ENT and Dental common problems



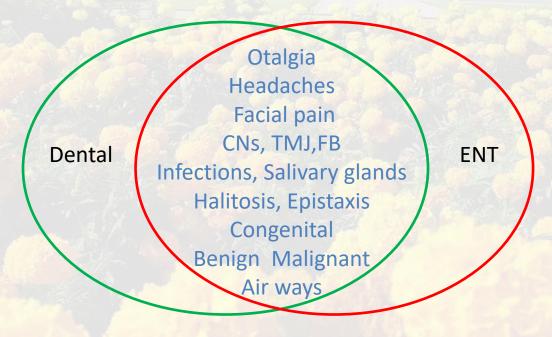
21/04/2020

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Introcduction

 There are many dental disorders and diseases can present to ENT Doctor and the vice versa is correct





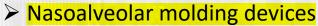


Pre surgical







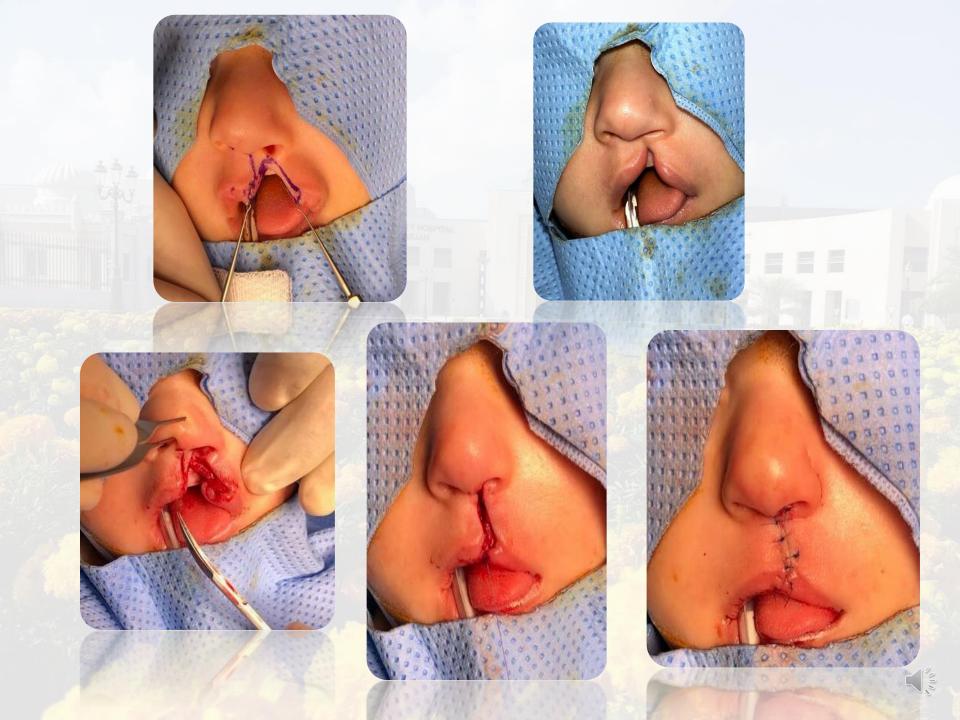


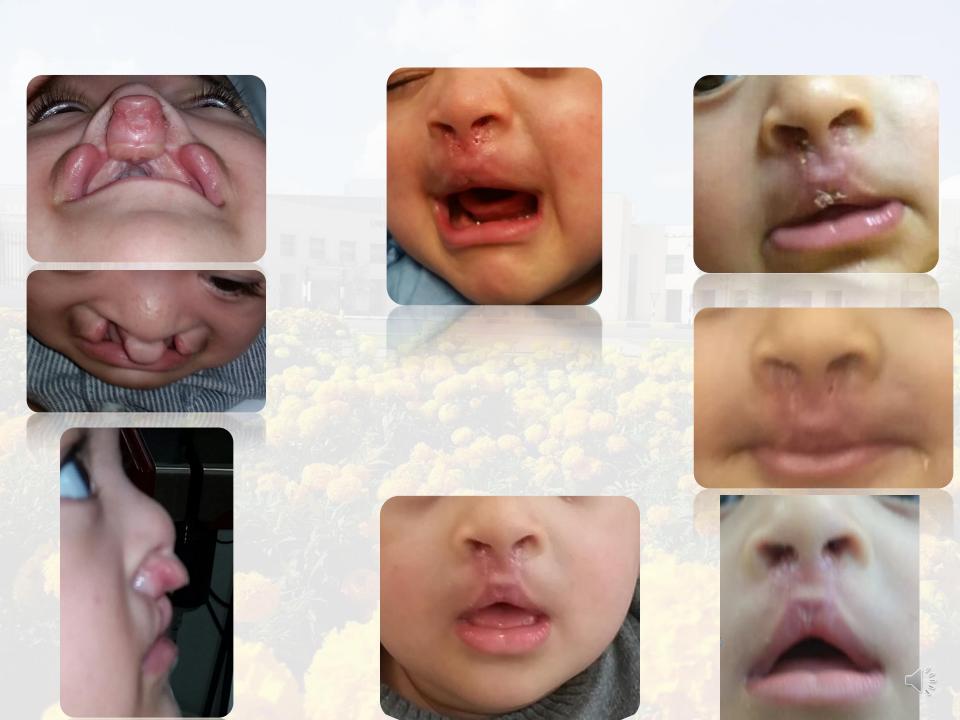
- Custom made devices which utilize wiring and nasal stenting to mold the nasal cartilage, premaxilla, and alveolar ridge
- Nasal stenting can be elongated and adjusted to lengthen the columella and mold the nasal cartilage. Takes advantage of the malleability of nasal cartilages.

















