a closel
Mong	
Men	That all at abound the second between the time of the time of
	The particular by the manager participation box anterparticipation has
	Starton (account) - accounts count and a low approvability and a provingers
11	the contraction of all of which carry and

Symptoms d = - = : 1) Decreased hearing 2) Dizziness 3) Fullness sensation	
Arguiness Sensoltion	
URinging in the par 5) For anin () to the down	
	-
D For Suringing Organium	
- let the patient use solice brock and done a sale of the half in the analy	
this is a ceruminality adent.	
areare the truels and light	
the solution can be sodiling torotherate , normal soline , tan inter and the Tama shall be	
blue 37°C - 38°C and the plectrically driven locater num a charlet he directed to the of P. P.	.1
the second of the rest print should be directed to the rest of a	ana)
Complications of (1) Obitis externa (2) pain local brayma (3) Caugh (9) TH performation.	10
Is a Ofrequent previous episodes of ofilis externa	
@) A known or suspected per Poration	
3 Difficult car (norraw and for tarty cus external meaturs)	,15
Builden and an annual an annual an annual an annual an	
B) Instrumental -> Microsuction	6
> Woxhooks	
-> Endoscope	
La Microscope.	
	1
Ear pain sotogenic	-
non-Obegenic	
Andreas and a start of Annalisment and and the start of the	-
Obitis externa _ pain is exagerated when moving the pinna	-
and treated topically creams or drops, also we sharld	
avoid water Cantack.	-
Malianant dula estado The shell and a	
inguint ones of the infection goes to hore	
	-
	-
	Der Springing procedure → let the patient use sodium bicarbanche eer drops a week a two before the procedure this is a ceruminolybic agent. → prove the backs and use a hered light → the solution can be Sodium bicarbanche, normal solice, Tapunter and the Tamp Should be the solution can be Sodium bicarbanche, normal solice, Tapunter and the Tamp Should be the solutions and the Sodium bicarbanche, normal solice, Tapunter and the Tamp Should be the solutions and the sodium bicarbanche, normal solice, Tapunter and the Tamp Should be the solutions a Ochitis externa (2) pain local brauma (3) Cough (3) The performation. The of Prequest previous episates of officie externa (2) A known or suspected for the trauma (3) Cough (3) The performation. (3) Difficult env (normal ord/or tortulaus external mentus) 3) Difficult env (normal ord/or tortulaus external mentus) 3) Instrumental → Microscution → Warknows → Endescape. Ear pain → othegenic (3) Instrumental → pain is ensagerated when menuing the pinna. and tracted topically creams or drops , also use shared avoid water content. Malignant attis externa → The infection gues to hore.

1	Obitis Externa
Kis	Lybective _ bacterial, viral, fungal
	prop-infective allergy, promases, sarcoidosis
	the set are a laborated and the part is and adjuster (adverte a bo) my more the with
	, the influmnation of the Stim lining the external auditory meatures
	15 a contrase mintana que se
	uste wit the FLM is usually starile or contains stapplocarcal abus commensals
	In the acute phase of otitis externa there is dilation of the dermal blood vessels with
-	is conned permeability that lead to those signs: reelness, hotness, edema, tenderness and loss of hardin
	abilities the curden water of the line of the line of the
	Badisming Babos for ditis externa
3	many a tarta s par canal Burderlying skinpathology: exzyma, psoriases
()	all's my with objects (1) Introducting maker into the car and Swimming
0	pained the we applied emigroments.
9	(wing in each to a started) allocation they through the located to the
r	Baterial diffis externe ausolive agents.
-	Diffuse tuge, Pseudomongs geruginosa, S. aureus
7	Funculosis S. aureus days along and a contraction of the mureus
2	Halianant OE Packetiginosa
	Erusipelos - Strep purgenes =
_	J Contract and
*	Symptoms & Invitation @ Discharge @fain(Tubile maring bejow) & Dearness
*	signs & @Mental tenderness on moving the pinna (DEAC constrained, evening, overman overman or only opping
* (Dignosis & BHA OFE 3 Marbiday (culture) & Had. alay
x 7	41 Tremoval of debris form the EAC (Sculpulous auro) toiler)
-	3 pressing leg. ear wick) southed with the appropriate topical medication (neonytine)
	3-Analgesia
	@ Prevention of necurrence Accidence of Contributing Factors.
	- apps a substantial and grapping and a for that are appended to the there is a second and the second and
	destroy low service lines to an
	× humpered a state from the for the there as the the
	Linder at comile name
	down of all long south regions with UT C. M. X.

(
- #	Fruncubsis, infection of hoir follicles in the Jakeral third of EAC.
	by Stoph aurous.
ser-	
* * *	Symptoms: Osewine prin (at of proportion) resembles but it renal care revergerated by moving the pina
instance-	Bibischurge BDeethess Bifluction abscess in advanced stage
	Mx - D prention of ear wick souched with (glycenin and ichthammol)
1750	3 Flucloxacillin parenterally followed by oral need cation
	3 Analgesia
cherry	(4) Prevention of necurrence: control diabetes, control the impunition provident
warne-	many property and the three areas reduces between endering out that d'fance
#	Oto mycosis - the causative opent is [Aspertigillus] than [Candida]
alerta - 2	The fungal infections are more common in improver compromised portients: LAY, strad intake
parta	elderly, very young.
	Syndroms _ (DItching @ Bain & Discharge @Dentress
and the second	Signs -> O Tenderness & Pinna enythematicus with Fungal depris Bothycelia on Otoscopy.
and the second s	4x -> Openal of debis and debridement Bythickingals (Kotocopuzal, Hragonazale)
- 0	allotted other externa susative agents
- -	Viral dibis externa [Herpes zoster dicus]
ward -	Manifests as Berere otalgia @ cutandus vesicular eruption on pinno and EAG
(b	when associated with Facial paralysis, it is called -> Rothsay Hunt Synchrome
	porthephysiology -> Reactivation of the viras from the contraction date ganglion.
6	Associated with - virtige, deafress, tinnitus
	- apploper 20 mileton Directing Africh Antenana Hagen) A Brackers
#	Malignont otitis externa (CMO: P.aerugiresa)
	Bisk factors: DM, immocompromised
and a	Obitis externa which progresses to esteernylitis anitially of the tympanic plate which
Water-	tren may spread to involve the skull base and petrous part of the temporal pore.
	Symptoms -> Oconstant deep dalgic Cochronic otorrhea 3 meningitis Obrain abscess
Chapter	B Signoid Ginus Unrombers
	Signs - O lotomation and granylation (2) furlent secretions (3) Occluded Conal
17-10-1	@ cranial norve involvement
ann x	Diagnosis _ O Granulation fissue deep in the EAC
amon_	3 Involvement of Cranial nerves
Wassan	3 1 ESR Q CT
	Ta -> IV Abx, analgesia, Local cana (debridement.
IU	

6	Que en el la
(Jeie)	Knihosinusitis
×f	unctions of the nose :- 1) Respiration 2) Olfaction 3) acception of secretions 1) Filtration, Humidification 3 warming dair
→ A	notony and Histology of rose
-	supper one third is difactory area, lower two thirds is respiratory area
	All the pasal cavity is lied by mucas membrane (pseudostpatefied ciliated colamnar eps.) exept
for	the restribule which line by hairy this called vibrisce.
× P	ara nasal Sinuses & Frontal Sinuses, Ethmoid Sinuses, Sphenoid Sinus, Maxillary Sinuses
L Fu	rctions & () Lightening the weight of ficial skeleton & skull.
િ	Moisturizing & humidifying ambient air
3	Resonating Chambers for the wice.
	a lave a history a construction of anticology and an and an internet
ly The → Suji	y are continues carities with the same nucousal lining. options & O Nosal obs. and mouth breathing @Rhinorrhee @smeezing @Nusal i behing
(Je	Proving and sleep appear @ Olfactory problems @ Headache, Facial pairs & dental pair
®p.	batmasal drip @ Nazal defarmity @ Hyponosal speech.
y non	allergic non infectious chinitis
ŪV.	some bor rhinesinusities _sensitenmental, arbumeirritents, dialory factors, - (neurogenic + harmonal)
Tx-	-> Autihistamines (#2 blockers) > Antichalinergics
(2) [shinosinusitis medicamentosa , abue of topical vasoconstrictive hasal prous.
4 110	Principle (and previous)
-F HIL	gre Bringsing to see 1 concilization to the define a days of the 1) and
Hype	(Sans) over factor within to long a straig said (21) alore biden by
pintos autos	King backetings and hadre . The prophile and this argue is called tale to a
00.00	What we artimes provide your your start and a provide is called the prove
- hasil	turbindes and alle in cohur
> In cl	hildren > Alleroic chipers (the K circles in he the Buse)
	L Nasal salute (constant rubbility of tip of nose)
15	11-
	J.

