Laryngitis

By

Dr. ahmed A. al-zubiadi

F.I.C.M.S
Classification:

1-acute

- Infective
- Exogenous
- Autoimmune

2- chronic

- Specific
- Non specific

**Acute infective laryngitis:**

It is the most frightening ENT paediatric emergency.

Def.: it is a distinct form of acute inflammation of the larynx

Site: main site is epiglottis but other part of supraglottis involve so better to called supraglottitis.

- Age : mainly 2-6 years ,but can occur in any age including adult.
• Causative organisms: H.influenzae in most of cases, but streptococcus, pneumococcus and staphylococcus. Also have been reported.

Clinical features:

• Rapidly progressive disease, especially in children.

• May be fatal within few hours of onset unless immediately diagnosed and treated.

• Temperature rapidly increase, sometime >40 c.

• Dysphagia start with sore throat, difficulty in swallowing and then refusal of oral feeding.

• Voice is not hoarse but muffled (hot potato voice)
• Child prefers to be quiet and sit and support his chest with knees (tripod sign).

• Drooling of saliva.

• Stridor is a late feature and mean near complete obstruction.

**Examination:**

• Examination of oral cavity by tongue depressor may be fatal.

1. Due to vagal stimulation?

2. Displacement of edema from supraglottic region to glottic and subglottic region converting near complete to complete obstruction.
3. If examination is necessary it should be performed in place where all equipments for securing airway is accessible with attendance of team from otolaryngologist, paediatrician and anesthesiologist.

- Classical picture seen on examination is **cherry red** grossly swollen epiglottis.
Investigation:

1. Plain x-ray of soft tissue of the neck, lateral view show (thumb printing) sign
2. Blood culture may show H.influenzae

3. Transnasal fiberoptic laryngoscopy can be performed in adults.

Management:

1. Admit the patient to hospital and consider an emergency state.
2. Close observation by team of otolaryngologist, pediatrician and anesthesiologist.
3. When the airway is sufficient treatment consist of
4. Never agitate the child by oral exam or intravenous canula.
5. Keep child close to the parents.
6. Inhalation of moist air
Give antibiotic: drug of choice ampicillin/sulbactam, ceftriaxone. If patient allergic to penicillin give chloramphenicol.

• Steroid may be of value

4. If the condition is rapidly progress

• The patient is immediately taken to the operating room.

Secure airway by orotracheal intubation (better than tracheostomy)

• Otolaryngologist porform

Direct larungoscopy
• Transfer patient to ICU
• Extubate after 24-48 hr when There is leak around tube or bedside Direct laryngoscopy show decrease In edema.

• Observe for further 24-48 hr
• Discharge with appropriate AB for total of 10 days.

**Acute laryngotraceobronchitis (Croup)**

**Definition**: acute infection of lower respiratory passages, extending from
the larynx (mainly subglottic) into the smaller subdivision of bronchial tree.

**Epidemiology:** the most common infectious cause of stridor in children.
Mainly at winter season, mainly at night.

Age 6 months to 3 years.

• **Aetiology:** mainly parainfluenza type 1-4

Other organisms also implicated.
eg:pneumococci

• **Pathology:**

1. Inflammation of the mucous membrane.

2. Congestion

3. Edema
4. Exudation of thick tenacious secretion.

Clinical features:

1. At the onset disease is like ordinary cold except for the early presence croupy cough.

2. Hoarsness

3. As condition progress inspiratory stridor occurs the become biphasic.

4. Features of sever illness:
   • Biphasic Stridor.
   • Agitation.
• PR>140, RR>80.

Investigations:

1. X-ray of soft tissue of neck
   Anteroposterior view show (steeple sign), due to subglottic narrowing by edema.

   ![X-ray Image]

2. Flexible nasopharyng__
   Oscopy.
Treatment:

Over 85% of cases are mild and can be managed in the community.

- Advised parents to nurse their child in humidified room.
- Hospitalization for those with severe symptoms.
- Nebulized racemic epinephrine produces a rapid improvement in symptoms by vasoconstriction and, therefore, a reduction in mucosal edema.
- Both nebulized and systemic steroids have been demonstrated to produce improvement (late onset).
- Antibiotics not required unless suspect bacterial superinfection.
- Sedation is contraindicated.
• Good hydration

• Oxygen

• A small number of cases of croup (1.5%) do not respond to medical therapy and airway obstruction worsens. In this situation, endotracheal intubation and ventilation is indicated until the edema resolves.

• Tracheostomy is reserved for cases that can not intubated.
Tuberculous laryngitis

• Allmost allways secondary to pulmonary tuberculosis.

• Pathology:
  1. Tuberculous granuloma in subepithelial tissue
  2. Fibrous tissue capsule
  3. Perichondritis and cartilage necrosis
  4. Granulation tissue formation

Note: Most common site of tuberculosis of the larynx is the posterior larynx (interarytenoid fold). The next most common site is the laryngeal surface of the epiglottis.

Clinical features:

• Hoarseness
• Cough(late)
• Pain and referred otalgia
• In advanced cases dyspnea from edema, scar contraction or destruction of underlying cartilage.

Investigation:

• Sputum for AFB
• CXR
• Direct laryngoscopy and biopsy

Treatment:
• Antituberculosis drugs
• Voice rest
• Narcotic for pain
• Injection of the superior laryngeal nerve with procaine for relief of pain
• Tracheostomy
• Surgery for secondary stenosis

**Syphilitic Laryngitis:**
• rare manifestation of oropharyngeal syphilis.
• Never primary stage.
• Secondary Stage SSx: temporary mild edema, *painless*
• Tertiary Stage SSx: *gummas may break down cartilage.*
• Site affect anterior parts of the larynx, epiglottis and aryepiglottic fold.

• Treatment:
  ❖ Penicillin
  ❖ Tracheostomy
  ❖ Reconstructive surgery