INFLAMMATIONS OF THE PHARYNX
(Nasopharyngeal tonsil)

- situated at the junction of the posterior wall and roof of the nasopharynx
- composed of lymphoid tissues covered by columnar epithelium
- it is present at birth physiologically enlarged up to 6 years then regress and completely disappears by the age of 20
Adenoid
Causes of hypertrophy (Adenoid)

1- Recurrent attacks of rhinitis and adenoid infection.
2- Allergy
3- Idiopathic
Symptoms:

Nasal obstruction
Mouth breathing and snoring
Nasal discharge
Adenoid face:
- elongated face, dull expression,
- nasal discharge, open mouth,
- hitched-up upper lip, prominent and overcrowded upper teeth,
- high-arched palate
Adenoid Face 1
Adenoid Face 2
Diagnosis:

- nasopharyngoscopy
- X-ray nasopharynx lateral view
Treatment:

- When symptoms are not severe, decongestant nasal drops + antihistamines is the treatment of choice. Antibiotics if there is bacterial infection.
- Marked symptoms, treatment is adenoidectomy
Enlarged Adenoid
Differential diagnosis:
1- other causes of nasal obstruction (septal deflection, nasal polyps, allergic rhinitis)
2- orthodontic anomaly
Palatine tonsils are large lymphoid tissue situated in the lateral wall of the oropharynx. They form lateral part of the Waldeyer's ring. Tonsil occupies the tonsillar fossa between diverging palato-pharyngeal and palatoglossal folds.
• Tonsil has **two surfaces**, medial and lateral; **two borders** anterior and posterior; **two poles** upper and lower.

• **Medial surface** is covered by squamous epithelium and **15-20 crypts** usually plugged with epithelial and bacterial debris.
• Lateral surface extends deep to surrounding boundaries. It is coated with a fibrous sheet, an extension of pharyngobasilar fascia called capsule of the tonsil.

• The capsule is loosely attached to the muscular wall but antero-inferiorly it is attached firmly to the side of the tongue just in front of insertion of palatoglossus and palatopharyngeus muscles.
Tonsils-Gross & Microscopic
Acute tonsillitis

Aetiology: beta hemolytic strept., viral inf. may be primary.

Pathological types:
1- parynychymatous
2- follicular

Clinical features:
1- sore throat
2- odynophagia
3- pyrexia
4- malaise
5- exam.: enlarged tender cervical LN.
Acute tonsillitis

Classification (pathological types)

1- Acute catarrhal or superficial tonsillitis: Here tonsillitis is a part of generalized pharyngitis and seen in viral infections

2- Acute follicular tonsillitis: In which tonsillar crypts become filled with purulent materials
3- Acute parenchymatous tonsillitis: Here tonsils are uniformly enlarged and red.

4- Acute membranous tonsillitis: The exudates in the crypts coalesces to form membrane on the surface.
Acute Membranous Tonselitis
Acute Follicular Tonsillitis
Acute Parenchymatous Tonselitis
Acute catarhal tonselitis
Epidemiology

Affects school-age children but adults can also be affected. It is rare in infants (< 1 year age) and persons above 50 years.

More common in winter months.
Causative organisms:

- Group A beta hemolytic streptococci
- Haemophilus influenzae
- Streptococcus pneumoniae
- Staphylococci
- Tuberculosis (in immunocompromised)
- Viruses: adenovirus, Epstein-Bar virus and herpes simplex virus
Symptoms:

- sore throat
- difficulty in swallowing + pain
- fever (can be accompanied by rigors and chills)
- ear ache
- headache
- generalized body fatigue
Signs:

- Breath is foetid and tongue is coated.
- Hyperaemia of the pillars, soft palate and uvula.
- Red and swollen tonsils with yellowish spots in the crypts (follicular tonsillitis), whitish membrane on the medial surface of the tonsils (membranous tonsillitis) or enlarged and congestive tonsils with swollen uvula (acute parenchymatous tonsillitis).
- Enlarged and tender jugulodigastric lymph nodes.
Treatment:

- bed rest + plenty of fluids
- analgesia (Aspirin or Paracetamol)
- antimicrobial (Penicillin is the drug of choice) should be continued for 7-10 days
Differential diagnosis