	MA OF anonge to a controls
	CAvoidance of and environmental combination of conticosteroids & orti-histomines
	D. pharmaco there py -> varging contents
	3 Immuno trapy
#	Acute Rhinosinus Itis (pacenus)
2	usually storts as a viral intection there pe
	mucouso edema, mucous stasis as eactorion ou
+	Most common causative agents &
	O Strep. preumonial @ H. influence type B Oren
1	a super state the contract of the set of the set
Ħ	Chronic Rhirosinusitis (bacteria) -> with NP or Worner
	and the second s
#	Fungal Philositusitis
G	Invasive fungal -, complitation of immunocompromized partionts
14.	- Theore are Rungal depris
	SR3K of Unrambosis
le.	Ly MC -> Aspergillus
-	Tx Deridement (2)#9gressive antifungul Heropy (3) present recurrence
a	Einad bell a non imastry funded mass a number of
B	Alleraiz Brad chiredinusitis
G	Mog. Call De La Call
*	Diagnossing infective Rhinosinusitis
	Olicion & PE - soperin Rhineseven and Pleville (other) read and according
14.1	Stealed CTUC NPT
	The held classice will be a being the second of the
	Sinc best - visice) excellent Visualization of mucosal thickening
	Clip Hund Kavels, bony structures
	abadapatha
	when survey to a section to the advance of the the and
	the section of the section of the section of the
	harriest reaching a second and a second the reaction of the second and
a.	anterines approved glanging . The many and a second s
	care that had been also approximate a second second
	picture and ally include
	and the second (deck carcies on an the alless)
	and the state of the state of the state of the

 Medical TX. (a) Abs. So 10-14 days (b) Abs. So 10-14 days (c) Abs. Abs. Abs. Abs. Abs. Abs. Abs. Abs.) Vira) Rhinosinusikis @ TMJ pain @ dental pain @ headach migrane Brinus neapl
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 (Abs. Ser 10-14 days. Silf mild bisene with no recent Abe use Americallin / clavilunate. Silf mild bisene with no recent Abe use Americallin / clavilunate. Silf mild bisene with no recent Abe use Americallin / clavilunate. Silf mild bisene with no recent Abe use Americallin / clavilunate. (3) Nasd sprays and irregalion - Nasd steril sprays. It following clavare. S. Nasd saline sprays where the mucase mask and kelliste noticellary clavare. S. Nasd saline irrigation. (6) Aber sprays and decorganizations. (7) Aber sprays and decorganizations. (8) Section clavare parsisted inspite of aggressive modical TX. (9) Alteragy of the adversarial adversary of the adve	*	Medical TX
Sile mild disease with no recent Abe use Americilia / clavilurate Sile moldule	6	Abx -> for 10-14 days
 J. J. J	L	of mild disease with no recent Abx use Amoxicillin / clavilunate
 Nasd sprays on 5 incigation is Nasal stored sprays is tinflumential it is 2 & polype Nasd soline spays item the mucasa mail and beilitik outoching classence Nasd seline incigation Systemic staroids and decorgentialistic inspite of eggressive motion TX Surgery if diverse parsisted inspite of eggressive motion TX Complications of Phirosianitis Orbital complications is hiddenia, Orbital allulitis, Ostital Abscess Duringitis Foldural abscess Converses since throm bosis Social polypes is for cystic Bibassis Anasal polypes is for cystic Bibassis 	L	il makingle
 (3) Nasd sprays on 5 incigation	->	
L. Masal saline sprays sheep the mucase mast and Beilikke nuccoilary cleatories S. Mosal saline intigation B. Systemic staroids and decorgentiants Alteray the Surgery of Polications persisted inspite of aggressive matrical TX Surgery of Polications of Phinosiansitis O Orbital complications of Phinosiansitis B. Anningthis B. Epidural abscess B. Maningthis B. Findural abscess B. Converneus sinus thrombosis B. Polit pully, Euroop S. Masal polyps Nasal polyps Nas	2	Nasd spraus and irrivation - Nasal steroid sprays tinflummation it size of polyps
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 Systemic sterositis and decorganistants. Alteray the Surgery _ iP disease persisted inspite of aggressive medical TX Complications of Phinosinsibis Orbital complications _> Lidedoma, Orbital allulitis, Orbital Abscess Waningitis Epidural abscess Covernous sinus thrombosis Spott pully Europ Alseal polyps. Nacal polyps. Nacal polyps. Nacal polyps. Nacal polyps. Marchinkable. 		- Aled Sallie joing - May and -
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 Signaric Sterolds (10) - configuration Alteragy the Surgery if divense persisted inspite of aggressive medical TX Complications of Phinosiansibis Orbital complications tidedema, Orbital alkulitis, Orbital Abscess Meningitis Epidural abscess Delt pully, Lennor Assal polyps . if in children think of cystic fibrosis grey cellar mobile non-tender non-tender non-tender and 	3	Salar clarable and deconceptionts of the hadden to succeed and the
 × Surgery i P. diverse persisted inspite of oggressive molical TX ★ Complications of Philosiansibis ③ Cribital complications tid eduna, Orbital allulitis, Orbital Abscess ③ Epidural abscess ④ Cavernous sinus thrombosis ⑤ Polit puffy Lennor > f in children thinks of cystic fibrosis > Nasal polyps VS turbinates Niasal polyps VS turbinates Nasal polyps VS turbinates non-tender non-tender and the line of the line of	6	Allaren Lla
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 (2) Meningens (3) Epidural abeless (3) Cavernous sinus thrombosis (3) Polt pully termor (4) Assal polyps (5) Polt pully think of cystic fibrosis (6) Assal polyps (7) Assal polyps (7) Assal polyps (8) Assal polyps (9) Assal polyps (9) Assal polyps (10) Ass	1 0	Orbital complications _> Lidedema, Orbital cellulitis, Orbital Abscess
 Epidural abscess Cenvernaus sinus thrombosis Polt pully Lumor Nasal polyps if in Children thinks of cystic fibrosis Niocal polyps VS tarbinates grey cellar mobile non-tender non-tender noshrinkable 		Meningitis is a provide the reader the set of the way to the
 Cavernaus sinus thrombosis Pott puffy tumor Nasal polyps . if in children thinks of cystic fibrosis Niacal polyps VS turbinates grey colar mobile non-tender non-tender ansprinkable. 	3	Epidural abscess
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-> if in Children think of Usan	æ	Nosal polyps.
Nosal polyps in the formation of the second	->	it in children think of cynthesinates
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unshrihkable.	-	TXT-EUROP
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		AN SHUNFORD