ENT symptoms caused by dental problems

Ear ache

- Otalgia: TMJ dysfunction, Toothache, oral ulcers
- Facial pain
- Headaches
- CNs,
- FBs
- Snoring: malocclusion, small lower jaw,
- Halitosis, dental decay, oro-antral fistula

Reactive Lymph Nodes

- Neck lumps and facial swellings: reactive LN f
- Nasal discharge
- Epistaxis Nose bleeding
- Salivary glands disorders.
- Stridor صرير
- Head& Neck congenital abnormalities



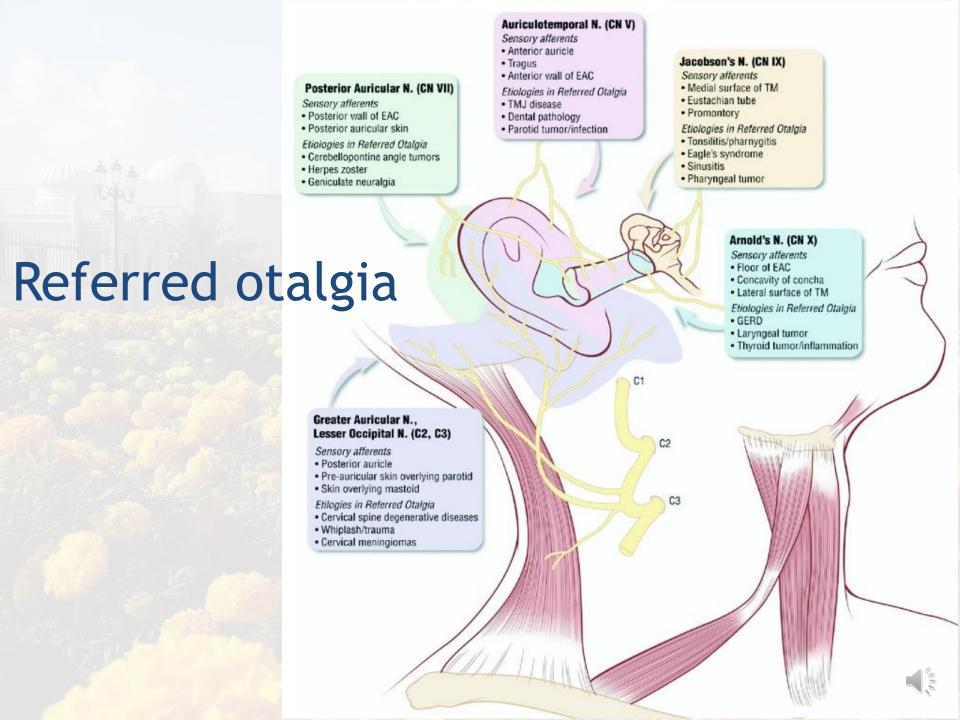
Otalgia

- Definition:
- Pain in the ear
- Classification:
- A. Primary otalgia:
- The origin of pain is in the ear.
- B. Referred (secondary) otalgia:

The origin of pain is outside the ear and is referred to the ear

- along the following nerves:
- 1. Trigeminal nerve (V).
- 2. Facial nerve (VII).
- 3. Glossopharyngeal nerve (IX).
- 4. Vagus nerve (X).
- 5. Posterior roots of C2 and C3.

