

Introduction

Acute epiglottitis is a bacterial infection of the supraglottic structures that can result in rapid, life threatening upper airway obstruction. It classically presents in non-immunized children as the result of infection by *H influenzae* type b. Adult epiglottitis is less common and is caused by a variety of organisms including group A β -hemolytic *Streptococcus pyogenes*, *Staphylococcus aureus*, *S pneumoniae*, *Klebsiella pneumoniae*, and *H influenzae*.¹

A possible sequelae of epiglottitis is coalescence resulting in abscess. Epiglottic abscess is more common in adults than children. This may be due to the larger dimensions of the adult larynx allowing for a longer disease course before onset of airway compromise.² Treatment of epiglottic abscess includes aggressive airway intervention, surgical drainage, and IV antibiotics. Need for airway intervention is more common in patients with abscess.³

Patient

A 46-year-old, immunized, immunocompetent, otherwise healthy male presented with one day of hoarseness, sore throat, and dysphagia. On initial bedside fiberoptic laryngoscopy, the patient had an erythematous, edematous epiglottis. This appeared to originate from a cyst centered on the vallecular surface of the epiglottis. The patient was cultured, started on broad-spectrum antibiotics, and admitted to the ICU. The decision was made to proceed with awake fiberoptic intubation. Two days after intubation, the patient underwent direct laryngoscopy (DL), which showed epiglottitis with abscess. (Figure I) Subsequent exams over the next three days showed spontaneous purulent drainage. (Figure II) Aerobic bacterial cultures grew *Actinomyces* species and antibiotics were narrowed to ampicillin-sulbactam. Serial exams were performed, and the patient was extubated on day five. (Figure III) The patient was discharged on oral amoxicillin-clavulanate and seen in follow-up two weeks later with complete resolution of his symptoms and a normal exam.

