

VIDEOS IN EMERGENCY MEDICINE

Airway

Uncommon anatomical variation of an epiglottis encountered during emergent endotracheal intubation

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1 | PATIENT PRESENTATION

This video highlights an omega-shaped epiglottis (OSE) encountered during video laryngoscopy for an adult patient undergoing endotracheal intubation (ETI) in the emergency department (ED). The patient's

anatomy was not known before the laryngoscopy attempt. An OSE is a unique anatomical variation that features the lateral folds of the epiglottis curling acutely inward toward the posterior hypopharynx, often fully or partially obscuring a normal glottic opening. Historically, OSE is associated with pediatric laryngomalacia¹ and, occasionally,



VIDEO 1 Omega-shaped epiglottis encountered during video laryngoscopy for an adult patient undergoing endotracheal intubation.

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adult obstructive sleep apnea.^{2,3} However, many patients are often asymptomatic. The incidence of OSE found during adult ED intubations is unknown, but it is not a rare finding and should be anticipated by emergency physicians because it can make mask ventilation and ETI difficult.

2 | DIAGNOSIS

2.1 | Omega-shaped epiglottis

The presence of an OSE often makes achieving optimal glottic exposure difficult as it is not easily manipulated anteriorly following engagement of the glossoepiglottic fold when using a curved blade for laryngoscopy. Failure of this standard approach is highlighted in Video 1; the folds remain flexed inward regardless of appropriate lifting and forward force with the blade tip properly positioned in the vallecula. Emergency physicians can augment their technique with strategies outlined by Dr. Richard Levitan.⁴ A bougie-assisted strategy will allow for easier access between the narrow folds of the OSE and into the glottic opening. Additionally, we encourage the strategy of overriding the epiglottis entirely and using the curved blade tip to lift the OSE upwards with a

technique usually reserved for straight laryngoscope blades, which has been described elsewhere.⁵

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