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Jeit	Obitis Meelia Inflammation of the middle ear cleft mucosa
	and the second of the second sec
×	Hiddle Car deft includes & DHiddle car cavity 2) Sustachian tube
	3) Aditus, antaum and mosterid air cells.
	and the local states
`` }	Obitis media) duration < 12 useks) acute
_) duration > 12 weeks chronic
-3	There are other classifications: recurrent stifts meetia, chronic supportation OM,
	- none ton - up out of a line
	alitik medik
	The mast common dispose of childhood, next to viral URIT.
	I is a real meloral intertion in GOV of Greek (1-6)4
	The well Passent dispasse possibled by Alax
	The most request or and Brance by Anto
M	Acute supportive Obitis meetra , Acute backerial infection with provent
	existate in middle car, characterized by rapid signs and symptoms.
	Series and about a lad about Odobil allutes a dialar distance and a
×	we should know the anatomy of the Euclachian tube bez most of the cases
	of OM are due to ascending infections
and the second	Jestimore sums Heating
	Tuskiching like hipe connects the middle ear cravity with the nose drocyment
	2 C . Has not wear the wass phonenes in Cartiliainans (trave thirds) and the dith
	3.0 Cm, the part rise sie the product of a free (and only in the second se
	one shird is pore.
)	Functions of the first photomation and missie car 2) republicity after
	graind the TH 3/ trainage of contents from the middle ear y preventing top
	d-Huids
	Destruction of the
	· valo for the

Pathogenesis & AGM A Stage of tubal Obstruction ET obstruction -> Middle ear air a bsorption -> Engorgement of middle ear cleff mucosa pre-supportion stage (pole injector) Acute inflammation of middle ear cleft -> Hyperemia of TM _> servers exudation B pre-supportion stage -Bulging of TH El stage of supperation (Middle ear contamination) [severe severe pain] Exudation becomes purchant _ Further congestion and bulging of TM. TH may rupture -> Discharge of pus Distage of resolution usually resolves with Tx and middle ear returns to normal. * presentation of AOM 1) Otalgia 2) Ferrer 3) slepplessness 4) Irretability 5) pulling of ear by the child 6) some degree of hearing loss 7) Ear discharge () Tinnitus 9) Ear fullness 10) Dizziness -> The UC is i) Strep. preumonie -> 2)H-influenzae B->3) Moraxella catarrhalis > TX -> at least Br 10 days using a broad spectrum systemic Abx. 2) Acute recurrent ofitis media At least 3 or more episodes of OH in 6 months or more than 4 upisodes in 12 months , with complete resoluction the every attack. 19

3 Otitis media with effusion (flue ear) (chronic non-supportative OM) > MC disease truled by pediatricians > Myringotomy and lube insertion is the MC suggery in children >Hain presentation _> decrease in hearing. > Mc cause -> Adenoid and tonsillar hypertraphy > The fluid in middle car carb be > servers, mucoid, mucopurulent > HX _> conservative HX _> anti histomines and steroid inhalants to restore function offer La Surgery - myringdomy and ventilation tube insertion alowy5-7 theat working course Metex in adults with unilateral glue car, suspect post-mosal space molignancy * Types of tubes used 10 long lasting tube (T tube) (2) Shorts lasting tube (Grommet) (Chronic supportative OM -> any perforation of TN for more than 3 months 12 Lypes & A) Tubo tympanic B) Attico antral (asosofe) (sale) * Causes: D Lote Tx of AOM 2) madequake or inappropriate Abx in case of ADM 3) upper airway sepsis 4) Immuno suppression 5) virytent infections, e.g. measles (B) Attico antral CSOH * Cholesteertoma -> Keratinizing Squamaus epithilum remall sac, alubo dela Posteriosperios perforation errosin day poblic vice gib * Always have Sischarge @ Tubo Lympanic CSOH - Deafness - Discharge - central perforation of TH * Discharge an the stop some times TX ->Type A -> Topical Abx (the Mx Cousalive agent is P. aureginosa) for 3 weeks signed until we get a dry middle ear, ear bilet, avoid water, Lype B, surgery - Tympanomastoidectomy 29

# Wiph	Lie 2) Men	inaitis 3)f	Xtadual	Abscess	High photos
1) Acute mostoro	5) Sub	dual absens	6) labr	Un Hhitis	
u)Brain (+bsels)	- Josef	2) Covial no	100 - 101	a) optionsite	ie a dana
7) lateral Sinus	promoosis	o) factar po	ive poisy	y peccosi t	
	<u> 90000</u>	the vocal couds	S MANUAL DAMA	distriction at	2 Martinger
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8	
(jeisti	Strider
	High pitched, wheezing sound caused by disrupted airflaw.
×	Stridor is classified into 3 types acording to phases of respiration 8-
®	Inspiration a obstruction at the level of vocal cords or above
B	Expiratory obstruction below the vocal cords (at the level of trachea)
©	Biphasic -> glottic or supraglotic obstruction.
0	Laryngomalacia > concernibal Softening of the tissues of the larynx above the
wayar 100	vocal cords causing it to collaps, and it is the mc conginital cause of stricor
4274 ⁷⁷ 00	in pedietrics
- 5	Hx, It gets better alone
	or Supra glotto plasty
	Dress builds take (T Baller 2 -
2	Acute epiglottitis
200400m 	mc causative agent is H-influenzac type B, sections manys a
	presentation: dysprea, striver, cysprague, tever
	Thumb Sign
less per trans	MX - 1- Intubation 2- Steraios 5- Men
(3)	Can (Aule larrestrates branchitis)
	Carp frank in gran 2 parcinfluenza viruses (1/2,3)
ano	the coustout gene is primetablea, sone throat, horesness
antal may	Proventation States , and pathle sites:
	steeple sign, penul sign, are revolue syn
*	Tracheostomy an imasive medical procedure in which we create a connection pty the traches
	and skin inoder to hypass an obstaction in the upper armany.
	Indirations
	Ween average dostruction Stumon, infection, Briegen boly, coccel and pacifysis,)
6	e-lowed Intubation
6	the Califale among of respirations correlation
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22	

	u descenario , chande in the voire quality from voire harshness to voire weakness?
	# Hausines
	* Larygeal cartilages as in the loss of him which are here and here which are here here here here here here here
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	aliter a tradition shipe the shipe and the advertage and the second states and the secon
-	x Larygeal muscles
	> Extripsic muscles - more the larger superiority and intering the
	the suprahyoid and infrahyoid groups and the style phanyingers masche.
	Suprahyoid muscles 8 1) Genichyoid 2) Mylonyoid 3) Digastric 4) synnyour
	Infra hypoid muscles 8 1) Thyrohyord 2) stendtry roid 3) sternonyord 4) Orionyord
	and a prime and a discussion (approximately and
- 1	Intrinsic muscles -> responsible for the vocal cords
	1) Cricothyroid 2) Thyroaretenoid 3) chicoarytenoids 4) ranswerse + oblique arytenoids
	the second of experience proved before the barrier within the barrier
Notce	~ How intrinsic muscles are supplied by the recurrent larged rence exept for the
1.0.5	another and repliced by the superior language revie
	checting and the ves is from superior largingered revie, below the time ves is from RLN.
	Sensation and platter myscle is posteniar cricoarytensid.
	-> the only langepen away of the
-	Planneton almos in largageal mucesa, for less than Zweeks
O	Acute lary ngitis -> intrammutery churge acute voice strain y) Henverhage (Uscal Cord edemo)
+	Ebiology > 1) Viral 2) Balleria 3) NRTI surdrams 4) Cauch 5) Dypnea 6) stador
+	Clinical Reatures) Hoarsness 2) Appronia of an unthe inscular injection and normal mobility.
*	7) Tour vocal cords Fire enginemators redemators with the same of Alcohol and and and and a
+	preadisposing factors) over us of voice 2) UKIT Statisting In
	NX Noice rest, hydrotion, avoid irrelants
6	Champic lacentitis - inflummations changes in the daryogical mucesa for more than encers.
0	En 1) Smilling 2) BERD 3) recurrent acute larging tis 2) Chronic Voice strain
->	Liology > Datorstry the missol drip. 6) Chronic alcohol use
	5) Chronic sinusitis with post many of animal structures
)	features)) Atrophied mucosa sprannent granning
-#	eukodakia of vocal cords _ preconcercus accumulation of kuratin (white plaques) on the VCS.
-	