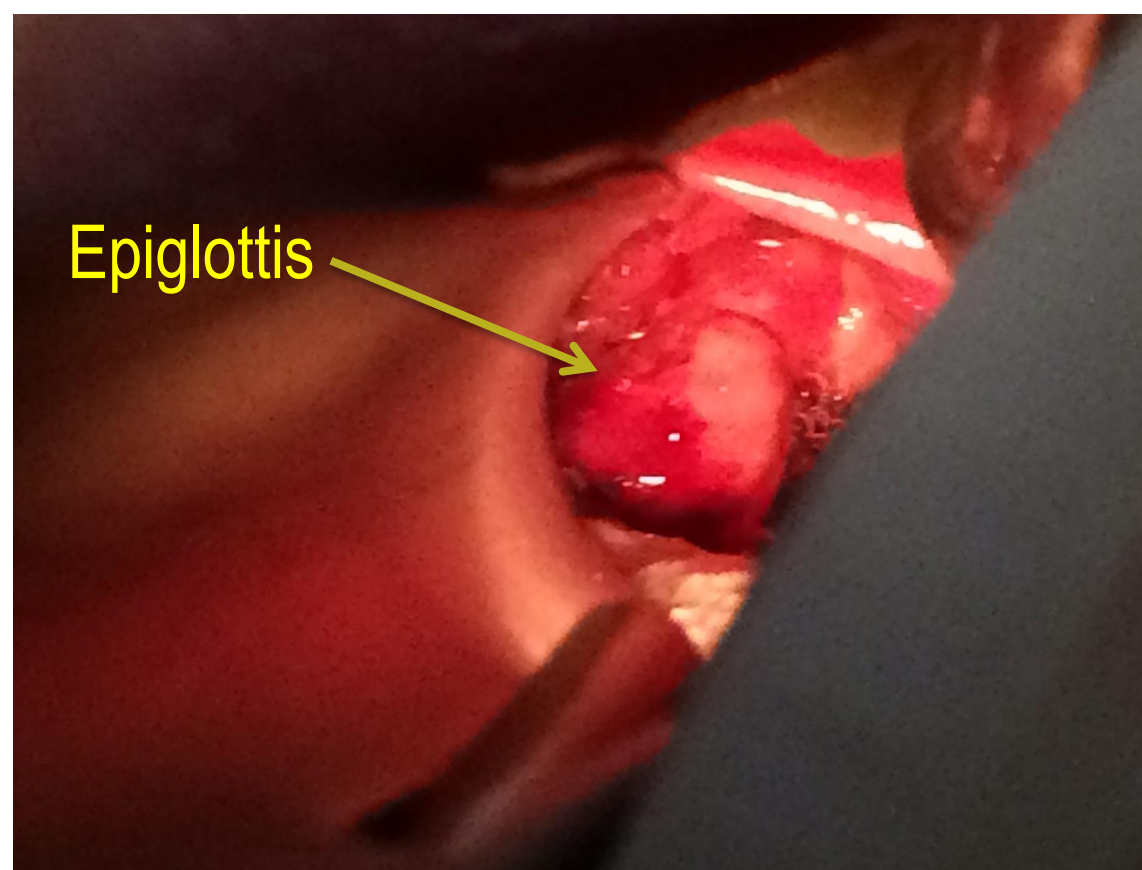


Figure I. Direct laryngoscopy (DL) performed on hospital day two showing acute epiglottitis with abscess formation.

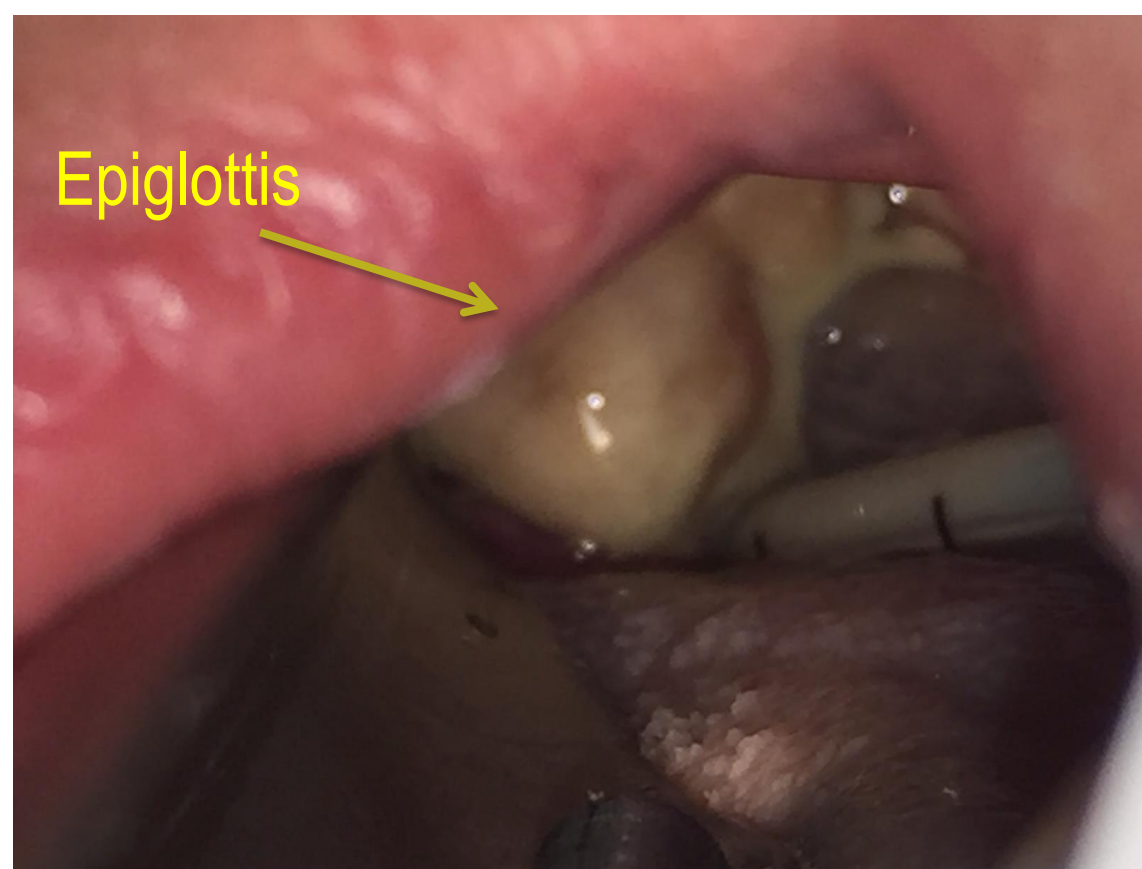


Figure II. DL on hospital day three showing decompression and extensive pus covering the epiglottis and oropharynx.

