

Disease	Presentation	Findings	Dx.	Rx.
Laryngomalacia Most common cause of stridor in neonate and infants, 2nd is Bilateral vocal cord paralysis and 3rd subglottic stenosis	<ul style="list-style-type: none"> ○ Intermittent inspiratory stridor that improve in prone position, Worse with crying, feeding and RTI. ○ Snoring. peak at 2-4 months, subside at 12-18 months	Laryngeal finding: <ul style="list-style-type: none"> ○ Inward collapse of short aryepiglottic fold and epiglottis into laryngeal inlet during inspiration ○ Omega shaped epiglottis 	<ul style="list-style-type: none"> ○ HX ○ flexible fiberoptic endoscopy ○ it can't be diagnosed in the OR when the patient is sedated 	<ul style="list-style-type: none"> ○ Observation (most of the time the condition will improve) ○ Supraglottoplasty (signs of growth retardation, signs of airway obstruction like: cyanosis, sleep apnea, and desaturation). ○ Tracheostomy (last resort)
Subglottic stenosis Incomplete recanalization, small cricoid ring (<4mm) Cause: prolonged intubation (> 2 weeks) is more common than congenital.	<ul style="list-style-type: none"> ○ Biphasic stridor ○ Failure to thrive. ○ Recurrent croup. ● Dyspnea ● Hoarseness ● Brassy Cough ● Recurrent pneumonitis ● Cyanosis 	<ul style="list-style-type: none"> ● Grades (Cotton-Myer grading system): I: < 50% II: 50% - 70% III: 70%- 99% IV: undetectable lumen. 	<ul style="list-style-type: none"> ○ Chest and neck X-ray ○ flexible endoscope ○ Bronchoscopy ○ Video-strobolaryngoscopy 	Grade 1-2 Observation Endoscope (CO2 laser excision or balloon dilation) Grade 3-4 - Tracheostomy. - LTR (Laryngotracheal reconstruction) - CTR (Cricotracheal Resection). (Ant cricoid split)
Laryngeal web (vocal cord web) <ul style="list-style-type: none"> ● Incomplete canalization. 	<ul style="list-style-type: none"> ○ Weak cry at birth ○ Dysphonia ○ Variable degrees of respiratory obstruction ○ On and off stridor (Posterior laryngeal web) 		<ul style="list-style-type: none"> ○ Flexible endoscope 	<ul style="list-style-type: none"> ○ Observation ○ Laser excision ○ Open procedure (flap and steroid injection) ○ tracheostomy
Subglottic hemangioma <ul style="list-style-type: none"> ● The most common congenital pediatric tumor, and it is most common in subglottic space. 	<ul style="list-style-type: none"> ○ Biphasic stridor ● 50% associated with cutaneous involvement. 		<ul style="list-style-type: none"> ○ Flexible endoscope 	<ul style="list-style-type: none"> ○ Observation (<u>Capillary type typically resolve</u>) ○ Intralesional steroid (old). ○ Propranolol ○ CO2 Laser ablation.