1- Scarlet fever
2- Diphtheria
3- Infectious mononucleosis
4- Blood dyscrasia: leukemia, agranulocytosis
5- Vincent’s angina
Complications:
  **General**
  1- Rheumatic fever
  2- Glomerulonephritis
  3- Septicemia
  **Local**
  1- Peritonsillar abscess (quinsy)
  2- Paratonsillar abscess
  3- Retropharyngeal abscess
  4- Otitis media
  5- Lower resp.tract infection
Acute rheumatic fever and glomerulonephritis:

- These diseases are of unknown aetiology and follow infection with Beta-haemolytic streptococcus. The current belief is that antibodies produced against the streptococcus may in some instances cross react with patient’s own tissue.

- Thus the effect on tissue may be an arthritis, endocarditis or myocarditis or a dermatitis or rheumatic chorea (inflammation of cerebral cortex and basal ganglia).
Peritonsillar Abscess or Quinsy

- It is a collection of pus between fibrous capsule of the tonsil usually at its upper pole and the superior constrictor muscle of pharynx.

It usually occurs as a complication of the acute tonsillitis or it may apparently arise de novo with no preceding tonsillitis.
Bacteriology

- The bacteriology of acute tonsillitis and peritonsillar abscess is different although one is a complication of the other.
- The bacteriology of the quinsy is characterized by mixed flora with multiple organisms both aerobic and anaerobic.
Clinical Features

- **Fit and young adult** with a prior history of repeated attacks of acute tonsillitis.
- **Preceded by a sore throat** for 2-3 days which gradually becomes severe and unilateral.
- At this stage **patient is ill with fever**, often a headache and **severe throat pain** made worse by swallowing.
- There might be **referred otalgia**, pain and swelling in the neck due to infective lymphadenopathy. **The patient’s voice** develops a characteristic ‘**plummy**’ quality.
Signs

• Ill looking patient
• Pyrexia
• Often with severe trismus
• Striking asymmetry with oedema and hyperaemia of the soft palate.
• Enlarged hyperaemic and displaced tonsil
• Usually enlarged lymph nodes in JD region.
Treatment

• Preferably admitted to hospital and treated with analgesics and antibiotics.

• In a patient with an early peritonsillar abscess which is really a peritonsillar cellulitis incision and drainage are not recommended.
• Indications for I/D include marked bulging of soft palate or failure of an assumed PTab to respond to adequate antibiotics. This is undertaken at the point of maximum bulge.

• Interval tonsillectomy after 6 weeks.

• Abscess tonsillectomy.
PARAPHARYNGEAL SPACE INFECTION

- Most common cause: Peritonsillar infection
- Typical finding
  1. Trismus
  2. Angle mandible swelling
  3. Medial displacement of lateral pharyngeal wall

Others: fever, limit neck motion, neurologic deficit (C.N 9, 10, 12, Horner’s syndrom)
PARAPHARYNGEAL SPACE INFECTION

Treatment

1. Evaluate and maintain airway & fluid hydration
2. Parenteral antibiotic high dose 24-48 hrs.
3. If not improve, consider surgical drainage
RETROPHARYNGEAL SPACE INFECTION

Types: Acute (children)  
Chronic (adults)

- **In children:** follows retropharyngeal lymphadenitis from upper respiratory tract infections
- **In adult:** follows regional trauma and TB of the cervical spines
Clinical feature

- irritability, neck rigidity, torticollis,
- fever, drolling, muffle cry, airway compromise
- sore throat, odynophagia,
Investigation

Radiological:
Lateral neck film and CT scan: might show
widening of the retropharyngeal space
soft tissue shadow
air-fluid level
spine destruction (TB)
Treatment:

Hospital admission
Maintain the airway (intubation or tracheostomy)
Iv fluids and antibiotics
If abscess develop: drainage
Complications of deep neck spaces infection

1- Airway obstruction.
2- Septicemia.
3- neurological: cranial nerves palsy (9th and 10th) and Horner’s syndrome.
4- Carotid artery rupture.
5- Internal jugular vein thrombosis.