3	Vocal cord polyps
	nost common benign turner of the wood eards
	issually interest Unibleral
	It doesn't have a classical site
	How - , Shop smoking or alcohol, anti-reflux medications, vocal cods rest and surgery
Y	Vocal Cord northles (sincer's antib)
	usually due to word abuse subarythalial than above a Property in the
-	usually bilderal
	It does have a classical site (on the junction when the anterior one third and the actions to that I
	MX > rocal cord rest and speech thoracu.
	hand a second of the hord of the second of the second of the
5	Vocal cors cypt _ a sac around a fluid filled or somi-solid center.
	2 types -> () mucaus retention cysts (3) Epidermoid (sebaceaus) custs
0	a list mutates a property for the work study
6	recurrent respiratory popullopolosis
+	Development of exophytic worky lesions primarly within the larger
	penign -> HPV (6, 11)
	Nalignant _ HPU (16,18)
	either of juvenile onset a of adult onset
	a the add larged about on present consequences
Ð	Vocal and paralysis
	causes: 1) neaplestic 3 any tumor that could invade the vocal cordsor largenear nerves and along
	2) Traumatic mostly ideagenic trauma
	3) DM, crice anytensid birt adhrebis.
	the way and the method to set and the sector of methods and and the sector of the
Ø	Reinke's edema -> evelling of the vocal folds sue to fluid collection (edema) in
	superficial lomina propria of local folds (Rinke's space)
	Symptoms -> Hoarsness, dysphonia, dysprea
	RES -> Smaking, GEBD, hypothyroidism
	Mx -> eliminate the risk hada
	Lissingery and a harris to any the second of the
	and and an encounter of the state of the state of the state of the second secon
	a Kydekia J. 2000 (1800 _ 190 consume main

() Laryngeal Carcinoma ~ Glottic > Supraglottic > subglotic dysphagia stridor Housness * RES- Usmaking, HPV (RRP), Alcohol, GERD, Genetics, previous reck radiation. * Asbological Lypes - 1) Sec 2) solivary gland concers 3) Saccomas (chandro saferma from cricoid Carbibge) All) stages 1, 2 -) radiation stage 3 -> surgery vs chemo radiation stage 4 - surgery with possible past op radiation. munit At 25

reist	
(10)	Facial & Nosal trouma
~	subject segrentillite s sub-alpha
*	Facial trauma (maxillofacial) trauma _, any injury (blupt or penetrating)
	to the face, including soft tissues injuries such as burns, laceration, bruises or
(apolishi	Fractures of the underlying skeleton, sinuses, eye socket or teeth
V	added and the set
->	The principle of Mx _ stabilize the pts meetical condition and resuscitation.
L	by CABCS of trauma
	C-> stabilizing the cervical spine A-> Adarway nox B-> breathing C-> circulation
	once stable, relevant Hx may include:
j	Hechanism of injury 2) 1055 of consciousness 3) Visual disturbances
đ	Hearing problems B) Discharge form ear, nose 6) Numbress, Lingling.
オ	Physical examination
	DFace (asymmetry) 2) Eyes (maxments, Assess pupils) 3) Nose
	4) Ear (lacerations, CSF leak) 5) tongue and mouth 6) mansible and THJ.
	7) Teeth (risk of aspirating the booth) 8) Granial nerves
	and the first of the second se
=	> soft tissue traumer
	1- Managing blood loss 2- prophylactic #rectment measures (Abx) 3- Analgesia
0	y - wound imention and closure
_	Skeletal frauma
	- Lefort fracture - Zygomatic bone (malar) fracture
	- Orbital (blow-aut) fractures - Fractures of the modible
	and the second sec
	a subject by a successful and fails shares and a

1	which result in periorbital hat sagging into the maxillary situs
	easing some and not be the the oblig and gradually have be presented a
⇒	sight and symptoms.
	1) Viplopia 2) restricted eye movements 3) byelid swelling 4) thopkholmos
_	5) paratethesia 6) Crepitus
¢	Mx involve a maxillo-facial surgeon and in optimal mologist
~	- Analgesia -, steroids to reduce the edema - proceed to greation
•	Indications of surgery -i) Deterioration of usion 2) Enterprisent of eye with restricted movement
	Starlune & mediral therapy
-++-	Nasul trauma
+	why the pose is fractures after trauma ?
-	1) openuse of its contral and prominent position in the face
	2) lack of skeletal support
	3) upper one third is time girl lower two thirds is cartilage.
	told a spine rabil prince and the charge and a the forman and as the
3	if anterior hit (traving) -> Depressed fracture
)	rf lateral hit (travena) Dislocation, displacement, aulsion.
-	Signs and simplements
7	- Defamily - may obstruction - Episbis - swelling and discolupation of skin
	- Rhinorchea - periorbital and subconjunctival ecchymosis - Septal hematoma
>	Condications and a four patients (E patients lange a strong () and a
	1) Cosmetric deformity 2) epistaxis and CSF 1.eak 3) Septer hematoma and sould knose
	deformity 4) Arrivery dostruction 5) septor perforation 6) septor abscess 7) Rhinolith
	8) cripatora plak fracture
-	Nx _s if cut wound - (stop blooding, class the wound, cover it, Abx,)
-	In case of Fractures -> no deformity, no reduction / Deformity -> neoluction
	but it- you wont to reduce wait 3-7 days, until the edema resolves, but it any
	vital organ was compromised do it emergently.
-	Edd to be Phillipping and Debacco and and the set of the

Veisti	
M	Endewice and the triangle of the second seco
	Epistaxisnasa bleeving
	Plus lin up II agree Po the med soften and specifically from the Kiesselback's
	Bleeping usually arises from the most sodium anastomose and it is located
	piecus where the vessels supplying the result separation
	in the anterior part of the separiti
.05.0	Causer and and the address to Section a start with
	Leader (1967) (2) Ecomptic Bloffammatory (2) neoplastic SEnvionmental
	Blat and B HUT (AD abound what ressels formation, epistonis, petechiae)
	a day a Olymontal Billing Stranders & Anti-Toppelants OHTN
	Sastanic - CHandphala Clokeng - C
1000	the scho the presting and treat the underlying cause
×	Han to slow the bleeding of
	Manual divided pressure - Policent learning forward, breathing from the mouth, pressing on lover
2	Chamical caulery with silver nitrates thomas laterate to shall be
્રુ	Flectric cauters a diathermy that and had have the most of the
4)	Anking or posterior pasal packing - with ribbon gauze + Abx to prevent of
5	Anaimmahu and vessels empslization and a count to me
6	augical MX module to must be anti-sate (areas) to house
	Sugar
-#*	Sental ortoration
- TI-	Causes: ()Trauma 2) Infection 3) Neophism U) (nflammatory 5) Inhalation of irrebants
	Host perforations are asymptomatic
ing D	Features: 1) Foistaxis DNasal astruction 3) whistling several on preathing
<u> </u>	4) Druness of pose and crusting
1995	Ux that the vanderlying cause
streen) if asymptotic -> information cassinging
*70.92 <u>.</u>	L CLEASONS
a Trans	- meat buching in a long of a state
withen	Sucon (actor flag)
-	Jerme Compressed de 1- emargental
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- Contraction of the contraction	The second secon
28	

