

ASYMPTOMATIC EPIGLOTTIC CYST: A RARE CAUSE OF UNANTICIPATED DIFFICULT INTUBATION

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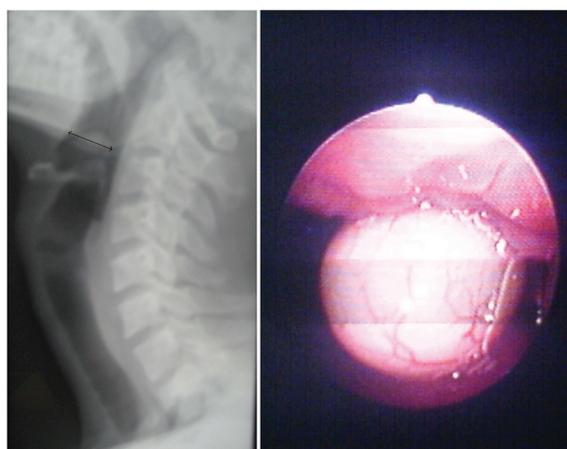
Abstract

Cysts of epiglottis are rare. Following induction of anesthesia, asymptomatic cysts may lead to unanticipated difficulty in ventilation or intubation or both and can be potentially life threatening in such situations^{1,2}.

Case Report

A 22 year old male diagnosed with acute appendicitis was planned for emergency appendicectomy. Since a year, he was on regular inhalational salbutamol therapy for bronchial asthma. Airway examination was unremarkable. Anesthesia was induced with thiopentone and neuromuscular blockade achieved with vecuronium. No difficulty was encountered in mask ventilation. However on direct laryngoscopy an approximately 3 cm x 3 cm globular yellowish swelling was seen arising from vallecula and involving the epiglottis. The cyst completely obstructed the view of the laryngeal inlet. Mask ventilation was resumed with 100% oxygen. Direct laryngoscopy was again attempted with a Macintosh 4 blade by introducing the blade beyond the lesion. With optimal external laryngeal maneuver, it was possible to visualize the posterior commissure of the laryngeal inlet. A 7.0 mm cuffed tracheal tube was passed swiftly and airway secured. At the end of surgery, anesthesia was discontinued. Neuromuscular blockade was reversed and trachea extubated, once the patient was awake. No respiratory difficulty ensued postoperatively. Subsequent course in hospital was uneventful. Further evaluation with soft tissue X-ray of the neck and indirect laryngoscopy by otorhinolaryngologist (Fig. 1) revealed an epiglottic cyst.

Fig. 1
Lateral neck radiograph showing the soft tissue shadow of the epiglottic cyst (black arrow) [left]; fiberoptic endoscopic view of the epiglottic cyst [right].



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Laryngeal cysts have been studied and classified by site, content and histology^{3,4} of which 10% are epiglottic⁴. A majority of the epiglottic cysts presented with stridor, failure to thrive (in newborn), cough, dysphagia and foreign body sensation. Asymptomatic epiglottic cysts are usually only discovered incidentally during routine otolaryngological examination, direct laryngoscopy during induction of general anesthesia or at post mortem. So, the actual incidence of asymptomatic epiglottic cyst is unknown. Epiglottic cysts could produce potential life threatening situations by causing difficult to ventilate and difficult to intubate scenarios after induction of general anesthesia as reported previously^{5,6}. These situations were managed by awakening the patient⁵ after difficulty was encountered and by using flexible fibreoptic bronchoscope to aid intubation⁶. Although we encountered difficulty intubating the trachea in this patient, mask ventilation was possible. In a patient

with known epiglottic cyst the method of choice for securing the airway is awake fibreoptic intubation.

This patient had no symptoms suggestive of a laryngeal cyst. However on direct questioning later on, he did admit to occasional feeling of respiratory obstruction on deep inspiration. There has been one report of laryngeal cyst masquerading as bronchial asthma⁷. It is a possibility that our patient was also earlier misdiagnosed as bronchial asthma. Patients with signs and symptoms of any respiratory pathology should be thoroughly evaluated, by the attending anesthesiologist, through specific symptom directed questioning. In case of suspicion of any upper airway pathology further evaluation by indirect laryngoscopy should be performed. Such unsuspecting ways in which laryngeal cysts present emphasizes that the anesthesiologist should have a high level of suspicion for any upper airway pathology, particularly in patients presenting with history of airway disease.

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