

Abstract

INTRODUCTION: In the coagulopathic patient, the larynx is not often recognized as a possible site of bleeding diathesis. However, the larynx is capable of having unusual manifestations of coagulopathies even without trauma in the coagulopathic patient.

METHODS: Report of two cases and review of the literature

RESULTS: Two patients presented to our institution with hoarseness, dysphagia, mild airway obstructive symptoms and known coagulopathies. Flexible fiberoptic laryngoscopy revealed laryngeal hemorrhage. Patient history suggested that neither patient had sustained recent trauma. Ultimately, both patients were primarily treated with conservative measures, including rapid reversal of coagulopathy, voice rest, and proton-pump inhibitors without any need for procedural intervention or acute airway management. Both patients resolved their laryngeal hemorrhages and returned to their normal voices on subsequent visits.

CONCLUSIONS: Head and neck manifestations of coagulopathies are a known entity that frequently requires procedural management by otolaryngologists. However, the larynx as the solo manifestation of bleeding diathesis in a coagulopathic patient without direct trauma has not been clearly reported. This process requires early diagnosis and management by an otolaryngologist.

We report an unusual case of laryngeal bleeding diatheses without prior traumatic injury and subsequent medical management that prevented airway collapse.

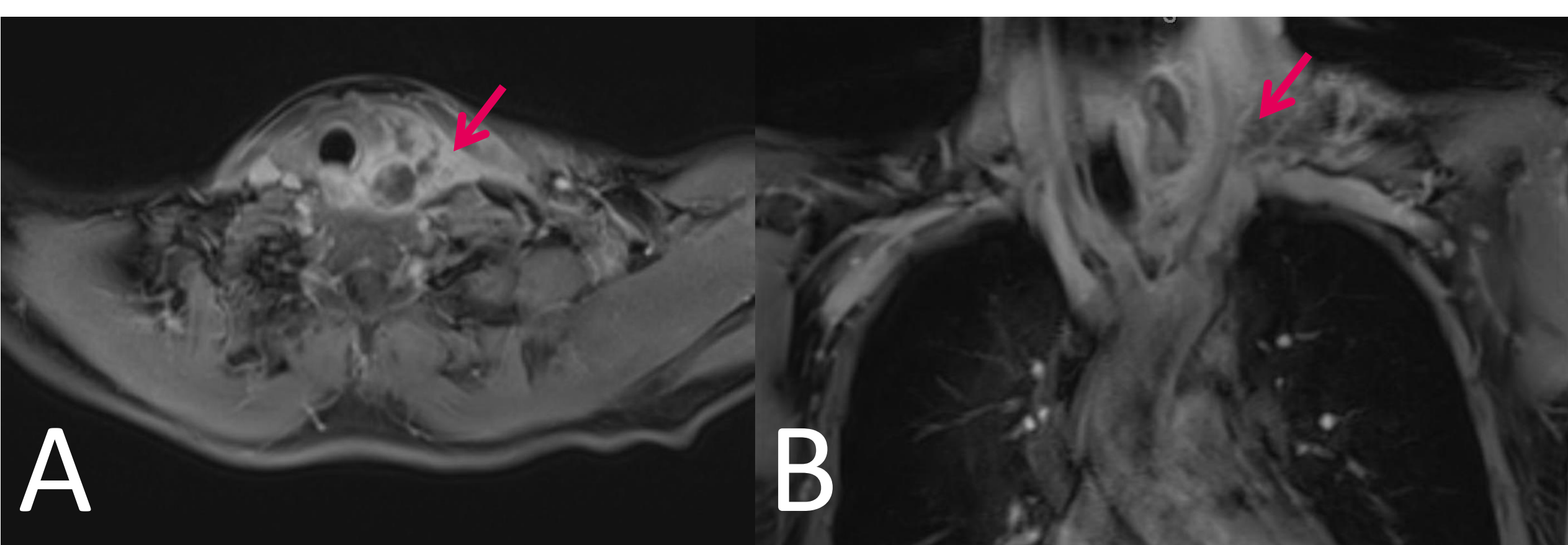


Figure 1.