	12 is a subjective sepsation of movement insually rotation with some times likeour
	the phaseline sime I undra is much growing to more sine sines much
	Ly the enjective sign of vertige is high cultures
	a hard the second hard hard hard hard hard hard hard har
-*	Body balance is maintained by the input to brain noin the line car, go,
	and proprioceptive organs
<u>ح</u>	Causes of Vertigo
Ŀ	non-delogical courses o
	1) Cardio Vos cular (Postural Appotension, arrythmia)
	2) Enducrinology (hypoglycemia)
	5) (entral (neurological) transient ischemic attack.
	T) Drugs (Alcohol) antihypertensives ,)
	3) Hyperventilition (psychological Lipanic attacks) / 2-
	6) physiological (cging poor eyesignt, impained propertient
	7) Head Injury (raumourc)
	3) cervical sponsylesis 2migrate (9) charges
1	For Course to
	Remain a price of aritingal vertige 3 Meniers disease Statinghitis
	O Being Michael Partient
×	on historia a
0	Timing and duration (episodic, persistant) (secs, mins, hs)
2)	Augl syndroms (dealness, tinnitus, discharge)
2)	Neurological symptoms (LOC, weakness, numbress, diplepia, dysarthria).
	transid and the first state of the state of
-	for example
,	episatic with aural syndroms Meniere's disease
	2 without - 2 BPPV
	constant without a s Neucological, CV, drugs, hyperventilation
->	sever acute solitary attack with aurol symptoms _ Labourthilis
-	Duration - secs -> BPPV
7	> Mins-hs, Menjere's
	a las dans labourthites
	ms - units - Luminitation

-×	Meniere's Discuse
	Vertian (mins to bs), decrease hearing, tinnitus, awai rainess
~	Max salt restriction and diuretics
	Min a Sur Courter
	Laboration (undibular neuronitis)
	Cobrynthitis Crestinitia i ce
	bc2 of a vital infection
	The vertigo is usually of explosive succession
<u>_</u>	we do MRI to rule out strong of control of 6-12 weeks, but the acute
	Stendy resolution takes place over a period
	phase usually clears in Queek.8
	((nametorial))
-2	S BPPV - Elight eves
×	s cause _ Otoliths missdisplaced.
	> Diagnosis -> Dix-hallpike test (to trigger the BPPV and see the nysbagin
	TX _> Epley manoeuvre
	(Transmeric)
	oldavic Same
-2	Cototoxic Saugs
	e Otoboxic Saugs > Aminoglycosides (gentamycin)
-2	E Otoboxic Snugs > Aminoglycosides (gentamycin)
 	E Otoboxic Saugs > Amiroglycosides (gentamycin) > Perilyroph Fistular -> rupture to round window membrane or injury to footplake
 	E Oboboxic Saugs Aminoglycosides (gentamycin) S Perilymph Fistular -> nupture to round window membrane or injury to footpilak > Mx -> bed rest then surgery.
	E Otoboxic Snugs Aminoglycosides (gentamycin) & Perilymph fistules -> rupture to round window membrane or injury to footpilak >Mx -> bed rest then surgery.
	E Obeboxic Snugs Aminoglycosides (gentomycin) & Perilyrph Fistular -> nuplare to round window membrane or injury to footplake > Mx -> bed nest then surgery.
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	s Oboboxic Saugs Aminoglycosides (gentomycin) s Perilyrph Fistular -> rupture to round window membrane or injury to footpilak > Hx -> bed rest then surgery.
	s Ototoxic daugs Aminoglycosides (gentamycin) s Perilymph fiskular -> nupleure to round window membrane or injury to footplak >Ux -> bed rest then surgery.
	Cheboxic daugs Aminoglycosides (genlomycin) Perilyrph fistular -> nuplare to round window membrane or injury to footpilak >Hx -> bed rest then surgery.
	E Obeboxic Snugs Aminoglycosides (gentomycin) s Perilymph Enslula: -> nuplare to round window membrane or injury to Footpilak >Hx -> bed rest then surgery.
	c Otoboxic Saugs Amiroglycosides (gentomycin) s Perilyroph Arstala - rupture to round window membrane or injury to host pilok >Hx -> bed rest then surgery.
	COtotoxic Sauges Amirodycosides (gentemycin) s Perilyoph Estude - nupture to round window membrane or injury to footpilak > Hx -> bed rest then surgery.
	Cototoxic Says Amirodycosides (gentomycin) s Perilyoph Fiskular - nythere to round window membrane or injury to bootpilak Mx -> bod rest then suggery.
	Cobotoxic lings Amiroodycosides (genlamycin) Penijyeph Arshular -> ruphere to round window membrane or injury to Pootpilak Mx -> bed rest then surgery.
	Cobotoxic érugs Amirocolycosides (genlomycin) Penlyoph Askular -> rupture to round window membrane or injury to Postpilak >Hx -> bed rest then suggery.

(13)	
ولينص	s Surgical thyroid diseases
	The oil eram and be shown of a many is boud as a maining of the tat
	the set of a look a
•	mytaio grante o
	aladina : Considence and surface lendernass, theil movement. Feel the trachea
-	Orrussa Bala slamal anter
	Auscultation - Bouit
	- Remember lunde pale examination
	Penhectan's Sign
	- Anxiety - oukes rate detton ships of al public and al
	Hands Teno, sweating, palmar erythema, acropathy, themar.
	hteaumentary: dry skin, loss of eyebrow hair, pretebral myxedema
	· Fues: lid retraction, lid lag, extraorcular notility, exploted motion
	· Deep kendon reflexes · proximal myspathy.
-	The most common reoplasm of Thyraid gland is _ Benign follicular cell adenoma
-8	The 2 2 malignent 2 2 2 2 2 populary carcinoma
	1) interesting with the houseness pathon with newson between transmission of
*	Higher malignancy OSK of thyroid nodale
ì) It is very firm, fixed to adjacent structures, rapidly graving, associated with enlarged LN,
	causes vocal cord paralysis, or Syx of invasion into neck structures are present.
2	2) FHX of thyrois cancer
3) Patient's age and gender (young, male)
ÿ) Hix of Head and neek radiation
5) Hx of Sisenses associated with thy aid carcinoma
6) suspicious findings on imaging
	2) Alapa et univerneres bijerto and a
	al-2 (alle - 2 have all
	a fall i lar ranjum -
	Surgering the multipany - 75
	Q Maligrant 94
21	0.0
01	

	Approach to Unyroid nodule -> measure TSH and perform ultrasound of thyrad and neck
	IFTSH is law (primary hyper thy raid) -> perform a thyroid uptake and scap
a	The make itself is two functioning (taxic adenoma) _) Lobectomy
B	All the theorid is here Curriching (even the rodule)
	give anti-through medications
P	an U/c it high circuit ins fer haves > Po FNA-cybology
(i and a second s	of of the follow up.
C	The value it all us all functioning but the rest of the thyraid is hyperfunctioning
dimension (the board to the light of the
	We true hyperenyiolism
gi ann anna 🔤 💆	DO FNA-coosiogy to the neuric.
a de la constance de la constan	18 Tal a algoritar (Fig a high through) and the second second
jim	17 1SH is normal or elevated class or hype inflores
provinsion L	on U/S _> High Suspicious Ferrar 6 months for 340005.
and the second	Lyit not - +alow up every o manual a
Jo att Tall Color	2 all it draw and the detailed in the second the second second and
prostantin 🛛 🕹	Suspicious podule features
jantan S	Hypechoic 2) High card heart of 5) Instructive integrits
j.,) Taller than wide in transverse plane of threases contain infortances
gran anna 😽	suspicious LN features
a and allow	Hypo echoic 2) Bounder 3) Absonce of total million of agence is particularly grant
5	Hicocolatiations
Jaho Marian	
diene anna de	Betheada system for reporting thyraid cytopathology
apart allow	non diagnostic or unsatisfactory -> estimated nisk of malignancy 1-1
2)	Benign (nodular goiter, colloid goiter,
Gall Maria	kashinda's thypoiditis) = 2 2 2 0-3
3	Atypia of undetermined significance or
12 all the second	Folliaularlesion of the = (FLVS) -> 5-15
4	Follicular neoplasm or suspicious for
Mathan	a follicular neoplasm
R	Suspicians for malignancy 60-75
6	Ualighant 97-99
and the second	
09	
34	

