بسم الله الرحمن الرحيم

ENT notes 2017

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1. High frequency SNHL with unilateral tinnitus in young age group (acoustic neuroma ,vestibuler shwanoma).
2. Bilateral high frequency SNHL in young is ( NIHL)
3. Bilateral high frequency SNHL in older age (presbycusis)
4. Most common benign tumor ( vestibuler shwanoma ) ,

\*\* 1% of sudden hearing loss caused by vestibuler shwanoma BUT 10% of vestibuler shwanoma presented by sudden hearing loss.

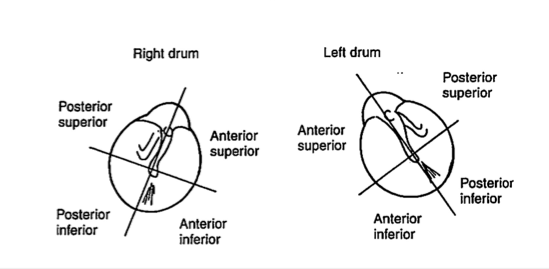
\*\*Vestibuler shwanoma presented 85% by unilateral high frequency progresive SNHL ,65% tinnitus.

\*\*Investigations :CPAngle MRI / tympanometry :type A normal( because it disese of inner ear)/Rinne positive / webers latralise to normal ear .

\*\* The first nerve affected by this tumor is “ trigeminal nerve “. The second one is “ sensory facial nerve (post auricular anesthesia )

\*\* Treatment : Observation .

1. Difference between Rt &Lt tympanic membrane on pictures ( direction of light )



1. Picture of tympanic membrane perforation

Q: treatment : myringoplasty or tympanoplasty



1. Q1: Name the procedure : myringotomy with grommet .

Q2: complication of it : \*infection

\*permenant perforation

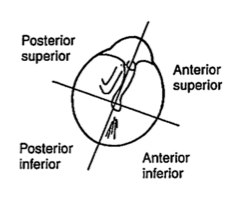
\* bleeding

\* damage to external canal

\* damage to facial nerve



1. Ear drop with antibiotic given only if pus ,discharge from ear.



pressure is high in post. Sup >post.inf>ant.inf>ant.sup.

\*in *middle ear effusion* ,we do myringotmy in ANT.INF Part ( this part is least healing area and pressure ,and we need to keep the perforation open for longer time ).

\*in acute otitis media complication : we drain the pus ANT.INF because the pressure is high in POST.SUP. which prevent pus from drain.

1. Facial palsy or sudden hearing loss ,always give *steroid(* patient should take it from 5:00AM to 7:00AM) .
2. OM with effusion >>may be silent OM (if there is no pain )
3. Adenoid hypertrophy >> the most common cause of OME in children
4. Nasopharyngeal tumor can cause OME , so do X-ray (don`t forget)
5. In OM >> conductive hearing loss
6. Most common cause of chronic cough >> adenoid , while the second cause is >> sinusitis
7. The carotid artery is far from bed of tonsils >> 1.5 cm (for written exam)
8. Defferntial diagnosis of abdominal pain , N+V >> OM
9. In case of severe itching + discharge >> think of otitis externa
10. In case of severe itching + discharge + intact TM >> fungal otomycosis (Aspergelosis)
11. Treatment of this fungal infection >>keep dry , toilet , topical anti-fungal
12. Central TM perforation >> tubotempanic , marginal TM perforation >> atticoantral
13. Cone of light position : in right ear >> 5 o`clock , in left ear >> 7 o`clock
14. Two specific indication for tonsillectomy :

1- recurrent infection 2- sleep apnea

\*\*symptom and indication for tonsillectomy : febrile convulsion

\*\* 70% of tonsillitis >> viral cause

1. ***Facial palsy :***

\*\*upper motor N lesion :wrinkles spared

lower motor N lesion: wrinkles involved

\*\* deviation is to the normal side

\*\*example : Rt upper neuron lesion affect Lt Lower part of face .

\*\* 90% of patient recover without treatment in 3 months .

\*\*most common cause :

1. Bells palsy
2. Ramsay –hunt syndrome :it has vesicles , 63%recovery , caused by>> **Herps Zoster Virus**

Facial palsy +herpes vesicles on auricle

\*\* treatment : steroid

hydration

topical ointment “isoteres”

B- complex injection

Anti viral “acyclovire”

\*\* Common question : terminal branches of facial nerve?? Temporal ,buccal,zygomatic,marginal mandibuler ,cervical .

1. *Neoplasm of nose and sinus :*

\*\* most common in : maxillary sinus 55%

\*\* 1% sphenoid +frontal

\*\*Most common site for Adenocarcinoma is ethmoidal .

\*\* on axial CT of sinus :if unilateral mass in sinus : tumor

If Bilateral : polyps (pale in color)

CT image of sinus is important in OSCE

The mass will be between nasal septum and turbinate in both cases.

\*\*surgery for septal deviation : septoplasty

\*\*best surgery for nasal polyp : Functional Endoscopic Sinus Surgery (FESS)

\*\*adult with OM with effusion we suspect >> nasopharyngeal neoplasm .

