ACUTE EPIGLOTTITIS /SUPRAGLOTTITIS

Epiglottitis is a life-threatening infection involving the epiglottis and other supraglottic structures.

Pathophysiology and Epidemiology
Hemophilus Influenzae type B (HIB) is still the most common pathogen causing the infection in children. In adults and older children since the use of HIB vaccine the disease is can be bacterial, viral or fungal. Infection leads to oedema of the infected structures causing difficulty in breathing. Therefore, the term currently used for this condition is "supraglottitis "instead of epiglottitis. The age range of children suffering from the disease has also increased from six to 12 years.

Diagnosis
Diagnosis is on clinical suspicion. Signs and symptoms are rapid onset of high fever, sore throat, inability to control secretions, classic tripod positioning, difficulty breathing, and irritability.
Child is usually sitting with mouth open. In severe acute cases there maybe suprasternal regression, tachypnea and cyanosis. Such a child should be transferred early to the operating room (OR) for further management and for securing the airway.

Evaluation
Avoid oropharyngeal examination, forcefully applying a face mask, monitoring, or separation from the parent.

Management:
Preparation:

- Inform OR to prepare "E" tracheostomy set.
- Prepare for difficult airway management and equipment along with an ENT surgeon present and scrubbed up in OR.
- Prepare ETT 1-2 sizes smaller than calculated size.

Conduct of Anaesthesia:

- Anesthesia induction and tracheal intubation should be done by the most experienced member of the team.
- A videolaryngoscope if available is preferable.
- If videolaryngoscope is not available, use a straight blade laryngoscope to lift the epiglottis and expose the laryngeal inlet.
- Do not attempt to use a supraglottic device.
- Preparation for a surgical airway is done in parallel to attempt at tracheal intubation.
- Approach to emergency surgical airway will depend on child's age.
- Gaseous induction with 100% oxygen and sevoflurane with mask CPAP in the presence of parents.
- Establish i.v. access and apply monitors after induction.
- Intubate patient orally under deep inhalational anaesthesia.
- Do blood cultures and take bacterial swab from the epiglottis if possible before administration of antibiotics.
- After airway management empiric antibiotic therapy should be started with third generation cephalosporins and an anti-staphylococcal agent.

Post anaesthesia:

- Patient should be transferred and monitored in an intensive care setting.
- Extubate when there is audible air leak from around ETT, usually within 36-72 hours.

Patient should be monitored for complications which include: epiglottic abscess, and secondary infections due to bacteremia

References:

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