A. Axial T1 MRI post contrast imaging of the neck reveals 2.1 x 1.9 cm mass just above the level of the thoracic inlet (arrow).

B. Coronal T1 MRI post contrast reveals mass effect on the trachea and esophagus (arrow) which are displaced to the right with reactive inflammation involving the wall of the trachea. There are also changes of reactive esophagitis and inflammatory changes extending inferiorly along the esophagus.

Case

In January 2016, 2 previously healthy men presented to our institution for management of acute voice changes and neck swelling in the setting of known coagulopathies.

Firstly, a 73 year-old male presented to our institution for evaluation for suspected mediastinitis. The patient was transferred from a community hospital for increased level of care. The patient had noted “flu-like” symptoms in the preceding five days with increased globus sensation, dysphagia, and odynophagia. His hoarseness had notably worsened in the preceding 24 hours. Ultimately, the patient elected to visit his community hospital emergency department due to development of ecchymoses extending from his submentum to his chest. History revealed that the patient had not had any recent traumatic injury. Of note, the patient was on clopidogrel after placement of a coronary drug-eluting stent 6 months prior to presentation. Magnetic resonance imaging (MRI) of the neck and chest with contrast (Figure 1) was performed which revealed extensive soft tissue hematoma in the lateral left neck and mediastinum. The inpatient otolaryngology consult service was consulted for evaluation of the airway due to persistent hoarseness, odynophagia, and dysphagia. Flexible fiberoptic laryngology revealed edema and ecchymosis of the left pharyngeal wall, fullness in the left pyriform sinus, and hemorrhage of the left true vocal cord (Figure 2A). Acutely, his coagulopathy was reversed with fresh frozen plasma. Over the following days, the patient’s chest ecchymoses notably improved, as did his hoarseness. He remained on voice rest for one week and anti-reflux therapy. His laryngeal hemorrhage also resolved on follow-up examination in the clinic.

Secondly, a 27 year-old male with known Hemophilia B presented to our institution with right sided neck swelling, odynophagia, and hoarseness that began acutely after eating steak. Patient history also revealed no previous trauma. On flexible fiberoptic laryngoscopy, he was noted to have a hematoma of the right lateral pharyngeal wall that tracked down the aryepiglottic fold (Figure 2B). This patient was also managed conservatively with rapid reversal of coagulopathy with the transfusion of Factor IX, and ultimately did not require procedural management of the airway. His hematoma also resolved on future examinations.