5, 7, 9, 10, P.C2, P.C3



Prevalence

- It is often stated that 50 percent of pain in the ear is secondary otalgia
 - 50 % of secondary otalgia results from dental causes
- In a study of 500 patients visiting ENT clinic
 - 58% presented with primary otalgia
 - 28% with secondary otalgia
- In another study of 615 patients with secondary otalgia
 - dental (38 %)
 - temporomandibular joint (TMJ) disorders (35 %)
 - cervical spinedisorders (8 %)
 - neuralgias (5 %).
- The causes of otalgia in children are similar to those in adults, although middle ear disease (especially acute otitis media) is more common
 in children?



Primary otalgia

- 1. Trauma to the ear.
- 2. Otitis External (commonest cause in adults).
- 3. Otitis media (commonest cause in children).
- 4. Eustachian tube obstruction,
- 4. PNS Cancer

Secondary otalgia

- A. Trigeminal nerve:
- 1. Malocclusion.
- 2. Impacted wisdom tooth.
- 3. Dental caries.
- 4. Dental infection.
- 5. TMJ arthritis.
- 6. Acute sinusitis.

B. Facial nerve:

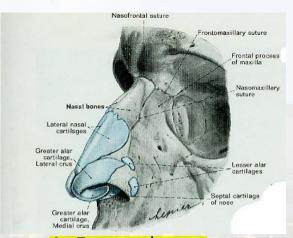
- Herpes zoster of the geniculate ganglion (Ramsay
- Hunt syndrome).

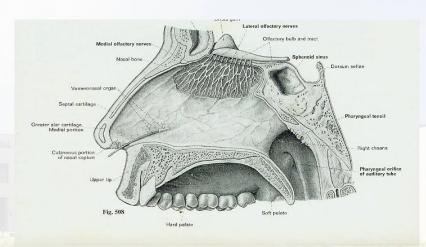
C. Glossopharyngeal nerve:

- 1. Acute tonsillitis.
- 2. Peritonsillar abscess.
- 3. Glossopharyngeal neuralgia

- D. Vagus nerve (X):
- Ulcers of the larynx e.g. tuberculosis.
- E. C2 and C3:
- 1. Cervical disc lesions.
- 2. Cervical osteoarthritis

Anatomy of the Nose

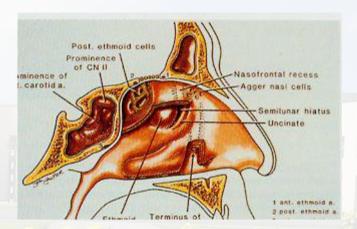




- A. External nose.
- B. Nasal Cavity:
- 2 nasal cavities separated by the nasal septum.
- Each nasal cavity communicates with the outside through the
- anterior nasal opening (nares or nostrils), and with the
- nasopharynx through the posterior nasal opening (choana).
- Each cavity is composed of:
- 1. Vestibule: lined by squamous epithelium with short hairs
- (vibrissae).
- 2. Respiratory part: lined by respiratory mucosa.
- 3. Olfactory part: line by olfactory mucosa.

Lateral wall of the Nose





- The lateral wall of the nose carries 3 turbinates: superior, middle
- and inferior.
- Underneath each turbinate is a meatus:
- 1. Superior meatus: receives ostia of posterior ethmoid sinus.
- 2. Middle meatus: receives ostia of maxillary, anterior ethmoid, and
- frontal sinuses.
- 3. Inferior meatus: receives the nasolacrimal duct.
- 4. The Spheno-ethmoidal recess is the space above the superior turbinate.
- It receives the ostium of the sphenoid sinus.

Anatomy of the Paranasal Sinuses

4 pairs of sinuses.

- 1. Maxillary:
- Largest sinus.
- Opens into the middle meatus.
- Closely related to the upper premolar, and first and second
- molar teeth.
- · 2. Frontal:
- Opens into the middle meatus.
- 3. Ethmoid:
- 1. Anterior ethmoid:
- Opens into the middle meatus.
- 2. Posterior ethmoid:
- Opens into the superior meatus.
- 4. Sphenoid:
- Opens into the Spheno-ethmoidal recess

Facial Pain

- Neural pain.:
- Primary neuralgia:
- a. Typical:
- 1. Trigeminal neuralgia.
- 2. Glossopharyngeal neuralgia.
- b. Atypical facial neuralgia.
- Secondary:
- 1. Central neuralgia.
- 2. Post herpetic neuralgia

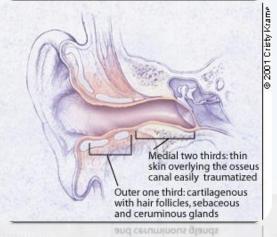
Dental pain

- 1.Impacted wisdom.
- 2.Dental infection.
- 3.Dental extraction.
- Facial pain of ENT origin:
- 1.External otitis.
- 2. Acute sinusitis.
- Temporomandibular pain.