1. **ohngren’s**  line (مهم جدا)

Q1- connect what ?medial canthus of eye to

Angle of mandible .

Q2- indicate what ? above =bad prognosis

Below=good prognosis.

1. ***Papilloma***

\*\*most common benign tumor of larynx .

\*\* premalignant /unilateral /originate from lateral wall .

\*\*cause destruction of bone .

\*\*to differentiate it from polyps ( originate from ethmoids / bilateral /opacification on x-ray/ no destruction of bone.

\*\*only antrochoanal polyp from maxillary sinus

1. Angiofibroma

\*\*affect MALE ONLY

\*\*severe epistaxis

\*\* unilateral nasal obstruction

\*\* no biopsy taken .

1. TTT for any sinus tumors(MCQ ):

Surgery or radiation o chemical ? ALL .

1. Tumor investigation :

MRI /CT /Nasal endoscopy /biopsy.

(( all investigation write in exam)).

1. Stridor …(steeple sign )

\*\*treatment steps :

Ensure Airway is patent

Steroid

Nebulizer epinephrine

Oxygenation

Tracheostomy sometime

No need for Antibiotic “ viral” unless there are complications.

1. In case of forign body inhalation , what type of x-ray do you request??

AP and lateral

-Complications include : airway obstruction and perforation of esophagus

1. Retropharyngeal abscess on examination of throat ?

Bulging of posterior pharyngeal wall.

1. Indication of tonsillectomy in peritonsiller abccess ?

(( second attack of **quins**y))

1. Most important symptom for peritonsilar abcess :drooling of saliva+ trismus

\*\* in adult its treated by incision and drainage but in children give antibiotic for 48 hours then incision and drainage

1. Epiglottitis

\*\* thumb sign (مهمه)

\*\*ttt :1- airway

1. third generation cephalosporine
2. Laryngomalacia

\*\* congenital causes .

\*\* bilateral vocal cord palsy

\*\*most common cause of stridor in the neonatal period and early infancy

\*\*6-9 months (حتى يبين stridorعالطفل )

\*\* surgery ( supraglottoplasty)

\*\* Omega sign/shape on inspiration .

\*\* aggravating factor ( supine,flexion of neck, GERD)

\*\*give (antiacide)even if the patient don’t have GERD.

1. Subglottic stenosis

\*\* normal glottis diameter in child 6mm

Borderline 5mm

Stenosis 4mm

Grade 1>> 50% stenosis : no need TTT

Grade 2 >> 50-70% : need TTT.

1. Vocal cord

\*\* RT recurrent laryngeal nerve palsy : adduction to medial side( because cricothyroid muscle not affected). Normal respiration and voice.

\*\* bilateral recurrent laryngeal palsy : adduction +inspiratory stridor .

\*\*unilateral superior and recurrent laryngeal : abduction ,cadaveric paramedian position of left side , Rt side cross medline . Normal respiration and voice

\*\* bilateral superior and recurrent : bilateral ( cadaveric ) , aphonia , normal respiration.

1. Cricothyroid muscle is supplied by superior laryngeal nerve
2. Most important artery for embolization in case of epistaxis >> Sphenopalatine
3. Most important cause for toxic shock syndrome is : nasal packing
4. Cautery is contraindicated in epistaxis when : the bleeding is bilateral , the area is wide and there is infection .
5. Congenital cause for epistaxis >> Heridetary Hemorrhagic Telangiectasia HTT

\*\* treated by : septodermoplasty

1. Topical steroid is given with head down (to avoid the septum ), while the vasoconstrictor is given with head elevated .
2. Types of nasal polyps :

1-Ethmoidal >> bilateral , in adult , benign , in ethmoid sinus , treated by topical and systemic steroids

2-Antrochoanal >> single , unilateral , usually in children , in maxillary sinus , low recurrence

1. Samter`s triad : Nasal polyp + Intrinsic asthma + Aspirin allergy
2. Laryngeal cyst :

DDX: tumor ,polyps .

1. Choanal atresia ( مهمه )

\*\* emergency respiratory distress in infant \*\*

\*\* part of CHARGE syndrome

\*\* on CT complete obstruction of posterior nasal space

1. Recurrenr laryngeal nerve palsy:

Second step after examination : CT from skull base to lung or chest .

1. Hoarsness of the voice ,, when you need to investigate ??? if the hoarsness > 3 weeks .
2. Laryngeal polyps : unilateral >3mm
3. Vocal cord cyst : reactive ( compensatory) lesion on other side .
4. Laryngeal nodule <3 mm , bilateral ,in male child and female adult ,in junction of anterior third and posterior two thirds , mostly seen in teachers and singers .
5. Polypoid cordites (Reinks cordites) :