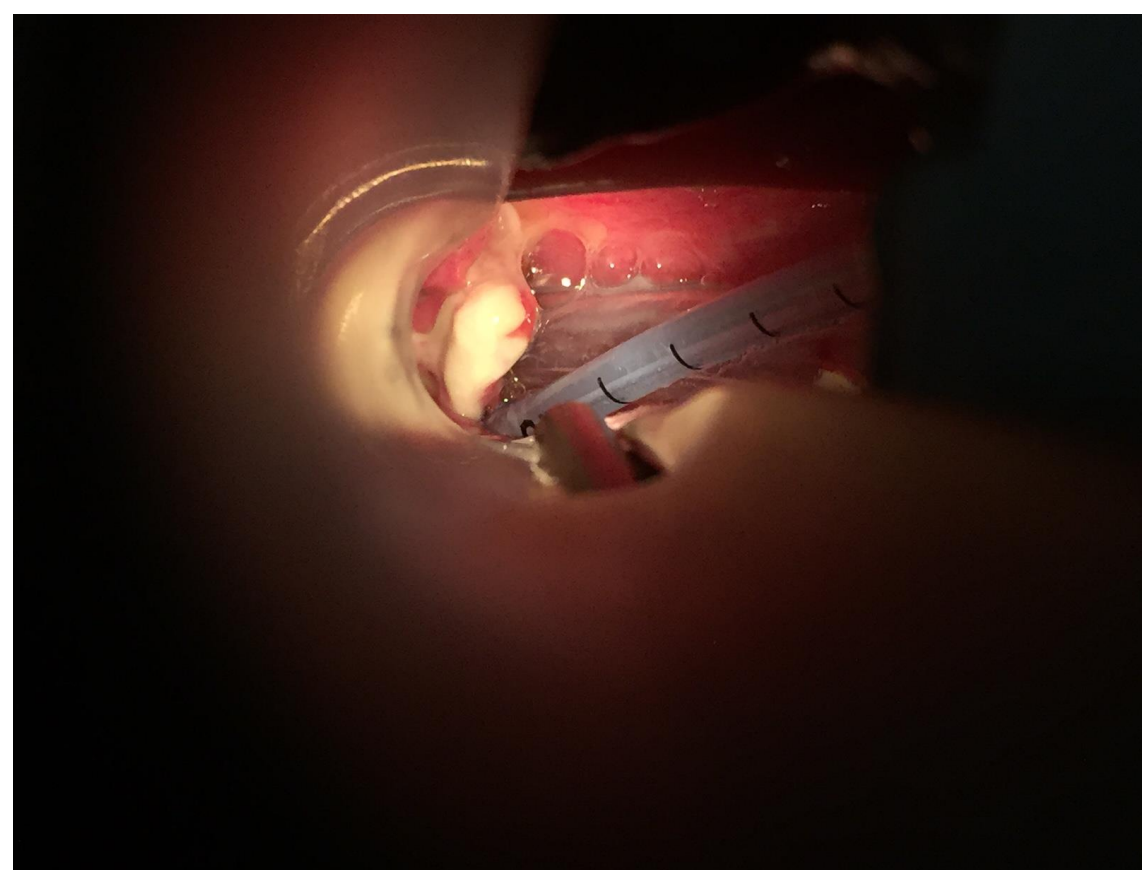


Figure III. DL performed on day of extubation showing pseudomembrane and improved epiglottic edema.

Discussion

Epiglottic abscess is thought to arise from either severe coalescent infection or an infected mucus retention cyst of the tongue base or vallecula.^{2,4} Indeed, in our patient an infected cyst was appreciated on flexible fiberoptic nasopharyngoscopic exam prior to intubation. Our patient was not imaged, though DL performed on day three showed adequate spontaneous drainage of the abscess with copious frank pus in the oropharynx and supraglottis. Biopsy showed extensive necrosis and exudate. We report the first case of epiglottic abscess caused by *Actinomyces*, a bacteria typically associated with dental procedures and oral abscesses.

In adults, as in children, bacterial epiglottitis is an acute disease which can rapidly progress and cause life-threatening airway obstruction. Aggressive supportive measures, including intubation for airway protection and a multi-specialty approach is recommended for appropriate work-up and treatment.

Conclusions & Pearls

- Epiglottic abscess is a possible sequelae of epiglottitis, caused by an infected cyst or severe coalescent infection
- Treatment of epiglottic abscess includes airway control, surgical drainage, and IV antibiotics
- *Actinomyces* is a rare cause of epiglottitis in adults

References

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