

A Case Report of Epiglottitis in an Adult Patient

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Background

- Epiglottitis involves swelling and inflammation of the epiglottis and adjacent structures, most commonly due to infectious organisms including *Haemophilus influenzae type B (HIB)*, *Streptococcus pyogenes*, *S. pneumoniae*, and *S. aureus*.
- The HIB vaccine has resulted in a drastic decrease in the incidence of epiglottitis in children. The incidence amongst adults, 0.97-3.1 per 100,000, has remained stable.
- These patients can present with dysphagia, drooling and stridor, as seen in acute infectious epiglottitis. They carry the risk of potential upper airway obstruction if not promptly recognized.

Case Description

- A 45-year-old female with a history of hypertension presented to the community hospital emergency department with two days of sore throat and hoarseness. She reported odynophagia, dysphagia, orthopnea, and neck fullness.
- The patient was moderately hypertensive, otherwise had normal vital signs without respiratory distress or need for supplemental oxygen. Initial workup revealed a leukocyte count of 23,200. CT Neck with contrast revealed an enlarged and edematous epiglottis and aryepiglottic folds. She was started on intravenous steroids and antibiotics then transferred to a tertiary care center.
- Upon arrival, ENT performed a bedside nasopharyngolaryngoscopy (NPL) which revealed an enlarged epiglottis, which was also demonstrated on CT. After a multidisciplinary discussion between EM, ENT, trauma, and anesthesiology teams, the decision was made to transport the patient to the operating room for an awake nasal fiberoptic intubation. Following an uneventful intubation, the patient was sedated, labeled “difficult airway”, and transferred to the intensive care unit for further management.

Imaging



Figure 1: CT neck with contrast (axial view) demonstrating epiglottitis



Figure 2: CT neck with contrast (sagittal view) demonstrating epiglottitis

Discussion

- This woman had a negative RVP, sputum and blood culture results; however, her HIB IgG level was measured at 0.15 mcg/mL. Generally, levels between 0.15 and 1.0 mcg/mL are the minimum protective and long-term protective concentrations, respectively. Considering her HIB IgG levels were on the low end of protection, it is a likely etiology.
- In an adult patient, we must always consider non-HIB etiologies such as Candida infections, direct trauma, chemical or inhalational burns, or as a complication of systemic disease because laboratory tests are not always particularly helpful in picking up a diagnosis.
- In this patient, the use of NPL was an effective diagnostic tool for providing a rapid diagnosis. In some cases, it is useful for therapeutic intervention.
- It should be noted, in the presence of respiratory distress, diagnostic procedures and radiographic imaging are not the priority. Securing the airway is always our number one concern.
- This case serves as a reminder about the importance of early identification and management of epiglottitis to prevent significant airway compromise and subsequent need for emergent and invasive interventions.

References

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