- Impacted wisdom tooth is an important
- cause of unexplained pain in the ear.





Facial pain of ENT origin

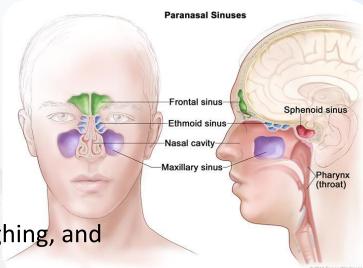
A. Otitis Externa

- Inflammatory conditions of the external ear canal.
- The pain may be severe and throbbing. The
- characteristically increases with jaw
 - movements
- and with pressure on the tragus



B. Acute sinusitis:

- Pain is a constant feature of acute sinusitis.
- The pain typically increases on straining, coughing, and
- bending down.
- Maxillary pain is over the cheek and may radiates to the
- upper teeth especially on bending and coughing.
- Ethmoid pain is between the eyes and over the bridge of the
- nose.
- Frontal pain is over the forehead and is usually associated
- with generalized headache. It commonly shows morning
- periodicity (vacuum effect).
- Sphenoid pain is usually deep seated behind the eyes, and is associated with occipital or vertical headache



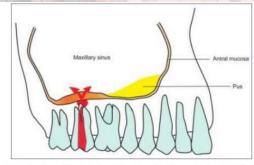
Atypical Facial Neuralgia

- An important cause of unnecessary dental
- extractions.
- Middle aged females.
- Frequently there is a psychological factor.
- Characterized by recurrent pain over the
- cheek and teeth.
- May be bilateral.

Epistaxis

- Bleeding from the nose.
- Dental causes: T.M.O.D.T
- 1. Traumatic dental extractions.
- 2. Maxillofacial trauma.
- 3. Oro-antral fistula.
- 4. Dental maxillary sinusitis.
- 5. Tumours of dental origin





Multiplication of bacteria invading from the focus of a dental infection results in odontogenic maxillary sinusitis.



Treatment:

Control of bleeding:

- 1. Pinching of the nose.
- 2. Packs of cotton soaked with adrenaline or decongestant nasal drops
- hypertensives).
- 3. Nasal cautery AgNO3, Bipolar.

- 2. Nasal packs.
- 3. Cautery.
- 2. General measures:
- Treatment of shock, and
- coagulants.
- 3. Treatment of the cause.
- 4. Arterial ligation or clipping for selected patients.

Acute Maxillary Sinusitis

- • Etiology:
- 1. Rhinogenic (80%).
- 2. Dental (10%):
- 1. Apical abscess of the upper
- second premolar, first and
- second molar teeth.
- 2. Faulty extraction (oroantral
- fistula).
- 3. Traumatic e.g. Foreignbodies.





Symptoms

- A. Acute maxillary sinusitis:
- 1. Fever, malaise, and headache.
- 2. Pain and tenderness over the cheek. The pain
- radiates to the teeth on bending down, and
- increases on straining and coughing.
- 3. Nasal obstruction.
- 4. Mucopurulent nasal and postnasal discharge.
- In dental infection the discharge is characteristically unilateral and malodorous due to the anaerobic dental organisms.

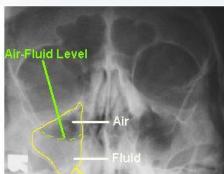
Chronic Maxillary Sinusitis

- 1. Nasal and postnasal mucopurulent discharge.
- 2. Nasal obstruction.
- 3. Sense of heaviness or recurrent pain over the cheek.
- 4. Headache.

Investigations:

- 1. Plain radiography:
- Occipitomental view
- with open mouth.
- - Of limited value.
- 2. CT scans:
- Coronal and axial.
- The best and standard
- technique.