Traumatic Conditions of the Larynx: blows, Penetration, Burns, Inhalation foreign bodies, Intubations injuries.	<ul style="list-style-type: none"> ● Inhalation → sloughing and carbonized tissue ● Acute episode of Foreign Body Aspiration: choking, gagging, wheezing, or hoarseness. 	Granuloma, Common with intubation or reflux (on the posterior third of the vocal fold) most commonly unilateral: necrosis. bilateral: adhesions. <ul style="list-style-type: none"> ●Abrasion (injury to the mucosa) → granulomatous formation → subglottic stenosis. 	<ul style="list-style-type: none"> ○ Medical Hx. ○ Radiography ○ Bronchoscopy (Dx and Rx of FB aspiration) 	<ul style="list-style-type: none"> ○ Intubation (thermal injury) ○ steroids ○ antibiotics ○ Anti-Reflux Drugs ○ Voice rest (granuloma Usually isn't removed due to high recurrence) ○ Endoscopic removal. ○ Lifestyle modifications

<p>Vocal cord paralysis</p> <p>Congenital Acquired: forceps delivery, cardiac surgery “Patent ductus arteriosus repair”, mediastinal or neck surgery, tracheo-esophageal fistula repair.</p>	<ul style="list-style-type: none"> ○ Inspiratory stridor (bilateral) ○ Dysphonia (unilateral) – breathy voice. ○ Choking in recurrent laryngeal nerve injury. 	<p>Bilateral Vocal Cords Paralysis “Abducted type”</p>	<p>MRI of the brain to check for Arnold Chiari Malformation (congenital VC paralysis)</p>	<ul style="list-style-type: none"> ▪ Tracheostomy in severe cases. ▪ Spontaneous recovery. ▪ Surgical intervention postponed until the patient become old: <ul style="list-style-type: none"> ○ Lateralization (stridor): Arytenoidectomy and laser cordotomy. ○ Medialization (dysphonia): VC injections
<p>Acute Laryngitis (glottic)</p>	<ul style="list-style-type: none"> ● Dysphonia ● Fever ● Barking cough due vocal cord edema. 	<ul style="list-style-type: none"> ● Rhinovirus ● Parainfluenza 		<ul style="list-style-type: none"> ● Conservative ● steroids
<p>Acute Epiglottitis (supraglottic)</p>	<ul style="list-style-type: none"> ● Dysphonia (HOT POTATO) ● Fever ● No cough ● Drooling ● Dyspnea / stridor ● Sniffing position ● Dysphagia ● Sore throat 	<p>Haemophilus influenza B (2-6 year). (rare nowadays due to vaccinations).</p>	<ul style="list-style-type: none"> ● Direct visualization using laryngoscopy after stabilizing the patient. ● Lateral neck soft-tissue x-ray (epiglottic swelling: Thumbprint sign, vallecula sign) 	<ul style="list-style-type: none"> ● Intubate in the OR. ● IV Antibiotics. ● steroids
<p>Croup (Laryngo-tracheobronchitis) (subglottic)</p>	<ul style="list-style-type: none"> ● Hoarseness ● Biphasic stridor ● Fever ● Brassy cough (Barking) ● No Dysphagia 	<p>Parainfluenza (1-5 years)</p>	<ul style="list-style-type: none"> ● clinical diagnosis ● X-ray (subglottic narrowing: Steeple sign) 	<ul style="list-style-type: none"> ● Humidified O2. ● Nebulized Racemic Epinephrine ● Steroids
<p>Diphtheric Pharyngitis and Laryngitis</p>	<ul style="list-style-type: none"> ● Sore throat. ● Dysphonia. ● Cough. ● Stridor (suggests the spread of the membrane to the larynx and trachea), ● Fever. 	<ul style="list-style-type: none"> ● <i>Corynebacterium diphtheriae</i> (rare nowadays due to vaccinations) 	<ul style="list-style-type: none"> ● Greyish –white friable membrane. →Culture <p>Complications:</p> <ul style="list-style-type: none"> ● Myocarditis. ● Nephritis. ● Airway obstruction 	<ul style="list-style-type: none"> ● Antitoxin injection. ● Systemic penicillin. ● Oxygen. ● Tracheostomy.
<p>Moniliasis - Fungal Laryngitis (Immunocompromised).</p>	<ul style="list-style-type: none"> ● Dysphonia. ● Cough. ● Odynophagia. 	<ul style="list-style-type: none"> ● Candidiasis, aspergillosis 		<p>Antifungal (nystatin)</p>

<p>Recurrent Respiratory Papillomatosis (IMP) Two types: juvenile and senile. ● 2/3 before age 15 (juvenile). "very aggressive".</p>	<ul style="list-style-type: none"> ● Hoarseness ● Stridor ● Choking episodes. ● Foreign body sensation in the throat. ● Cough. ● Dyspnea. ● Inspiratory wheeze. 	<ul style="list-style-type: none"> ● HPV 6-11 (common). ● HPV 16-18 (malignancy) - rare. 	<p>Laryngoscopy or bronchoscopy.</p> <p>Risks: Young first time mother, condyloma acuminata</p>	<ul style="list-style-type: none"> ○ Recurrent laser excision, micro debridement. ○ Micro-laryngoscopy polyp excision. ○ Adjunctive therapy: Cidofovir, acyclovir, interfero, new treatment: Avastin.
