

***IN THE NAME OF
GOD***



Bronchiolitis

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INTRODUCTION

- ***Bronchiolitis is the most common lower respiratory tract infection in children.***
- ***Bronchiolitis is a seasonal disease, dominating winter months, with a peak over 6 to 8 weeks around the winter.***



- **Approximately 40% of infants are affected by bronchiolitis in the first year of life.**
- **The majority of cases occur in children under 1 year of age.**
- **A “classic” case would be an infant aged 3 to 5 months.**



Etiology

- *Viral etiology:*
- *RSV the most common cause reported in 43% to 75%*
- *Human rhinovirus (18%)*
- *Influenza*
- *Coronavirus*
- *Human metapneumovirus*
- *Adenovirus*
- *Parainfluenza virus*



Pathogenesis

- *the bronchioles are edematous and blocked by necrotic epithelium and neutrophils, with some mucus binding this debris together.*
- *Ciliary disruption*
- *Peribronchial infiltration*





HIGH-RISK POPULATION FOR BRONCHIOLITIS

- **-preterm**
- **-cystic fibrosis**
- **-congenital heart disease**
- **-chronic lung disease**
- **-immunodeficiency**
- **-Down syndrome**
- **- cerebral palsy**



SYMPTOMS

- ***Rhinorrhea***
- ***Cough***
- ***Pyrexia***
- ***Declines oral feeding***
- ***Nasal obstruction***
- ***Apnea***



PHYSICAL FINDINGS

- *-Increased respiratory rate*
- *-Use of accessory muscles*
- *- Wheezing*
- *-Crackles*
- *-Reduced arterial oxygen saturations*
- *-Respiratory rate is a key marker of disease severity, with ≥ 60 /min considered severe and ≥ 70 / min*



DISEASE SEVERITY

- *Severe (<93%)*
- *Very severe <90%*
- *Inability to feed orally*
- *Level of consciousness*



IMAGING

Chest radiography atypical:

- ***focal crackles***
- ***temperature remaining above 39 °C***
- ***respiratory failure***



Differential diagnosis

- **Asthma**
- **Pneumonia**
- **Chronic lung disease**
- **Foreign body aspiration**
- **GERD**
- **CHD**
- **Vascular rings**



Management



HOSPITALIZATION

- *Toxic with poor feeding*
- *Lethargy*
- *Apnea*
- *Hypoxemia*
- *Dyspnea , cyanosis*
- *Parent unable to care for child at home*



Hydration

The threshold for supporting hydration is typically when an infant's intake is reduced to 50% to 75% of usual volume.



Oxygen may be used to treat hypoxemia

- *HFNC*
- *CPAP*
- *Intubation*



*Corticosteroids &
bronchodilators &
chest physiotherapy
NOT recommended*



THE END.