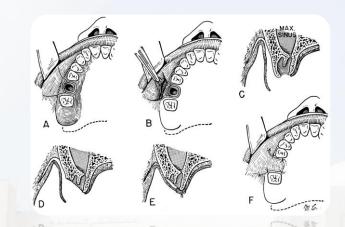


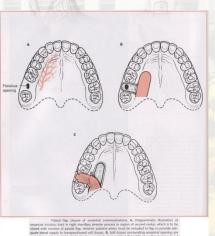




Treatment

- A. Acute sinusitis:
- 1. Antibiotics.
- 2. Nasal decongestants (local and systemic).
- 3. Antipyretic analgesics.
- 4. Steam inhalations
- B. Chronic sinusitis:
- 1. Medical treatment:
- Antibiotics, anti-allergics, nasal washes.
- 2. Surgical treatment:
- Appropriate sinus procedure. Endoscopic sinus
- procedures are now the standard procedures





CaldWell Luc Operation

- Also called "Sublabial"
- antrostomy"
- Indications:
- 1. Foreign bodies in
- maxillary sinus.
- 2. As a route to the
- pterygopalatine fossa.
- 3. Insertion of submucosal
- implants.
- 4. Selected cases of maxillary
- cysts and tumours.





Complications:

- 1. Sublabial oro-antral fistula.
- 2. Trauma to the root of the teeth or their nerve and blood supply (devitalization of teeth).
- 3. Infraorbital neuralgia (trauma to the
- infraorbital nerve).

Oro-Antral Fistula

- Definition: Fistula between the
- oral cavity and the maxillary
- sinus or antrum.
- Types:
- 1. Alveolar:
- The commonest type. It usually
- follows traumatic dental extraction.
- 2. Sublabial:
- This may arise as a complication of
- CaldWell- Luc operation.
- 3. Palatal:
- 1. Syphilis.
- 2. Malignancy.
- 3. Following a maxillectomy operation



Clinical picture of alveolar fistula:

- 1. Mild epistaxis at the time of extraction.
- 2. Escape of fluid or food from the nose.
- 3. Escape of air from the fistula on blowing the nose.
- 4. Unilateral nasal discharge with bad odour.
- 5. Pain over the cheek.
- 6. A probe may be passed through the fistula.
- Investigations:
- 1. Plain X-Rays (occipitomental) +/- probe.
- 2. CT scans









Treatment

- 1. Recent fistula:
- Primary closure.
- 2. Old fistula:
- 1. Small:
- Suturing after freshening of the edges of the fistula.
- · 2. Large:
- 1. Clearing infection from the maxillary sinus by repeated
- punctures or endoscopically.
- 2. Closure of the fistula by a buccal or palatal flap +/- bone
- graft:
- The palatal flap is thicker and has better blood
- supply, but is more traumatic.
- The buccal flap is easier, but is thin and may
- obliterate the buccogingival sulcus.

Ectopic Teeth

- Causes:
- Congenital.
- - Traumatic.
- May cause a rhinolith.
- Clinical picture:
- Unilateral nasal obstruction.
- Unilateral nasal discharge.
- Treatment: Removal.

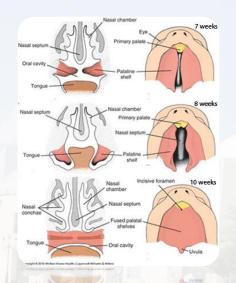


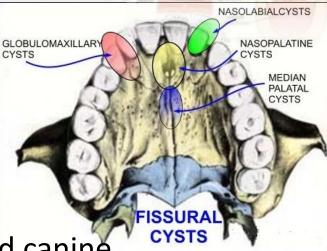


Cysts of the Maxilla

Congenital:

- A. Medial:
- 1. Median alveolar:
- Between the upper central incisors.
- 2. Median palatal:
- Between the palatine processes
- of the developing maxilla.
- 3. Nasopalatine:
- Related to the incisive canal.
- B. Lateral:
- 1. Lateral alveolar.
- Between the upper lateral incisor and canine.
- 2. Naso-alveolar:
- In the lateral half of the floor of the nose.







2. Dental



- 1. Follicular: Primordial or dentigerous:
- In relation to un-erupted tooth.
- 2. Dental (Radicular): Most common cyst:
- In relation to infected tooth.
- 3. Mucoceles:
- Cystic expansion of a paranasal sinus.
- 4. Hemorrhagic bone cysts (Post traumatic or
- post-extraction).







Benign tumors

• Osteoma:

- Commonest benign
- tumor.
- May be asymptomatic
- or may cause deformity
- or proptosis.
- X-rays are diagnostic.
- Treatment by excision.
- Fibrous dysplasia:
- Slowly growing bony
- swelling of the cheek
- in young adults (more
- common in females).







