

Obstructive bronchitis

Obstructive bronchitis (*bronchitis obstructiva, spastic*) is acute bronchitis with expressed obstructive component due to the tissue edema, bronchial hypersecretion and smooth muscle spasm of the airways. It is invoked by the inflammatory process in lower respiratory tract, usually in medium and large bronchi.^[1] Typically occurs in **newborns** and **infants**. Higher frequency in allergic patients. Sometimes might be difficult to differ from asthma.^[2]

Etiology

Obstructive bronchitis is invoked typically by **RS-viruses**, adenoviruses, influenza viruses and parainfluenza or rhinoviruses.

Patogenesis

Infectious agents (virus) replicates in tracheobronchial tissue and therefore invokes necrosis of epithelium. New epithelium cells proliferate, they are however without cilia and therefore there is a worsened clearance of the tissue. Secretion obstructs the lumen of airways with inflammatory edema and spasm.^[1]

Clinical signs

Expiratory **dyspnoea** dominates with diffuse obstruction sounds such as wheezing, **prolonged expirium**, **tachypnoea** and **dyspnoea**, we can see **inflating** jugulum and subcostal region. In severe cases also inspiration figure of thorax and cyanosis. Lung X-ray shows more intense bronchovascular parts, sometimes also emphysema.^[2]

Diagnosis

Based on the clinical signs of expiratory dyspnoea with wheezing and prolonged expirium.^[2]

Differential diagnosis

In differential diagnosis consider bronchiolitis, asthma bronchiale, foreign object aspiration, hoarseness, barking cough and inspiration dyspnoea which is typical in upper respiratory tract disorders, cystic fibrosis, tracheobronchial anomalies.

Therapy

Symptomatic – inhalation of bronchodilators via spacer or nebulized (selective beta-2-sympathomimetics = salbutamol, parasympatholytics = ipratropium bromide), warm nebulization, in severe cases oxygen therapy is indicated with corticosteroids (per os or i.v.). We don't treat with mucolytics (secretion of phlegm is increased and leads to worsened state) or antitussives (cough reflex is stronger) or sedation (except for ICU).^[3]

Prognosis

In children may be even lethal. Obstructive bronchitis in infants is a common cause of respiratory failure that needs ICU therapy and artificial ventilation. Problematic situation is in allergic patients, where recurrent bronchitis may lead to asthma.^[2]

Links

Other articles

- Akutní bronchitida • Recidivující bronchitida • Astma • Bronchiolitida • Akutní laryngitida

Taken from

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Used literature

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References

- 1.
- 2.
3. Přednáška Pneumologie MUDr Tukové, PhD, KDDL Praha

Kategorie:Pediatrie Kategorie:Pneumologie