

Acute epiglottitis presenting as the sensation of a foreign body in the throat

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A 49-year-old man presented with dysphagia and the sensation of a foreign body in the throat, after he had swallowed chicken meat that contained bones during the previous evening. There were no respiratory symptoms. A plain lateral soft-tissue X-ray of the neck and oesophagogastroduodenoscopy showed a grossly swollen epiglottis. His condition improved rapidly with intravenous antibiotic therapy. As acute epiglottitis may be a sudden life-threatening condition, a high index of suspicion should be maintained for patients who present with an obstructive sensation in the throat.

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Introduction

Acute epiglottitis is a relatively uncommon disease in both children and adults.^{1,2} It is an acute inflammation of the supraglottic region of the oropharynx, epiglottis, vallecula, arytenoids, and aryepiglottic folds. Because the mucosa of the epiglottic region is loose and vascular, its inflammation, irritation, and allergic response may rapidly cause oedema and vascular engorgement. This life-threatening condition may result in complete upper-airway obstruction and sudden death.¹ The importance of recognising acute epiglottitis in adults has recently been stressed.² Emergency physicians must be aware of the varied ways in which acute epiglottitis can present, and they should always maintain a high index of suspicion.

Case report

A 49-year-old man presented to the Accident and Emergency Department of the North District Hospital in the morning in August 1999 because of mild dysphagia and the sensation of a foreign body in the throat when he awoke that morning. He had swallowed chicken meat that contained bones during the previous evening. The patient was afebrile and his blood pressure and heart rate were normal. Physical examination of the throat revealed no foreign body, and an X-ray was not taken. He was discharged home with

instructions to return if symptoms persisted or if a fever developed.

The patient reattended that evening because of worsening dysphagia. By then, he could tolerate fluids but not solid food. He was afebrile and had no respiratory symptoms. His vital signs were normal: blood pressure, 135/86 mm Hg; heart rate, 84 beats per minute; oxyhaemoglobin saturation (SpO₂), 99% in room air; respiratory rate, 14 breaths per minute; and oral temperature, 36.5°C. Physical examination of the throat again revealed no foreign body. A lateral soft-tissue neck X-ray was taken, but no radio-opaque foreign body was visible. There was, however, a swollen epiglottic shadow (Fig 1), which the attending physician missed. The patient was discharged home with an urgent appointment for endoscopy the next morning.

When the patient presented to the endoscopy unit, his symptoms were found to have persisted, and he had a low-grade fever (tympanic temperature, 37.5°C) and slight hoarseness. There was no drooling of saliva. The respiratory rate was 18 breaths per minute, and the blood pressure, heart rate, and SpO₂ were normal. As the patient had no respiratory symptoms and as there was still a possibility of foreign body obstruction, oesophagogastroduodenoscopy was performed with pulse oximetry monitoring. The findings included a grossly swollen and globular epiglottis (Fig 2), obliteration of the left vallecula, and oedematous aryepiglottic folds, especially on the left side. However, the laryngeal lumen was still patent. No foreign body was found. The patient was immediately given oxygen therapy and intravenous ceftriaxone, while pulse

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Fig 1. Neck X-ray showing swollen epiglottis (anteroposterior diameter, 2.39 cm)

oximetry monitoring was continued. His condition improved rapidly and the fever subsided the same evening. An endoscopic examination was performed 2 days later and confirmed near-complete resolution of the symptoms. He was discharged home with a 5-day prescription of cefuroxime axetil 500 mg twice daily, and he was found to be symptom-free 5 days later.

Discussion

Acute epiglottitis is an acute inflammation of the supraglottic structures. An infection with *Haemophilus influenzae* or Group A streptococci is the most common cause in adults. Less common aetiological agents are other bacteria such as *Pneumococcus* species, *Mycobacterium* species, or *Bacteroides melanogenicus*.³



Fig 2. Endoscopic view of the swollen epiglottis

Other causes include infection with herpes simplex virus or *Candida* species,⁴ direct trauma,⁴ thermal injury (including smoking illicit drugs),⁵ and caustic injury.⁵ Ingestion of a foreign body or the sensation of a 'lump in the throat' have also been reported as presenting symptoms of acute epiglottitis.^{1,6} However, no foreign body has ever been found in these cases, thus suggesting that acute epiglottitis is a complication of ingested foreign body or a 'distracting' symptom resulting from the underlying condition. Further study is necessary to clarify this issue. When a patient presents with a history of foreign body ingestion, the possibility of acute epiglottitis should be borne in mind. In this case, the patient was discharged twice from the accident and emergency department without any suspicion of epiglottitis. Fortunately, the patient's clinical course was uneventful.

Acute epiglottitis is uncommon in adults.^{1,2} It is probably more common than is generally appreciated,⁷ and it may have a similar prevalence to epiglottitis in children.⁸ Adult acute epiglottitis is mainly a disease of men aged in their 50s. It is different from the paediatric form of the disease, in that an organism is less commonly identified, the clinical course is more gradual, airway compromise is less common, and conservative airway management can be successful in selected patients.⁹

The most consistent presenting symptoms of acute epiglottitis are sore throat and dysphagia. Other symptoms and signs include fever, tachycardia, toxic appearance, hoarseness, and drooling of saliva. Dyspnoea, inspiratory stridor, and cyanosis are strong predictors of airway obstruction. Acute epiglottitis should be suspected in all patients with a sore throat and dysphagia, especially if the symptoms seem out of proportion to pharyngeal findings.⁷ Diagnosis can usually be established by lateral soft-tissue radiography of the neck.^{7,9,10} Indirect, direct, or flexible fibreoptic laryngoscopy are the most accurate investigations, and they are not associated with any complications.^{7,9}

Acute epiglottitis may become fatal if the diagnosis is delayed.¹ There is a wide spectrum of severity of presentation, and the clinical course may be unpredictable. In adults, however, the disease is often benign. Adults who present without respiratory symptoms may be monitored safely in an intensive care setting, as long as provision is made for tracheal intubation or tracheostomy, should respiratory distress become evident.^{9,11} Prophylactic intubation and intensive care are not warranted in all patients. An early complaint of

dyspnoea may distinguish between patients requiring invasive airway management and close observation.¹¹ Treatment consists of close observation, maintenance of a patent airway, use of humidified oxygen, and intravenous administration of an antibiotic.⁷

In conclusion, this case report illustrates that vigilance should be maintained in patients who present with the sensation of a foreign body in the throat. When the lateral neck X-ray is viewed, attention should be given to the soft-tissue shadow of the epiglottis and radio-opaque densities in the region of retrotracheal soft tissue.

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