Locally Malignant tumors

- Osteoclastoma:
- Young patients.
- Most common in maxilla.
- Reddish fleshy mass expanding the maxilla.
- False capsule.
- May be eggshell crackling.
- X-ray shows soap-bubble appearance (do not
- fill with dye).
- Treatment by excision.

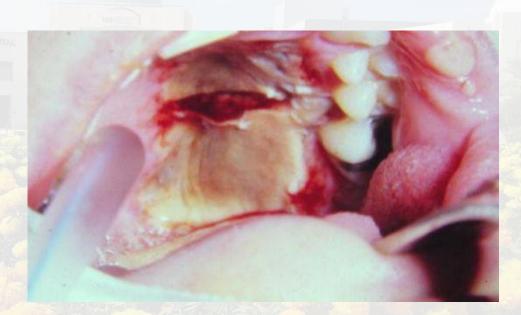




Locally Malignant tumors

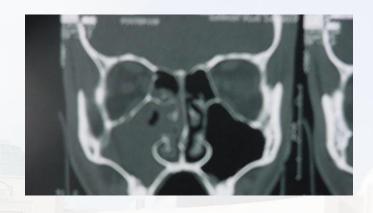
Adamantinoma:

- Females, above forty.
- From epithelial cell nest of
- Malassez (primitive enamel
- organ).
- More common in maxilla.
- Swelling of the maxilla
- involving the alveolus and
- palate more then the cheek.
- Loosened teeth.
- X-Rays show honey-comb
- appearance, fill with dye.
- Treatment by Excision.



Maxillary Carcinoma

- Most common malignant tumour.
- Males.
- Squamous cell carcinoma.
- Maxillary sinus is one of the sites of occult primaries in head and neck.
- Clinical picture:
- Unilateral nasal obstruction, discharg
- Swelling of the face.
- Proptosis.
- Loosened teeth.
- CT scans and MRI are important.
- Treatment: combined surgical excision, radiotherapy, and may be chemotherapy.



Pharynx

- Halitosis
- Offensive breath. Causes:
- Oral: Caries. Dental infections.
- Poor oral hygiene.
- - Extra-oral:
- Sinuses:
- Dental maxillary sinusitis.
- Chronic sinusitis.
- Tonsils:
- Chronic tonsillitis.
- GIT:
- Dyspepsia and maldigestion.
- GERD.
- Colonic problems: diarrhoea, constipation.
- Tracheo-bronchial tree: Bronchiectasis

Trismus

- Limitation of Jaw opening.
- Causes:
- 1. Dental infections.
- 2. Impacted wisdom.
- 3. Suppuration around the pharynx (peritonsillar and parapharyngeal).
- 4. Otitis Externa.
- 5. Tumours.
- 6. Tetanus.

Adenoids

- • 3-7 years.
- Bilateral nasal obstruction causing adenoid facies:
- 1. Open mouth and thick dry lips.
- 2. Hitched-up upper lips.
- 3. Protruding incisors, faulty bite, caries.
- 4. Receding chin.
- 5. High arched palate.
- 6. Flat nasolabial folds (expressionless face).
- 7. Mucoid or mucopurulent nasal discharge.
- 8. Inactive ala nasi.
- Investigations: X-Rays lateral skull view.
- Treatment: Adenoidectomy.

Adenoids







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Acute tonsillitis

- Mainly viral,
- Catarrhal or follicular.
- Beta haemolytic streptococci.
- Clinical picture:
- 1. Fever.
- 2. Sore Throat (pain may be referred to the ear).
- 3. Dysphagia.
- 4. Coated tongue.
- 5. Halitosis.
- 6. Congested tonsils (catarrhal) which may be studded
- with yellowish spots (follicular). May be false membrane.
- 7. Enlarged tender jugulo-digastric lymph nodes

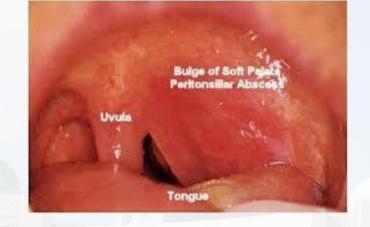
Acute tonsillitis

- • D.D :
- other causes of sore throat.
- - Diphtheria (true membrane).
- Complications:
- 1. Peritonsillar abscess (quinzy).
- 2. Otitis media.
- 3. Autoimmune:
- Rheumatic fever.
- Acute glomerulonephritis.
- Treatment: antibiotics, gargles, antipyretics.

