

Bacterial Tracheitis

Pseudomembranous Croup

1. **Epidemiology**
 - a. Affects older children than in croup (ages 1-6 years)
2. **Etiology**
 - a. *Staphylococcus aureus*
 - b. Streptococcal species
 - c. *Haemophilus influenzae* type B (HiB)
3. **Symptoms**
 - a. Very toxic appearance with rapid progression
 - b. High fever
 - c. Purulent sputum
4. **Signs: Does not respond to croup therapies**
 - a. Unresponsive to Racemic Epinephrine or mist therapy
5. **Differential Diagnosis**
 - a. Laryngo-tracheo Bronchitis (Croup)
 - b. Epiglottitis
 - c. Foreign Bodies
 - d. Abscess
6. **Radiology: Lateral Neck X-ray (only in the stable patient)**
 - a. Tracheal pseudomembrane
 - b. Necrotic epithelium subdivides trachea lumen
 - c. May reveal subglottic narrowing, clouding of tracheal air column, or irregular tracheal margin
7. **Lab Studies**
 - a. Obtain bacterial culture and Gram stain of tracheal secretions
 - b. Obtain blood cultures
8. **Management**
 - a. Maintenance of an adequate airway is of primary importance
 - i. Avoid agitating the child.
 - ii. If the patient's respiratory status deteriorates, usually due to movement of the membrane, bag-valve-mask ventilation should be effective
 - b. Antibiotics
 - i. Ceftriaxone (Rocephin) 50-75mg/kg/day IV or IM
 - ii. Cefuroxime (Ceftin) 50-100mg/kg/day IV or IM
 - c. Some may require intubation
 - i. Smaller ET Tube than usual