* Mx according to Bethesda System repeat FNA alur, consider surgery Active surveillance -> High Suspicion -> Lobectomy or total thyroidectomy 3+4) low suspicion >> Diagnostic Lobectomy - Molecular diagnostics ort > Active surveillance Or or Lo repeat FNA 5)+6) > surgery * prognosis according to MACIS <u>M: Melastasis A: age C: completeness of resection T: Invasion</u> S: SIZE * complications of thysoidectomy (A) Injury to related anatomical structures 2- external branch of SLN 3-damage to trached 9- pneumothera 1- RLN 1-Hyphyroidism 2-Thyroid Grisis 3-Hypoporathyroidism B Hormonal (Wound site 4-Tracheomalacia 2-wound infection 3-poor scar 1- Hemorrhage 33

(14)	
تلحنص	Neek masses
	the sterior triangle by the
¥	The neck is devided into an anterior triangle and a posterior by the DSCM, 2) Hardible,
	sterno clerka mastaid muscle. The anterior triangle is parting by p) traptizius muscle, and s) chills
	and 3) the midline. The polerior triangle is know by new of the
	R 11 hardrah to the director and omorphic myseles into a
	The anterior triongle is further denoted by the applied bine 3) backy of hypoid bare
	Submental L blw the 1) Anktion being or organice grand in g
	and it contains submental lyngh noves.
	2) Submandibular Lotu the 2 ballies of lumb rates 2) Facial adery 3) Facial perve
	and contains) Submandibular granis and granis of a second
Deser-	" Aderoin Line barrar heror border of SCM, Anteroin beriorly by the superior bely
Ser-	3) Carotio triangle [postarior belly of digastric]
No-	or omonyoid, Androsetic adamy 2) lokennal jugabar vein 3) kist y cranial perces with the vigues herry
7500-	and contains in an one of the second
Page-	LEU 2- external hands of SLN 3-demage to trach as 4- active thread
Maner -	The other triangle also have subdivisions including the supractivitular triangle which
17.00m	contains D. Sugaclaviantar lymph notes 2) subclavian vessels
283apres	
w992ga-	* Cervicel lymph nodes & but a superior and a superior and the
Witten	() submental @ submondibular 3 Pre-auricular @ Post-auricular () posterior accipitus
1.910m	@ (upper, middle, buer) orderior cervical @ (upper, middle, buer) posterior arrival @ superclavicular
No	te that all of them drain from neek and head except for the systaclaviaular, they drain from
	but helder and above the neek
No	that enlarged supractavicular LN is called virchaw's node. The prescence of which is
	culles Traiser's sign.
	* Levels of corvical lymph rodes
	I a) Submental b) submandibular
0,000	I (superior spinal accessory) (superior jugular) (Jugulo-digostric)
ato day	III Hidjugular
and the second s	Ⅳ (Inferior Jugular) (Jugulo-Omohyail)
Vitte Day	V (Interior spinol accessory) (Transverse cervical)
Water Same	VT (fretrachial) (Varatacheal)
Non-Jac	VII (Intradaviculur) (Antoriar medicetsinal)
Northern Con	
3	1
and the second se	

•

1.01	e.g. tongue Ca. goes to levels 1, 2, 3 , Caner of larger goes to levels 273, 9 410
	some times 6. Por-ouricular LNs drain the Skull, ear, conjunctiva.
	and a star of starting succession of the starting
Note	that 50% of pack mosses are sudlen lymph rodes. The remaining masses the
	most common of which is Thyraid enlargment.
	in most of dealer
Note	that neck masses are either time masses or pseudo-masses.
-	preudo masses , it is only an anotomical variation
~	examples -> elongated styloid process (eagle syndiame which can cause glossopharyngeal neurarynes)
	people with tall thin neek can bel this.
	Lyebrapited transverse processes of axis (C2)
	and and all and a more a state of the product of the product of the territory of the
3	The moses
L	Congenital 8 1) Thyroglossial dict cyst 2) Der moid cyst 3) Broncial ysc / Sinfrangi
	5) Hemangiance and AV malformation
	peuelopmental; i) laryngoceal 2) Zincker's Diverty allam
ļ	Acquired 8 1) Inflommatory (Infective and non-infective) 2) (copusin
Æ	Convenital true neck mosses
G	This dist list
V	the Unit of almost grainally grises from the toramen cercum and decends through the thyroglassal
	(ad will if reaches it's pre-traches) position. the tract should obliterate, Incomplete dosure
	In Pailing I sandution of the tract leads to thyroglassal duct syst.
	of runtice of interestion
	me site to use the in rediatric age group in the first 10 years, However 25% of cases are addite.
	conclines it might be infected and painful
	It almost alagues moves with swallowing and tangue patasian, but lock of maxement art exclude it.
	actor to surgery we must do U/s or CI scan of neck, why?
-	Disidentify the order ties of the mass 2) to assert the prescence of thyraid gland and bissue in its right position
-	2) There is a 21 risk of malignancy in this mass, save take a look at the surrounding LNIS
	while they prive disection or not.
	The man & the moration is Sistern & operation, where we remove a part of the hyrid here
->	The part of the granter by abut S/ only.
t	2 derenje frie versiturite to some of

6	Decencid cust
1	Foldenmaid and herion cert usually faind on the skin, the cyst develops at
Second Contraction	- ectodermal listue Histoleorgality it's made of a thin layer of squamous epithelium, and
in the second	usually found at sites of impound fusion of the Skin.
and a state of the	True tormitiest milling miss consists of skin and appendages like paint, sweat about
A CONTRACTOR OF	and solving on the thing the dread throw with surplaving and tongue protrousion, and thing is
Sector Concerne	he placed and planned
in the second	Territory Drowel From all three compall layers.
2019/2002	autorial lameters as the exemples
(2	Branchiel (14)
No. allow	it's derived from the second pharypaged pauls, it appears in teens to buenties, behind
Volum Olim	the junction of the unper one third and lower two thirds of SCM. Some times a fistule
Activities.	my arise for it (pranchial fictula) externally at the junction or opens into the tonsillar
2007-2000-	Possa .
Magnettane -	wedo uts or CI scon with contast first Upp Surgery
And a second	attenues and AV addressed
y	Lymphangioma - benign tumor of the lymphatic vessels
Antonio	small size -> simple capillary type (and a size -> simple capillary type
Mattheway -	large Size Conversions type
Mariane	widely spread communicable channels, cystic hygroma and allog soil have
Sattle Barne	the dut cit
	Cystic hyproma -> presents at birth usually at bey junctions (neck and bunk, trunkand 4 (good)
	Investigations 2-
Married L	Lymphangregram -> cystic hygrama 2) Excisional biopsy -> capillary and covernous types
, 107.400am	TX -> if small and a syx -> leave it
242074004pm	small and syx - excision
portowing.	large senial excisions
Note	that sometimes we inject a sclerosing agent which lead to fibrosis and shrin kage
wow	of the mass Perty dass to me to a city of the au use
Note	that we may use radiation therapy but there is rigk of transformation into lymphangusat
wan	when a rate of analyzoning in the most some to is a lost of the secondary lite
www	the loss caying direction of rate.
www.	the people of the people of Schemic quistion, where we crow a put of the land range
William -	alog 18 frequeres for about 51 colo
in the second	
Longer -	
36	
offen	

	to benigh tumor of L. Abnormal communica	tion blow the
	the blood vessels arteriales and the	ventes.
	I liace to whether where ability services in territ	In the course when the second of the second of the
	AV malformation	Hemangiana
	present at birth	present after few months of birth
_	Constant in Size	Have 3 phases:
	Coloniel Maria Concernation	1. Gewing phase (2years)
	- & Energy	2. Steady phase (2 years)
	Cold Commentation and an	3. Induction phase (2yours)
-	usually non-blanchable, however it	usually blanchable, however it cald
	an he blonchable	be non-blanchable
-	Usually do not have feeder vessels	Have fæder vessels (asally one or two)
10te	that it any petient posents with hemangian Gress with automaus hemangiana have de > Hemangiama on Orest with the syx > = in the largox = Tra > to decrease the period of each phase we may use angia gram with embol > proprovolal causes shinkage of it. Sturge-weber synstrome = AV malform nerve . There is part whe stain of the > retinal Hemanhage . or AVM in the h Hernit Kasabach disease = kinge twill (by breaking RBCs and platelets) = ane	na we should exclude dep humangiana (201, of ep humangiana esp. in the liver) -> Assurance of the pt. cheastory until it releases -> closure -> injection of intralesianal straid. ization ration at sike of aptholonic division of the trigeminal Rate. may be associated with AVM in the dwaid 2021 -> vertricular H. and eplepsig. M & hemangiama lead to consumption of the blood mia and thrombocytoponia -> OIC and high-output HF.
		all and had all