Vincent's angina (Trench Fever)

- Caused by Vincent's spirochaetes and fusiform bacilli.
- Low grade fever.
- Halitosis.
- Ulcers over gums, palate, and tonsils. The ulcers are deep and covered with grey sloughs that can be removed easily (false membrane).
- Treatment: penicillin.

Peritonsillar Abscess (Quinzy)



- Pus collection between the capsule of the
- tonsil and its bed (superior constrictor
- muscle).
- Types:
- Superior (98%): In the soft palate. Follows
- AFT.
- Lateral (2%): Dental origin (Lower wisdom).

Clinical picture

. Symptoms

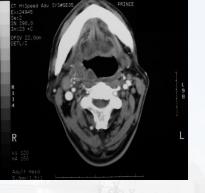
- 1. Throat pain (more severe on one side).
- 2. Dysphagia.
- 3. Halitosis.
- 4. Trismus.
- 5. Otalgia.
- 6. Fever.

Signs:

- 1. Tonsils are congested and pushed medially.
- 2. Soft swelling above and lateral to the tonsils.
- 3. Edematous uvula.
- 4. Torticollis.
- 5. Enlarged tender JD lymph nodes.
- 6. Coated tongue.

Complications:

- 1. Parapharyngeal abscess.
- 2. Laryngeal oedema and stridor.
- 3. Septicemia.
- Treatment:
- Pre-suppurative stage (cellulitis): antibiotics,
- gargles.
- Suppurative: Drainage, antibiotics , +/-
- tonsillectomy after one month



Parapharyngeal abscess



- Suppuration in the parapharyngeal space.
- Etiology:
- 1. Dental infections.2. Quinzy.3. Trauma.
- Clinical picture:
- Symptoms:
- 1. Throat pain.
- 2.Neck pain.
- 3.Dysphagia.
- 4. Fever and malaise.
- Signs:
- 1. The tonsil and pharyngeal wall are pushed medially.
- 2. Tender soft neck swelling.
- 3. Trismus.
- 4. Torticollis.

Complications:

- 1. Laryngeal edema.
- 2. Spread of infection to other neck spaces and mediastinum.
- 3. Jugular vein thrombosis.
- Treatment:
- 1. External drainage.
- 2. Antibiotics.

Retropharyngeal Abscess

Acute

- Infants and children.
- Clinical picture
- 1. Difficult feeding and breathing.
- 2. Chocking.
- 3. Croupy cough.
- 4. Cystic hyperemic swelling to one side of the midline.
- X-rays: Widened retropharyngeal space.
- Complications:
- 1. Stridor.
- 2. Rupture.
- Treatment:
- 1. Drainage (Trendlenburg position).
- 2. Antibiotics.

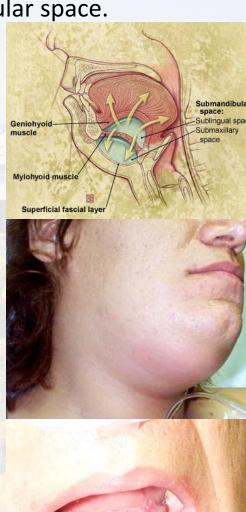


Retropharyngeal Abscess Chronic

- - Adults.
- Cervical T.B. infection (Pott's disease).
- Clinical picture:
- 1. Dysphagia.
- 2. Chocking.
- 3. Painful cervical spine.
- 4. Soft cystic swelling in the midline.
- X-Rays is diagnostic.
- Treatment: External drainage, anti TB drugs.

Ludwig's Angina

- Cellulitis of the floor of the mouth and the submandibular space.
- • Etiology:
- 1. Dental infections.
- 2. Trauma.
- Bacteriology: Anaerobic organisms, Staph.
- Clinical picture:
- 1. Fever.
- 2. Dysphagia.
- 3. May be stridor.
- 4. Firm tender swelling in the floor of mouth and submandibular region.
- 5. Tongue is edematous and is pushed
- upwardsand backwards.
- Complications: suffocation.
- Treatment:
- 1. Drainage.
- 2. Antibiotics.
- 3. May be tracheostomy.



