

An Atypical Mechanism of Thyroid Cartilage Fracture

Jack Grossweiler, Andrew Friedman, Michael Scharf, Matthew K. Nguyen, Jory P. Parson, Alexander Axelrad

Abstract

Background: Laryngeal fractures require significant force of impact. In patients with blunt laryngotracheal trauma, traffic accidents are the cause of 90% of cases with fracture, dislocation, or separation. Additional causes of laryngeal trauma include sports injuries and hanging injuries. Fracture of the thyroid cartilage is the most commonly encountered lesion.

Case presentation: This case reports on a 44-year-old male who presented as a trauma activation after falling down the stairs with new-onset hoarseness. Computed tomography (CT) of the neck demonstrated acute left sided thyroid cartilage fracture, which was confirmed on direct laryngoscopy in addition to soft tissue swelling. No operative management was required. Corticosteroids were utilized for reduction of laryngeal edema. The patient was discharged with voice rest and outpatient follow up.

Conclusion:

Thyroid cartilage fractures are a form of laryngotracheal trauma, which are most associated with blunt trauma, as seen in motor vehicle collisions, in addition to direct traumatic insults to the laryngeal cartilage. Traumatic injury patterns can include sport related accidents, assault, or hanging related injuries. The thyroid cartilage fracture described in our case report was not associated with the aforementioned mechanisms of injury. This emphasizes that laryngotracheal trauma can occur with atypical injury patterns and appropriate consideration should be maintained during evaluation.

Key words

Trauma, Laryngology, Thyroid Cartilage, Laryngeal Fractures, Neck Injuries