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Acute epiglottitis

Overwiew

Acute epiglottitis is a medical emergency characterized by the rapid and severe inflammation of the epiglottis. This condition can lead to a sudden and life-threatening obstruction of the airway, requiring immediate medical intervention. While historically more common in children, it can affect individuals of any age.

What is it

What is Acute Epiglottitis? Acute epiglottitis is the inflammation of a specific anatomical structure: the epiglottis. This piece of cartilage, shaped much like a leaf, is positioned at the back of the throat, just above the larynx or voice box. Its essential job is to act as a protective cover, folding down over the windpipe (trachea) whenever a person swallows. In this condition, the epiglottis becomes severely swollen and enlarged, creating a physical blockage that can dangerously restrict or completely cut off the flow of air to the lungs.

Causes:

The inflammation characteristic of acute epiglottitis is most frequently triggered by an aggressive infection or, less commonly, by direct physical injury. The primary factors that can lead to this condition are:

- **Infection by Haemophilus influenzae type b (Hib):** - Historically, this specific bacterium was the predominant cause. The Hib bacteria can spread through respiratory droplets and, upon reaching the throat, directly invade the tissues of the epiglottis, prompting a rapid and severe inflammatory response from the body's immune system.
- **Other Pathogenic Microbes:** - Following the widespread use of the Hib vaccine, other infectious agents have become more common culprits. Bacteria such as Streptococcus pneumoniae, Staphylococcus aureus, and various streptococcal species can also colonize the upper respiratory tract and initiate a similar infection of the epiglottis.
- **Direct Physical Trauma:** - The condition is not always caused by an infection. Direct injury to the throat can also incite acute inflammation of the epiglottis. This can include thermal burns from swallowing excessively hot liquids or physical trauma from an external blow to the neck or an object lodging in the throat.

Risk Factors:

While epiglottitis can strike unexpectedly, certain conditions and personal characteristics elevate the potential for developing this dangerous inflammation. The following groups face a greater likelihood:

- **Unvaccinated or Under-vaccinated Individuals:** - Failure to receive or complete the full vaccination schedule for Haemophilus influenzae type b (Hib) is the single most significant risk factor, as it leaves a person without protection against its primary historical cause.
- **People with a Compromised Immune System:** - Any condition that weakens the body's defenses, such as diabetes, HIV/AIDS, or undergoing chemotherapy, can impair the ability to overcome the

infections that typically trigger epiglottitis.

- **Adults in Specific Age Brackets:** - In the post-vaccine era, adult men, particularly those over the age of 45, have emerged as a more prominent risk group for developing the condition.
- **Individuals with Anatomic Abnormalities of the Upper Airway:** - Structural issues in the throat or neck can sometimes make the epiglottis more susceptible to injury or inflammation.

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Additional Information

Commonly Used Medications for Acute Epiglottitis Treatment is administered in a hospital setting and focuses on securing the airway and eliminating the infection. Ceftriaxone: This is a powerful intravenous antibiotic used immediately to combat the wide range of bacteria that could be responsible for the infection. Dexamethasone: A potent corticosteroid may be given to aggressively help reduce the dangerous swelling of the epiglottis and surrounding tissues. Vancomycin: This antibiotic is sometimes added to the regimen if there is a suspicion of infection by methicillin-resistant Staphylococcus aureus (MRSA). Where to Find More Information? MedlinePlus: An encyclopedia entry from the U.S. National Library of Medicine that provides a direct overview of symptoms, diagnosis, and treatment. https://medlineplus.gov/ency/article/000605.htm. Merck Manual (Consumer Version): Offers a detailed explanation of epiglottitis written for patients, covering causes and prognosis in clear terms. https://www.merckmanuals.com/home/ear,-nose,-and-throat-disorders/mouth-and-throat-disorders/epiglottitis. Children’s Hospital of Philadelphia (CHOP): Provides specific information on how epiglottitis affects children, including signs to watch for and the typical treatment approach. https://www.chop.edu/conditions-diseases/epiglottitis. Support Emergency Medical Services (e.g., 911): The most critical support is immediate access to emergency personnel who can provide airway support and transport to a hospital. This condition requires an urgent emergency response. Hospital Intensive Care Unit (ICU) Team: Patients are managed by a specialized team of doctors and nurses in an ICU who provide constant monitoring and advanced medical care. Otolaryngologist (ENT Specialist): Following recovery, a follow-up with an ear, nose, and throat specialist may be recommended to assess the airway and ensure complete healing.

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