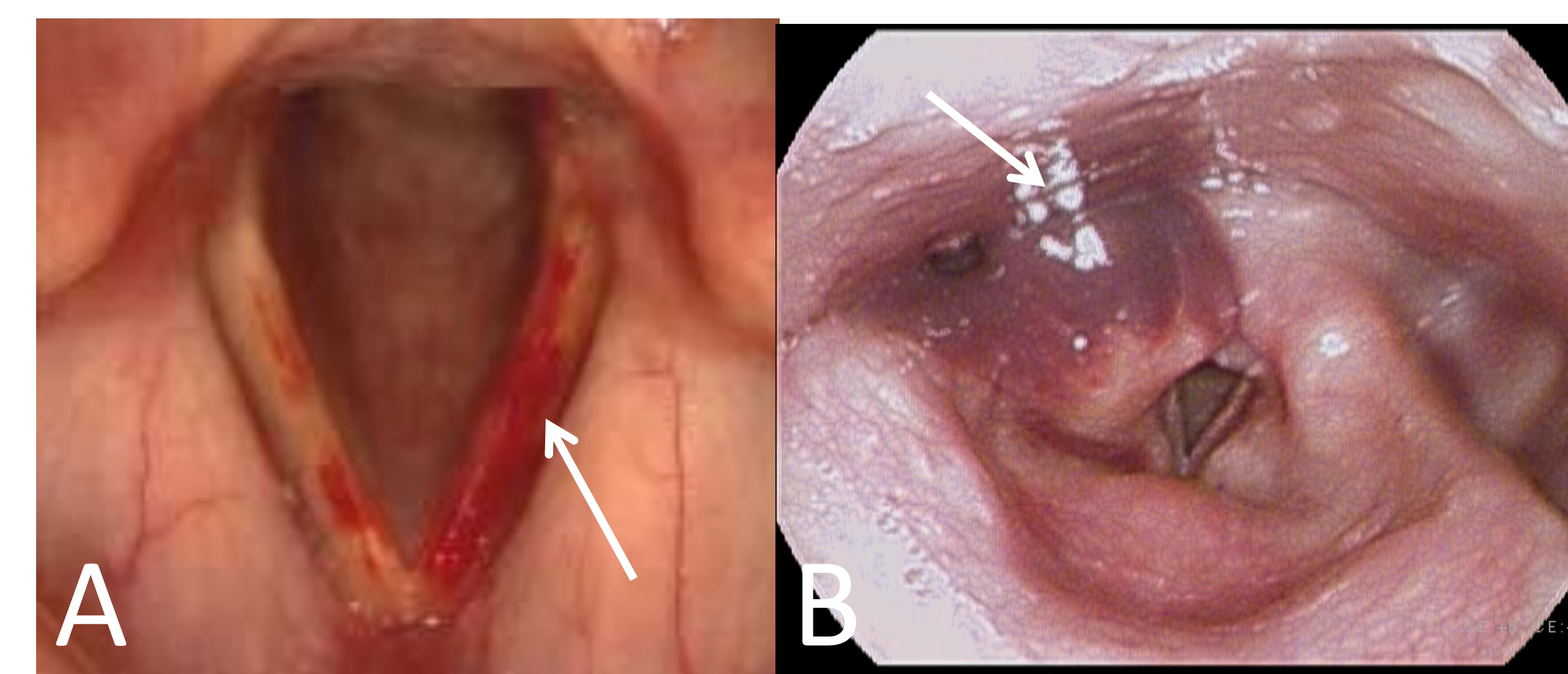


Figure 2.

A. Flexible fiberoptic laryngoscopy of the larynx reveals hemorrhage under the epithelium of both vocal folds, left greater than right (arrow).

B. Flexible fiberoptic laryngoscopy of the larynx reveals hemorrhage along the right aryepiglottic fold (arrow).

Discussion

Anticoagulants are the mainstay of therapy for the acute and long term prevention of numerous thromboembolic disorders. The current US prevalence estimate of Americans on anticoagulation and antiplatelet medication is almost 12 million persons. As such, the incidence of complications as a result of blood thinning medications continues to increase as more indications for the use of oral anticoagulant and oral antiplatelet medications are developed. In the cases presented, there was no traumatic or significant incident that preceded the sudden development of laryngeal hemorrhage. Moreover, both patients could not be permanently reversed due to the nature of coagulopathy and the indication of the oral antiplatelet medication. Interestingly, despite this, neither patient’s laryngeal hematoma created enough supraglottic or glottic obstruction to cause stridor or require procedural or surgical management of the airway. We attribute this to the rapid acute reversal of the coagulopathy and the avoidance of any additional potentially traumatic interventions.

Conclusion

Although laryngeal manifestations of coagulopathies are less commonly noted, they remain significant due to the potential of airway obstruction and subsequent compromise. In these specific patients, otolaryngology played an important role of diagnosis, management, and follow-up of the isolated laryngeal manifestation of the coagulopathy.

References

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Contact:

Name: Saranya Reghunathan, M.D.
 University of Arizona College of Medicine
 Department of Otolaryngology
 Email: sreghunathan@oto.arizona.edu