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Inflammatory disorders of the larynx

Acute laryngitis: adults

Clinical features

- Aphonia (the voice is lost or reduced to a whisper).

Or

- Dysphonia (hoarseness).
- Cough – sometimes painful.
- Stridor – rare but potentially serious.

Examination by indirect laryngoscopy or using a flexible endoscope shows a red swollen larynx, sometimes with stringy mucus between the cords.

Aetiology

Acute laryngitis is more common in the winter months. It is usually caused by a virus, e.g. acute coryza (common cold).

Predisposing factors

- Upper respiratoy tract infection (URTI)
- Overuse of the voice
- Smoking (active or passive)
- Alcohol

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Acute laryngotracheobronchitis or 'croup' in children

Acute laryngotracheobronchitis (ALTB) or 'croup' is very common in the winter months, especially in children under 2 years old. As a result of an acute viral upper respiratory infection, the laryngeal and tracheobronchial mucosa becomes swollen and oedematous. The child is unwell, typically with a harsh 'croupy' cough and a hoarse voice. Progressive airway obstruction can follow. The prognosis in ALTB or 'croup' is much better now that steroids are routinely used in the primary care management.

Treatment of laryngitis

- Voice rest (very difficult in practice).
- Inhalations with steam or menthol
- Avoid smoking (active and passive).
- Antibiotics are sometimes needed.

Acute epiglottitis (children)

Acute epiglottitis is a localized infection of the upper part of the larynx usually caused by *Haemophilus influenza type B (Hib)*. It causes severe swelling of the epiglottis, which obstructs the laryngeal inlet. In children it constitutes a most urgent emergency – the child may progress from being perfectly well to being dead within the space of a few hours due to airway obstruction. Fortunately, acute epiglottitis has now become very rare in the West because of the widespread use of Hib vaccine. Sporadic cases still occur and occasionally a similar clinical picture can be caused by other organisms, e.g. *Staphylococcus*. Worldwide, in areas where the Hib vaccine is not widely used, acute epiglottitis is still a major cause of acute airway obstruction in children.

Treatment of ALTB (Croup) in children

- Oral steroids: dexamethasone 0.6 mg/kg. as a single dose, repeated after eight hours if needed. This can also be given subcutaneously or intravenously.
- Nebulized ventolin, typically 1 mL of 1 in 1000 in 3 mL of saline, or nebulized adrenaline (epinephrine) 2 mL of 1 in 1000 in 2 mL normal saline
- Humidification/a steamy environment soothes the harsh cough.
- Paracetamol is a good analgesic and antipyretic.
- Some children will need hospital admission and rarely endotracheal intubation.

Clinical features

- The child is unwell, with increasing dysphagia.
- Drooling.
- A 'quack-like' cough.
- Stridor develops rapidly. The child will sit up, leaning forward to ease his airway.

Management of suspected acute epiglottitis

- Do not persist in examining the child's throat. You may cause spasm.
- Admit the child to hospital at once.
- Give intravenous antibiotics (amoxycillin).
- Most cases are now managed by endotracheal intubation.
- Some children will need tracheostomy.

Adult epiglottitis in adults ('supraglottitis')

In adults the pain is severe and is worsened on swallowing. It is slower to develop and to resolve than in children. Respiratory obstruction is less likely but hospital admission is still wise.

Laryngeal diphtheria

Laryngeal diphtheria is now rare in the Western world. The child is ill and usually presents with a membrane on the pharynx. Stridor suggests the spread of the membrane to the larynx and trachea. Hospital admission, antitoxin and general supportive measures can be life-saving. The child may need a tracheotomy.

Chronic laryngitis (Fig. 26.1)

Hoarseness is a serious sign and if it persists the larynx needs to be inspected by an ENT surgeon with a view to a biopsy.

Smoking, alcohol and habitual shouting/faulty voice production can cause chronic inflammatory changes in the laryngeal mucosa. Professional voice users e.g. teachers, actors, singers, are especially susceptible to laryngitis and may develop dysphonia due to laryngeal muscle imbalance.

The voice is hoarse and fatigues easily. There may be discomfort and a tendency to clear the throat.

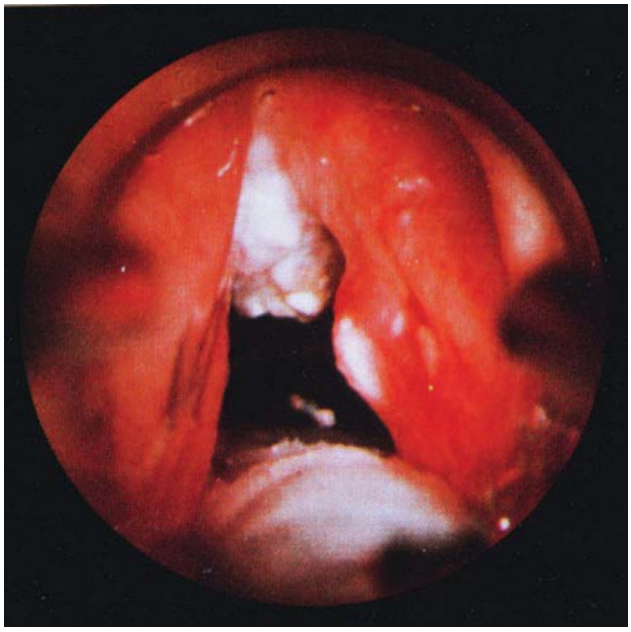

Figure 26.1 Chronic laryngitis with keratosis. This is a pre-malignant condition.

Dysplasia with disorganized mucosal cellular architecture may supervene upon chronic laryngitis. In severe cases, especially if the patient continues to smoke, this can go on to cause carcinoma.

Treatment

- The voice should be rested
- Treat upper airway sepsis
- Steam inhalations give good symptomatic relief
- Smoking is prohibited
- Voice therapy or the support of a singing teacher may be helpful

Chronic granulomatous laryngitis

Tuberculosis of the larynx is now very rare and occurs only in the presence of pulmonary tuberculosis. Treatment is by antituberculous drugs.

Syphilitic laryngitis is also extremely rare.

CLINICAL PRACTICE POINTS

- Oral steroid therapy has greatly improved the management of ALTB or 'croup' in children.
- Acute epiglottitis is now rare in the West but still potentially fatal. Admit suspected children urgently to hospital.
- Hoarseness may be a sign of serious laryngeal disease. If it persists the larynx needs to be inspected by an ENT surgeon with a view to a biopsy.

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