

Images

Acute epiglottitis complicating an emphysematous abscess

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A 32-year-old man presented to the emergency department with a 2-day history of nonproductive cough, fever, severe sore throat, odynophagia, and dysphagia. A chest radiograph showed no significant finding, but the lateral view of the neck demonstrated “vallecula” and “thumbprint” signs (Figure 1). Significant laboratory findings were a white blood cell count of 22,000/μL with 93% neutrophils and an elevated C-reactive protein at 51.6 mg/L (49.1 nmol/L). Direct laryngoscopy revealed a swollen epiglottis (Figure 2). The neck computed tomographic (CT) scan demonstrated a swollen epiglottis with air bubbles in the heterogeneous lesion consistent with acute epiglottitis complicated by an emphysematous abscess (Figure 3).

Acute epiglottitis is a bacterial or viral infection of the supraglottic structures that can lead to upper airway obstruction, although this is rare in adult cases.¹⁻⁵ Clinical manifestations include fever, sore throat, muffled voice, dysphagia, odynophagia, drooling, dyspnea, and stridor.¹⁻⁷ Emphysematous abscess is rare, with an incidence of 0 to 3%.^{1,6} Vallecula and thumbprint signs on the lateral view of the neck should aid in diagnosing acute epiglottitis. CT can assess the extent of the disease and identify possible complications. Direct laryngoscopy will show the adjacent structures of epiglottitis. The most common pathogen is *Haemophilus influenzae* type B in children and *Streptococcus pneumoniae* in adults, but positive rates of throat swab and blood cultures are uncommon.¹⁻⁷

Although radiologic studies demonstrated an emphysematous abscess in this patient, medical treatment was

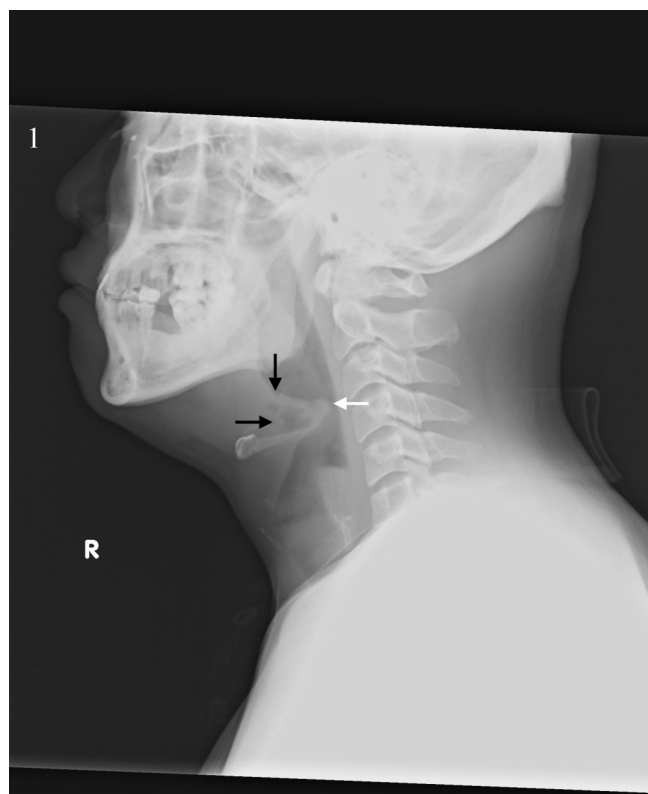


Figure 1. Signs seen on the lateral view of the neck were loss of the fold between the tongue base and epiglottis (vertical black arrow) and air bubbles (horizontal black arrow) superimposed on a rounded configuration of the epiglottis (horizontal white arrow).

initiated without intubation because there were no signs of respiratory distress.

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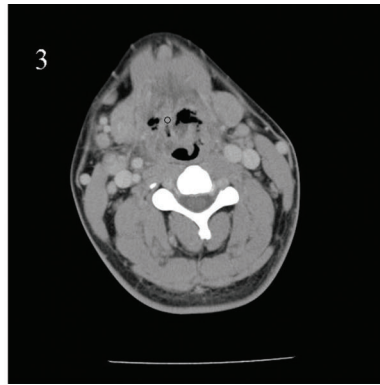


Figure 2. Direct laryngoscopy revealed a swollen epiglottis (white arrow) and severe swelling (black hollow circle) between the tongue base and the epiglottis.



Figure 3. The axial view of the neck computed tomographic scan depicted a swollen epiglottis with air bubbles in the heterogeneous lesion (black hollow circle) consistent with acute emphysematous epiglottitis.

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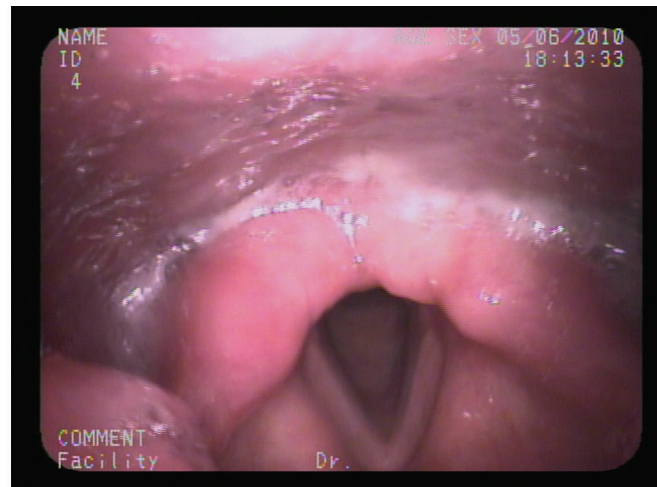
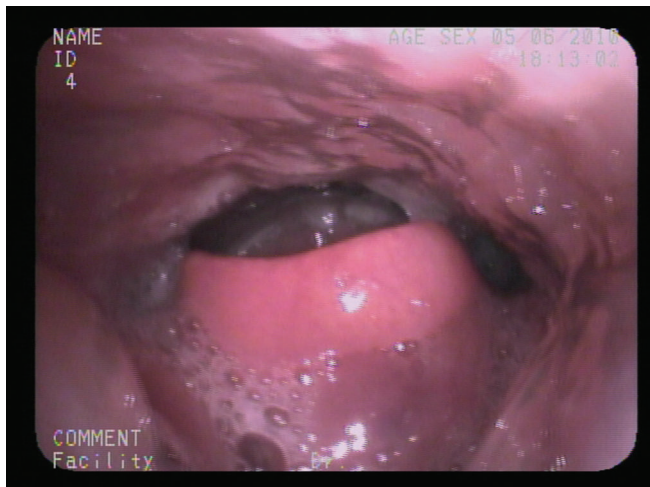


Figure S1. Direct laryngoscopy demonstrated a significant reduction in the swelling of the epiglottis and visible vocal cords after treatment with antibiotics and dexamethasone for 3 days.