	B	Developmental neck masses
instruction	\odot	Laringocete the design of the
100 mm	-	The laryngeal ventricle is blue the folse and have weal cords
	_	IP there is a human of the ventricular opening this will lead to ventricular chlorgement.
	1	Diagnosis -> CT (mass filled with air or mucos) and Direct lungingoscopy
		If lorge and syx -> Excision
		Carebout in Size How 3 alton Side
100 martine	3	Zenker's Diverticulum
10014-0300		lower phanyingeal construction muscle has two groups of fibers:
NO. 2000-		Oblique Liber (thyrophoryngeus muscle fiber) • Transverse Fiber (cricophoryngeus muscle Liber)
421-000-	->	There is given K area blue these misdes which is called "Killian bringle" so the hulge
Ser and the second s		accur in the mucosa of this area
hiteman	->	Syx: dysphagia, halilosis, undigested food regurge, neck mass
from the titles		presentation usually ufter 50 years and more common in males
www		Dx > Barium suallar and the thirty and another the state of the state
haterson		TX) if small -> Diverticulatory "trans-orally
Verturber		Liff large -> Diverticulatory by external approach.
1000/W70000		is the locker in tracher with it releases a closure
	~	Sepaceous cyst -> closed sebaceous gland moves with skin and theated by total excis
Martine		- It has punctum.
Valley		atomia course and hade of the
National	÷	Carotid body tumor (potato tumor) (chemodectoma)
Var. 1. 199	-	It's part of paragong limons
Varia-		Arise from curetid body which has baroneceptors and chemoneceptors
2009-000		On examination -> put sat le neck mass which moves from side to side but not upwas and are
And a state of the		Dr -> MRI (salt and papper apperance)
1409-40 <u>0-</u>	-	TR > observation, radiation, surgery (before surgery 3-2 days we perform any open with var
percentaria	-	tophing Kid and phylology - anona analycos program - D.C. and high with Ht
Northeast		
2000-0		
water		
second		
m		
warden		
2000		
language	2	
3	38	

+	Salivary glands
*	Uajor (porotid, submondibular, and sublingual glands)
-	Partid (the largest, it's duct called stinson's duct, opens apposite to the upper 2nd molar
	booth, facial nerve devides it into siperficial (90%) and deep parts and devides to its
	terminal branches (Terroral, zugomatic, Buccul, maginal mandibular, cervical)
4	Submanetibular (devised by the myblypid muscle [Diaphragen of floor of mouth] into superficial
	and deep ports) its duct called wharton's duct spens just lakeral to lingual frenchum.
T	Sublingual diands (drains directly through the mucosa and through unparton's duct.
	(he (provide the provide) and a second of the provide the provided of the prov
+	inflammation of the sulivary glands (sialadenitis) usually in paration
~	Stores 2 2 (Sialalthiasis) usually in the submandibular with narrower,
	acute angle, thick socretions, more a content, washout with stimulus
-	Parotitis _> coused by viruses (mumps) or buckeria in dehydrated elderly petients (staph and analeropes)
- Asse	Lawe should encourage hydration, Abx, antipyretics, analyesics, lemon drop to stimulate secretions.
1	Siatolifficiosis _ 90% are radio -opaque stores
	LoDe _ sidogram = filling defect.
	(engen all i some a constant al constant
#	Tumors of the silvary glands
j	> 80% in the portid, 80% of perotid neeplassing to planman in a company protion in the
	are pleasing phile adaption (21. 1) of 4 transition that the prestrations (1)
	obher benigh tumor -> Warthin tumes
	tramples of propagation found invession of the facial nerves
	Dismassi > Fully technetium scan (All SE-turnors are cold except warthin and oncocytoma)
æ	Warthin tumor (Adenalymphoma) -> tumor of elderly smoker males, recently finidence of temple pts.
	TX -> excision
	we differentiate blu Submanibular gland tumor and submand LN by bimanual Palpation
	"Bullotement", if ballotable, related to gland, & not -> LN.
	Margin grand _ downwalkabaa soned TA Ne No - adartion
7	r Ludwig angina _ Abscess in the submondibular and sublingual spaces / may cause certuilities
	in the FOM & present as a neck mass
	The edema is FOM may push the tongue upwards and backwords callsing alway ops.
	TR > Abox avering annerobes + singical ocalipage
30	OH .

-¥T	Biscrotala	
-> U	encelly affects corviced LNS, mostly by mycobaclerium tuberculosis.	-
-> (presents with cold abscess (non knoter), by needle aspiration, then gram staining,	-
0	cid fast bacilli staining, culture	+
	P(+) > Anti-tuberculosis drugs	+
-> -	ton't do incision and drathage to augit smus formation.	-
-	12 surgery _ lotal oxeision_	-
		1
-*	Actinomycosis (ase) b. Actinomysis terral (Anna Any anna)	+
	acceled by dental porceduse of which the gram (+) (00)	1
	Centure share a relian michanne a della condis	-
	To since in and dranger & Danie the	1
~	IN _ THE SUL WE DIDING T POPULINIC.	-
Six	Gold strand for neck masses . File	
	in Ball of Hely make we find the and a find the the	
	in correct mensions we that the pomary can staging to MAA system	-
->	P PCT when you location a nor location and a submitted on the later	
7	IF I I was pon-localized a operation com - explore ry enerscope - it nothing -	
	tensilectomy the primary may be recalled in the crypts)	
9	IF regative -> total rela LNS OFSIECTION + radioentropy.	
	material state and state a	
÷	pharygeal turious - me is set	
	a hard a filder to be Aria Call be a day har har hard to and	
*	Oro phorying las Ca -> Syx (Upprogra, obying ragia, 2013, 19mphacenopoling, receivers)	
>	in hpspharype -> Houseness, dysphongis, reference reaging typessophoryngies raris	
-5	Nasophorynx -> Syx (shoring, on, pristoris, hyposmic, invasion of CN 3-12)	-
L	me is Sec in fossa of Rosen multer	
04	2nd mc rs you blodget in Lymphorna	
	55 gereisian	
TX.	> Certify stages of oropharyngeal and hypopharyngeal -> Radiation	
	Ly lake ~	
	Nasadoriumed, chemoralization except T1 NO MO -> radiation	
	studio and studio localities in subsidio and a sisteria	-
	had like he had the have and the sound ited and all	
_* /	trais Fibroma _ Denirgh 10+ rose proups / age 20-30 junilatural / Inales only.	
	The edona & falls and faits the longer "friends and markends assessing aney go-	6-
	R, Algo analog dissectors , sugart distinge	4
100		

Foreign bodies in otolaryngology:

the most affected by foreign bodies are pediatrics at the age of 1 year; because they develop pincer grip which allows them to hold things and put them in their mouth mentally challenged patients are also at a high risk.

*foreign bodies of the ent are divided according to:
1-site : ear, nose, larynx, pharynx and esophagus
2-size: small. Medium, large
3-consistency: soft, hard, rubbery
4-shape: sharp, smooth surfaces
5-organic or inorganic
6-animate or in-animate

**organic foreign bodies include: anything (عضوي)

rubber, wood, paper, vegetables.

They tend to be more symptomatic and have a higher risk of complications; we need to be more aggressive in treating them than with inorganic.