<p>Malignant Neoplasm Of The Larynx (squamous cell carcinoma of VC).</p>	<p>Hoarseness, aspiration, dysphagia, stridor, weight lost.</p>	<p>Supraglottic (30-40%, Nodal metastasis). Glottic (50-75%, Limited regional metastasis). Subglottic (Rare, 20% regional metastasis).</p>	<p>Risks: Smoking, alcohol, radiation exposure.</p>	<p>depend on stage (TNM)</p> <ul style="list-style-type: none"> ○ Radiotherapy. ○ Hemilaryngectomy. ○ Total Laryngectomy + Neck dissection (lymphadenectomy).
<p>Nasal Obstruction (cystic or solid mass)</p>	<p>cyanosis improves with crying and worsens on feeding (cyclic cyanosis)</p>		<p>CT or MRI to check extension of meningoencephalocele</p>	
<p>Choanal Atresia</p>	<p>Bilateral: (cyclic cyanosis) Unilateral: may be undiagnosed until later in childhood (rhinorrhea) CHARGE Syndrome</p>		<p>CT to differentiate between the types (Membranous 10%, Bony, Mixed)</p>	<ul style="list-style-type: none"> ▪ Emergency treatment is by insertion of oral tube ▪ Surgical treatment is by either transnasal or transpalatal choanal atresia repair
<p>Peritonsillar abscess (quinsy)</p>	<ul style="list-style-type: none"> ● Fever ● severe sore throat ● Otagia ● Odynophagia ● Uvular deviation ● Trismus ● Drooling ● Hot potato voice 		<ul style="list-style-type: none"> ▪ Clinical diagnosis. ▪ CT scan. Complications <ul style="list-style-type: none"> ➢ Para and retropharyngeal abscess ➢ Aspiration pneumonia 	<ul style="list-style-type: none"> ● I&D ● Aspiration ● IV ABX ● Tonsillectomy (after 6 weeks)
<p>Retropharyngeal abscess</p>	<ul style="list-style-type: none"> ● Odynophagia ● Hot potato voice ● Drooling ● Stiff neck ● Fever ● Stridor ● cervical adenopathy 		<p>Complications</p> <ul style="list-style-type: none"> ➢ Mediastinitis ➢ Respiratory distress ➢ Rupture abscess 	<ul style="list-style-type: none"> ● TRANSORAL Drainage ● IV ABX ● Airway management
<p>Parapharyngeal abscess</p>	<ul style="list-style-type: none"> ● Trismus ● fever ● Neck mass ● muffled voices (hot potato voice) ● intraoral bulge 	<p>Complications ➢ Aspiration</p> <ul style="list-style-type: none"> ➢ Cranial nerve palsy ➢ Airway compromise ➢ Septic thrombophlebitis ➢ Carotid blowout ➢ Endocarditis 	<ul style="list-style-type: none"> ● Laboratory and bacteriology ● CT (best modality) ● MRI 	<ul style="list-style-type: none"> ● EXTERNAL drainage ● IV ABX ● Airway management

Adenoid hypertrophy (3-7 years)	<ul style="list-style-type: none"> • Mouth breathing and snoring. • Hyponasality • Adenoid face (long and open-mouthed face). • Nasal discharge • Eustachian tube obstruction > ON. 	<ul style="list-style-type: none"> > Grade 1: <25% > Grade 2: 25-50% > Grade 3: 50-75% > Grade 4 : 75-100% (complete obstruction) 	<ul style="list-style-type: none"> • Lateral x ray shows enlarged adenoid (IMP) • Flexible fiberoptic. (now used instead of x-ray) 	<p>→ Conservative if small. → Surgical: adenoidectomy.</p> <p>Indications: recurrent / persistent <u>OM</u>, recurrent/chronic <u>sinusitis</u>, <u>obstructive sleep apnea</u>.</p>
Acute tonsillitis	<ul style="list-style-type: none"> • Fever. • Sore throat. • odynophagia. • Jaw stiffness (trismus). • Halitosis (bad breath). <p>Phases: erythema, exudative, follicular tonsillitis.</p>	<p>CAUSES</p> <ul style="list-style-type: none"> • Viral (most common cause). • Bacterial (group A β-hemolytic streptococcus) moraxella, H. influenza, bacteroides). 	<p>Complications</p> <ul style="list-style-type: none"> • Peritonsillar abscess (Quinsy). • Parapharyngeal or retropharyngeal abscess. • Otitis media. • Rheumatic fever, glomerulonephritis, scarlet fever. = associated with group A streptococcus (GAS). 	<ul style="list-style-type: none"> • Oral antibiotics (penicillin), bed rest, hydration, analgesia. • If the symptoms are severe : admit the patient and give IV fluids, IV antibiotics and analgesia. <p>indications for tonsillectomy</p> <ol style="list-style-type: none"> 1) Recurrent, 6 attacks in 1 year OR 4 times per year in 2 years OR 3 times per year in 3 years. 2) Grade 3 or 4 tonsils → (OSA) 3) Asymmetrical tonsillar enlargement + smoker > biopsy 4) Peritonsillar abscess.