\*\*TTT : lateral cordotomy

\*\* aka smoker corditis

\*\*bilateral 65%

\*\*mostly old age

1. Most common cause of chronic cough :

Post nasal drip , asthma , GERD بالترتيب

1. Hot potato voice : acute epiglottitis
2. Leukoplakia : DDX: tumor ,fungal infection , papillomatosis .
3. Glottic carcinoma : most common laryngeal CA , good prognosis , early presentation by **Hoarseness** , no lymph drainage , no mets , dysphagia .
4. Granuloma : aka intubational granuloma , hx is important
5. Supraglottic carcinoma : bad prognosis , aggressive , presented by delayed symptom>> **dysphagia** .
6. CA Larynx investigation (( common Q))
7. Nasopharyngeal tumor (مهم)

\*\* most common symptoms :

- 50% unilateral huge neck mass

- 30% nasal symptoms eg : epistaxis

-20% era symptoms :

40- ويكون عنده ممكن يجي صورة tympanic membrane

Secrotory OM :

If adult : 25 years RT SOM

- Rinne‘s: negative

- Audiogram: conductive HL

-Weber‘s : lateralize to Rt ( abnormal ear)

-Investigation : tympano , audiometry ,,CTand MRI to post nasal space

-Examination of post nasal space + biopsy ((fibrooptic endoscope or rigid )) ؛ because we suspect tumor in adult with SOM.

1. Most common cause of SOM in children “ *adenoid* “
2. TTT of nasopharyngeal tumor :

\*\**very sensitive to Radiation*

\*\* grade 1 ,2 = radiation

\*\*grade 3,4 = chemo ,radio ,surgical

1. *Trotters Triad* of naso pharyngeal tumor (( ipsilateral CHL , ipsilateral ear pain + facial pain , ipsilateral paralysis of soft palate.))
2. Most common paranasal sinus malignancy in children < 5 years : Rhabdomyosarcoma
3. Non hodgken lymphoma >> most common >> most aggressive >> chemotherapy
4. Hodgken lymphoma >> less common >> less aggressive >> radiotherapy .
5. The best investigation for sinusitis : CT , and the best for fungal sinusitis :MRI (on CT you will see calcification so request MRI to make sure )
6. Axial CT for congenital anomalies
7. On CT if :

Opacification is complete : chronic sinusitis

Air fluid level : acute sinusitis

Opacification in sinus and nasal cavity and bilateral : polyp

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1. Normal color of nasal mucosa >> pink

\*\* if its pale >> viral infection or allergic rhinitis

\*\* if its red >> bacterial infection

1. Watery rhinorrhea >> allergic or viral

\*\* if chronic >> its allergic

\*\* if acute and short duration >> viral infection

1. Anterior rhinoscopy >> anterior 2/3 of nose

\* posterior rhinoscopy (nasopharyngolaryngeoscopy)>> posterior 1/3 + nasopharynx

1. In case of nasal polyp or severe allergy >> systemic steroid
2. Signs of fungal ear infection >> wet paper appearance + cheesy material
3. [otitis](https://web.facebook.com/hashtag/otitis?source=feed_text&story_id=1495408117184479) external (pruritis , pain , discharge):  
   1- fungal in origin: “wet paper “ appearance + cheese material ,,, rarely cause stenosis of external ear canal ,,, Tx by antifungal locally at least 3 weeks .  
   2- bacterial: may cause stenosis need Aural toilet “antibiotic + ear drop”  
   3- Malignant otitis external: Admission + IV antibiotic + surgical debridement .  
   [#If](https://web.facebook.com/hashtag/if?source=feed_text&story_id=1495408117184479) ear wax is smooth: Suction , syringing direction ->>posteriorly superiorly .  
   [#contraindication](https://web.facebook.com/hashtag/contraindication?source=feed_text&story_id=1495408117184479) of syringing and cold caloric test :  
   1- OM 2- otitis external 3- tympanic membrane perforation .4- organic fb
4. Case : A 3-year-old child came to ER complaining of unilateral , foul smelling , nasal discharge since 2 weeks , what is the most likely diagnosis ( what diagnosis you should rule out )?

\*\*answer >> foreign body

1. Case : A 15-year-old male patient complains of severe recurrent unilateral epistaxis , with nasal obstruction what is the most likely diagnosis ( what diagnosis you should rule out )?

\*\*answer >> Juvenile nasopharyngeal angiofibroma

* **Management of nasal trauma : (hx of falling down on face ) >>**

1-ensure airway is patent

2- give adequate ventilation

3- stabilize patient

4-If its open wound and contaminated with foreign matter, copious **irrigation** will be required or sometimes, Some **debridement** may be needed

5-pretreatment with anxiolytic and pain medications should be considered

6- lateral nasal bone X ray .

7-Reduction of acute nasal fractures (open or closed)  to realign cartilaginous and bony structures to their locations before the injury, to decrease discomfort and maximize airway patency

8-do incision (horizontal )and drainage+ I.V antibiotic if there is septal hematoma+ bilateral swelling (to prevent septal abccess and septal perforation )

9-final external and internal (endoscopic, if possible) examination before releasing a patient who has undergone manipulation and reduction of a nasal fracture

10-prophylactic antibiotics may be prescribed when indicated, such as in a grossly contaminated open fracture

11-an external splint or cast should be applied to the nasal dorsum for about one week.

12-nasal packing if required

**\*\*Done by :**

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