Inorganic:

the most serious is batteries; because there's probability of leakage of the battery chemicals.

* * animate:

alive.

Insects.

When dealing with insects we should always try to kill it before removing it using mineral oil or alcohol, in order to minimize the complications of its removal.

*after the removal of a foreign body one must reexamine to exclude complications and presence of a second foreign body.

25% of patients who have a foreign body tend to have another one.

*usually there's low threshold to use general anesthesia in pediatrics.

foreign bodies of the ear:

symptoms :

it may be asymptomatic aural fullness conductive hearing loss and tinnitus otalgia bleeding otorrhea as a result of infection

signs:

*inspection:
visualization of the FB
signs of inflammation
auricular and tragal tenderness otitis externa
*percussion negative
*otoscopy:
wax on FB
narrowin of the canal
redness

complications:

1-otitis externa
 2-tympanic membrane perforation
 3-otitis media
 4-bleeding and laceration of the canal

management:

the FB should be removed using forceps, ear syringe, or a hook.

The choice should be made on the nature of the FB, consistency and site.

-a soft FB is removed easier than hard ones.

-ear syringe should be avoided in:
organic FB because they possess hygroscopic features
sharp FB
batteries-leakage of chem.
Large objects lying superficial to the external ear canal isthmus because there is a danger of wedging them in that area.

foreign bodies of the nose:

symptoms:

1-nasal obstruction (sleep apnea and mouth breathing)2-rhinorrhea (mucoid-mucopurulent)3-excoriated skin (unilateral)4-epistaxis5-csf leak6-headache

Signs:

rhinorrhea, mouth breathing, epiphora: hyperlacrimation when the **FB** is on the inferior turbinate septal perforation.

Complications:

1-septal perforation
 2- septal hematoma
 3-epistaxis
 4-laceration
 5-aspiration.
 6-rhinolithisasis

management:

depends also on the nature of FB, size and consistency we can use a hook or Foley's catheter. the FB is removed from above of the (against the floor) to achieve the least tenderness and damage.

Foreign bodies in throat (pharynx)

- One of the common foreign bodies in pharynx is Fish bone , it can stick in any pit (tonsils, base of the tongue, vallecula, pyriform sinus)
- Possible symptoms
 - Dysphagia, odynophagia, sore throat, SOB if big foreign body, bleeding per mouth, otalgia due to referred pain from glossopharyngeal nerve.

- Depending on it site and situation we can decide if it needs local anesthesia, or GA
- One of possible complication is retropharyngeal abscess (causing sore throat, dysphagia, odynophagia, SOB, fever, neck rigidity)
 - Management: local anesthesia and aspirate by a needle, if it was pus then it is abscess, here do an incision and drain it, or we can get a CT scan, or lateral neck soft tissue X ray where I find expanded soft tissue in front of vertebrae
 - Give him a broad spectrum antibiotic
- Other complication include bleeding, infection.

Foreign bodies in larynx

- Symptoms
 - o Dysphonia, stridor, SOB, airway obstruction, hemoptysis, cough
 - We should do direct or indirect laryngoscopy
- Stridor occur in <u>partial obstruction</u>,
- if pt can't speak or take a breath and rapping his hand around his neck he may be having a <u>complete obstruction</u> on the larynx, first ask someone to call 911, then do Heimlich maneuver (stand behind pt, do a fist under xiphesternum, then push upward and backward to increase intra-abdominal pressure to push diaphragm upward so air is compressed to get out of lungs and push the foreign body away)
 - if the pt has partial obstruction DON'T DO Heimlich maneuver, because it may turn into complete obstruction, send him to emergency room
 - if you were alone and couldn't call 911, go to a table corner and push your xiphesternum against it
 - if the pt was infant, but him in a prone position, and hit him on his back , then look at his mouth if you could see the foreign body take it out with your finger
 - if an adult pt entered in a coma after an airway obstruction, you should do cricothyroidectomy (just between thyroid cartilage and cricoid cartilage in the midline) and put any tube you have (cannula, pen, straw...)
 - the layers you cut here are skin, subcutaneous tissue, cricothyroid membrane
 - in tracheostomy the layers are skin, subcutaneous tissue, platysma, strap muscles, thyroid then trachea, <u>so trachea is always deeper than</u> <u>what you think</u>

foreign bodies in esophagus

the normal narrowing sites of the esophagus:

1- upper esophageal sphincter (cricopharengeous)

2-lower esophageal sphincter

3- at the site of crossing of the left main bronchus

4- at the crossing of the aortic arch

The narrowest of them all is: the upper esophageal sphincter

So if the foreign body was smooth and passed the upper esophageal sphincter it will go down

Sometimes the foreign body gets stuck in abnormal spaces (not the narrowing's) like if there is stricture or fibrosis or achalasia or external compression or tumor

We call the foreign body in the esophagus: foreign body ingestion or swallow

We call the foreign body in the airway: foreign body aspiration or inhalation

Possible foreign body in the esophagus:

The most common in adults is bolus of food

The most common in pediatrics is coins

Symptoms:

Dysphagia, retrosternal pain and discomfort, regurgitation, hematemesis, drooling of saliva - because he can't swallow his own saliva

how to diagnose? Esophagoscopy, diagnostic and therapeutic

but if the foreign body was a bolus of food , we encourage the patient to drink fizzy drinks like pepsi or Fanta because they stimulate peristalsis

or we can give the patient benzodiazepines like diazepam because it causes relaxation of the smooth muscles of the esophagus

however, if the foreign body was not food – a needle for example – we don't do that, we go to the esophagoscopy immediately because we don't want this to go down to the stomach unlike the bolus of food

 * there is flexible and rigid esophagoscope , we use the rigid because it gives us more room for working

Possible complications of esophageal foreign bodies:

Esophageal perforation, ulceration, stricture, ...

Perforation: can cause mediastinitis, this is a very lethal and serious disease

So we don't want to come into this stage, so if a patient had esophageal perforation, we should give him prophylactic antibiotics, and put NG tube but under direct vision in order not to enter the perforation itself, to decompress the stomach , and we keep the patient NPO and on TPN and we wait for a week , if the patient developed the signs of mediastinitis like fever, leukocytosis, looking ill , shortness of breath ,....

Sometimes the perforation may heal alone , that's why we go for conservative treatment first and wait, if not , we repair it surgically

Foreign bodies in the tracheobronchial tree:

Foreign body aspiration or inhalation

It is more common to go to the right main bronchus because it is more perpendicular and shorter and wider , this is true if the aspiration or inhalation happened at upright position, i.e.: the person is standing or setting , and this is true after the age of 4

If the patient was in upright position, the foreign body will go to the lower segments of the lung , but if he was in supine position, it will go the posterior segments whether upper or lower lobes

The symptoms are more severe when the foreign body is in the trachea because it causes complete obstruction, unlike the bronchi where there is another one which can compensate

Symptoms:

It may be asymptomatic

SOB, cough, choking, pneumonia, ...

If the foreign body went down to the bronchus, it may cause complete obstruction and this will lead to atelectasis, or maybe it obstruct a whole lobe and lead to collapse and shifting to the ipsilateral side

If it caused partial obstruction, it permits the air to enter and entrap it, emphysema will develop and hyperinflation, and shifting to the contralateral side

Complications: atelectasis, collapse, pneumothorax, hyperinflation, pneumonia,...

If the family of the patient were very sure that the patient aspirated a foreign bod, the diagnostic and therapeutic method is bronchoscopy

Bronchoscopy is also rigid or flexible, we use the rigid , we reach to the secondary bronchi, however, the flexible can reach the tertiary bronchi but the side working channel is small

*** NORMAL CHEST X-RAY DOES NOT RULE OUT FOREIGN BODY ASPIRATION OR INHALATION ***

تعاهدنا على الزمن : الوفاء، الجمال، الوقفة،

تفريغ الراجون رحمة ربهم : يزن عداسي، احمد مطارنة، عبدالله بني ملحم