Salivary glands disorders

- Parotid, SMG, Sunligual Galnds
- Infections: Acute, Bacterial, Viral, Chronic, Fungal, TB,
- Inflammatory Auto immune diseases.
- Stones
- Benign and Malignant tumours

Stridor

- Difficult noisy breathing due to partial
- obstruction of the upper airway.
- • Classification:
- a) Inspiratory: Laryngeal obstruction.
- b) Expiratory: Bronchial obstruction (asthma).
- c) Mixed: Tracheal obstruction.

Dental causes of stridor

- I. Trauma:
- 1. Inhalation of denture or tooth.
- 2. Maxillofacial injuries.
- II. Inflammation:
- 1. Ludwig's angina.
- 2. Deep infections of the neck.
- III. Tumours:
- 1. Tongue.
- 2. Hypopharynx.
- IV. Laryngeal oedema:
- 1. Vincent's angina.
- 2. Allergy and idiosyncrasy.
- V. Anaesthetic problems.

Degrees of stridor

I. Mild stridor:

- 1. Noisy breathing.
- 2. No dyspnea.
- 3. Suprasternal and supraclavicular retractions.

II. Moderate stridor:

- 1. Moderate dyspnea.
- 2. Suprasternal, supraclavicular, and intercostal retractions.

III. Severe stridor:

- 1. Severe dyspnea.
- 2. Tachycardia, tachypnea, and sweating.
- 3. Cyanosis.
- 4. Epigastric retractions.
- 5. If untreated the patient develops respiratory failure and calm
- down. Death eventually occurs.

Treatment of stridor

Mild and moderate:

- 1. Corticosteroids.
- 2. Wet Oxygen.
- 3. I.V. fluids.
- 4. Antibiotics.
- 5. Close observation.

Severe and progressive stridor:

- 1. Tracheostomy (tracheotomy).
- 2. Endotracheal intubation

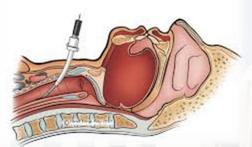
Foreign Bodies

- May lodge in the subglottic region (may be fatal) or right
- main bronchus (most common).
- Clinical picture:
- 1. Stridor.
- 2. Cough.
- 3. Blood stained expectoration
- 4. Localized wheezes.
- Investigations:
- 1. X-rays.
- 2. Endoscopy.
- Treatment:
- 1. Bronchoscopy and removal.
- 2. May be tracheostomy.
- 3. May be thoracotomy.



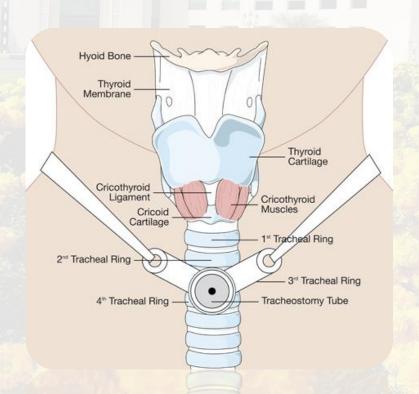
Tracheostomy (Tracheotomy)

- Cricothyrotomy: opening in the
- cricopthyroid membrane.
- Tracheostomy: Opening in the trachea.
- Indications:
- 1. Severe stridor.
- 2. Progressive stridor.
- 3. Non-obstructive indications as respiratory
- failure and secretory obstruct



Levels

- I. High: 1st and 2nd tracheal rings.
- II. Middle: 3rd and 4th tracheal rings.
- III. Low: 5th and 6th tracheal rings.
- Complications:
- A. During operation:
- 1. Hemorrhage.
- 2. Apnea.
- 3. Cardiac arrest.
- 4. TE fistula.
- 5. Pneumothorax.



B. Early postoperative

- 1. Surgical emphysema.
- 2. Obstructed tube.
- 3. Dislodged tube.
- 4. Wound infection.
- 5. Chest infection.
- 6. Atelectasis.

C. Late postoperative

- •
- 1. Tracheal stenosis.
- 2. Rupture of innominate vessels.
- 3. Failed decannulation.
- 4. TE fistula.
- 5. Contracted neck scar.

Others

- H&N Injuries and Fractures of facial bones & Jaw
- H&N Congenital disorders Cleft lip and cleft Palate,
- H& N post-op reconstruction and P. obturator
- MAD and Snoring tongue base suspension with jaw
- Dental clearance pre-radiotherapy.
- Dental Complications post ENT procedures.

Conclusion

There is a huge overlapping between ENT and dental pathology we might need to have joined clinics to discuss such cases like routine MDT meetings for H&N cancer with other discipline like plastic surgeon, Macmillan nurse, SALT, oncologist, Radiologist