INFECTIOUS MONONUCLEOSIS	<ul style="list-style-type: none"> • Fever. • Lymphadenopathy. • Malaise. • Exudative tonsillitis. • Hepatosplenomegaly. • Membrane on tonsils (membranous tonsillitis) 	<p>Pathogen: Epstein barr virus.</p> <p>Adolescents are especially susceptible (kissing disease).</p>	<p>→ Monospot test. → Paul bunnell test (heterophile antibodies in serum) 80% mononuclear and 10% atypical lymphocytes on smear.</p>	<ul style="list-style-type: none"> • Hydration, analgesia and oral hygiene. • avoid ampicillin, as it causes maculopapular rash. <p>Complications</p> <ul style="list-style-type: none"> • Involvement of cranial nerves. • Meningitis. • Autoimmune hemolytic anemia. • Splenic rupture (restrict activity).
Scarlet fever (Scarlatina)	<ul style="list-style-type: none"> • Red pharynx • Strawberry tongue • Perioral skin erythema and desquamation • Dysphagia • Malaise • Severe cervical lymphadenopathy. 	<p>The rash of scarlet fever is caused by the streptococcal pyrogenic exotoxins (ie, SPE A, B, C, and F).</p>	<p>Dick test: a test to determine susceptibility or immunity to scarlet fever by an injection of scarlet fever toxin.</p>	<p>Antibiotic</p>

Vincent's angina <ul style="list-style-type: none"> ● Sudden in onset. ● The symptoms subside in 4-7 days. 	<ul style="list-style-type: none"> ● Acute ulcerative lesion on the tonsils ● Pain. ● Fever. ● Cervical adenitis. 	Gram negative fusiform bacillus and a spirillum with anaerobic: Bacillus fusiformis and Borrelia vincentii	<ul style="list-style-type: none"> ● The base of the deep ulcers bleed when the membranous slough is removed. 	<ul style="list-style-type: none"> ● Metronidazole (flagyl), antiseptic, mouthwash.
Ludwig's angina: Bilateral cellulitis of submandibular and sublingual spaces. occurs in diabetics after dental procedure / teeth abscess	<ul style="list-style-type: none"> ● Wooden floor of the mouth ● Neck swelling and indurations ● Drooling ● Respiratory distress ● Swollen tongue ● Dysphagia ● Trismus 			<ul style="list-style-type: none"> ● Tracheotomy ● External drainage ● IV ABX
Chronic pharyngitis	<ul style="list-style-type: none"> ● Constant mouth clearing ● Dry throat ● Pharyngeal crusting ● Thick granular wall 	Rx: Address underlying etiology: <ul style="list-style-type: none"> ● Postnasal drip ● Irritant (dust, dry heat, smoking, alcohol) ● Reflux esophagitis ● Allergy ● Connective tissue disease ● Chronic mouth breathing ● Granulomatous disease ● Malignancy 		
Zenker's diverticulum:	<ul style="list-style-type: none"> ● Dysphagia ● Regurgitation of undigested food ● Aspiration 	Herniation of the mucosa at killian's triangle due to increased intraluminal pressure	Barium swallow	<ul style="list-style-type: none"> ● Cricopharyngeal myotomy. ● Diverticulectomy

بالتوفيق يارب
لولوه الصغير