

## VIDEOS IN EMERGENCY MEDICINE

## Airway

# A difficult trauma intubation without the usual landmarks

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Previous presentations: None.

## 1 | CASE PRESENTATION

An 18-year-old male was involved in a high-speed motor vehicle accident. The patient was found 50 ft from the accident scene. Facial lacerations and bleeding from his mouth were noted. The patient's mental status was altered. Because of concern for airway protection, emergency medical services performed rapid sequence intubation on scene. During video-assisted laryngoscopic intubation, normal airway anatomy was found to be disrupted (Video).

## 2 | DIAGNOSIS

*Traumatic avulsion of the epiglottis.*

The video demonstrates successful endotracheal intubation despite the loss of usual airway landmarks secondary to traumatic avulsion of the epiglottis. During intubation, one would normally expect to see the epiglottis posterior to the base of the tongue. In this case, the epiglottis is displaced superiorly and laterally. At the end of the video, the avulsed epiglottis is visualized obscuring the entire field of view. In the emergency department the patient's facial computed tomography scan demonstrated extensive facial fractures including temporomandibular joint fracture-dislocation, a type II odontoid fracture, and a foreign body in the hypopharynx area (avulsed epiglottis).

Accounting for 1 in 30,000 ED visits, laryngotracheal trauma is an infrequent occurrence. Despite this, it remains the second leading cause of death among head and neck trauma patients.<sup>1</sup> Epiglottis

avulsion, a rare form of laryngeal injury, presents a unique challenge for those managing the emergent airway. Traditional intubation techniques can be challenging, as the epiglottis serves as a reliable landmark for laryngeal entry. As in this case, the most important goal in patient management is to first secure the airway.<sup>2</sup>

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## REFERENCES

1. Lee WT, Eliashar R, Eliachar I. Acute external laryngotracheal trauma: diagnosis and management. *Ear Nose Throat J.* 2006;85(3):179-184. <https://doi.org/10.1177/014556130608500315>
2. Moonsamy P, Sachdeva UM, Morse CR. Management of laryngotracheal trauma. *Ann Cardiothorac Surg.* 2018;7(2):210-216. <https://doi.org/10.21037/acs.2018.03.03>

## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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