



A Pulsating Internal Carotid Artery Aneurysm in Pharynx: An Airway Challenge

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A 47-year-old female patient presented with a 6-month history of a foreign body sensation in the throat, difficulty in swallowing, and change in the quality of the voice. She was managed as a case of chronic tonsillitis but had little relief. On further evaluation, her magnetic resonance imaging scan of neck revealed an aneurysmal dilatation of the left cervical internal carotid artery (ICA) of size $3.4 \times 3.1 \times 2.7$ cm with partially thrombosed lumen indenting on the nasopharynx/oropharynx (►Fig. 1A). She had no prior history of episodes of loss of consciousness, vision disturbances, weakness of any part of body, or trauma to neck. She was diagnosed to have a mycotic aneurysm of left ICA.

The patient was posted for aneurysm trapping under general anesthesia. On physical examination, the patient had a Glasgow coma score of 15/15 and stable vitals. Patient's airway assessment revealed modified Mallampati score 1 with a normal mouth opening, neck movements and thyromental and sternomental distances. On airway examination, a pulsating mass (aneurysm) was visible near the left peritonsillar fossa that was pushing the uvula to the opposite side (►Fig. 1B). The anticipated risks during intubation of such cases involve trauma to the aneurysm and torrential bleeding. The availability of current airway gadgets has given us many choices to make in this scenario, but the choosing the best technique was a challenge. We did not choose flexible fiberoptic technique as it usually requires the use of adjuncts, such as the oropharyngeal airway or bite block which may cause pressure on pharyngeal space. Direct laryngoscope and videolaryngoscope have the field of vision limited to the glottis and during the tube insertion it may hit the pharyngeal wall. To troubleshoot this, we can make use of devices like a rigid or a flexible fiberoptic bronchoscope under videolaryngoscopic view so that we can visualize the passage of the tube through the pharynx into the glottis.

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In this case, we used a 3.5 mm rigid Bonfils fiberscope (Karl Storz, Tuttlingen, Germany) guided by videolaryngoscope (Karl Storz, Tuttlingen, Germany) (►Video 1). By using this technique, we could see the pulsating aneurysm and avoid any injury to it and a polyvinylchloride (PVC) endotracheal tube size 7.0 was easily passed into the trachea with double confirmation in first pass. PVC tube was selected over the flexometallic tube as it has been shown that the success rate of intubation is better with PVC tube under videolaryngoscopic view with similar rates of airway trauma.¹ Although both rigid and flexible fiberoptic scope could be used in this situation under videolaryngoscope guidance, we felt that using a rigid bronchoscope would provide us better control over the instrument.

Postsurgery, a gentle suction was done under laryngoscopic view and the patient was extubated. Due care was taken to avoid bucking and injury during suction and extubation. Mycotic ICA aneurysms are associated with significant mortality and morbidity. Complications include rupture, cataclysmic bleeding, airway compromise, stroke, and cranial nerve palsies.^{2,3} In patients with intraoral or intrapharyngeal extension, airway edema and compromise can occur. Hence, anticipation, proper evaluation, and preparation are mandated in such cases.

To conclude, combined use of a bronchoscope (rigid or flexible fiberoptic) and videolaryngoscope may enhance the first pass success of endotracheal tube and avoid trauma to the airway.

Video 1

Intubation technique. Online content including video sequences viewable at: <https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0043-1770779>.

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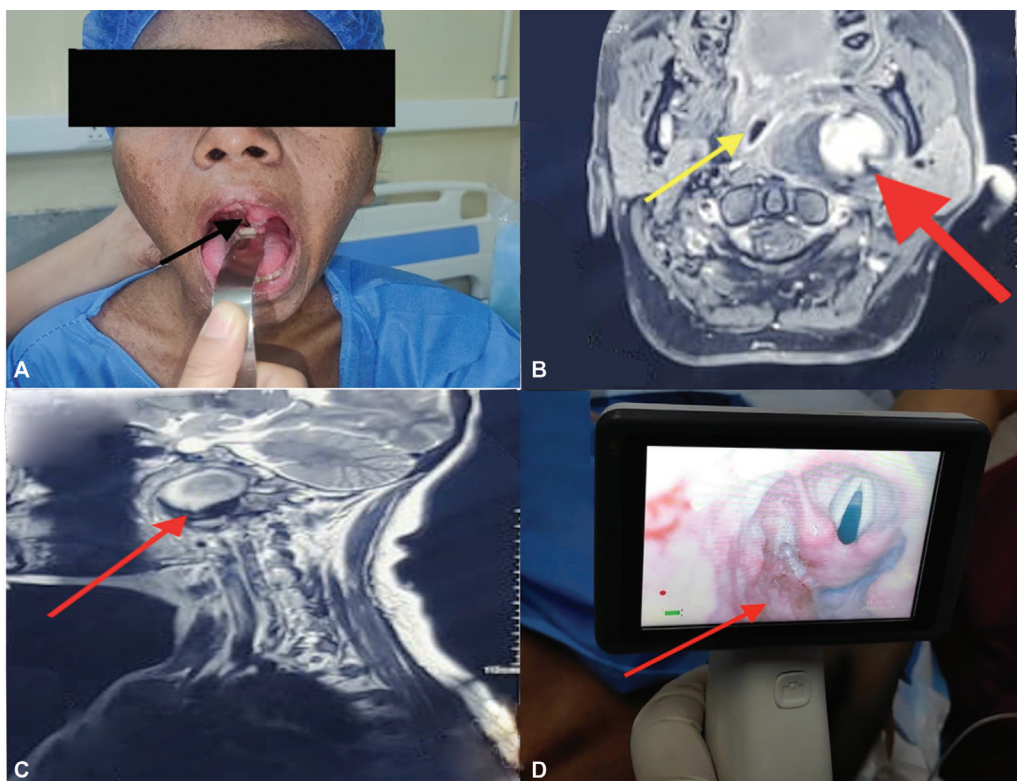


Fig. 1 (A) The presence of mass (arrow). (B) T1 postcontrast axial section magnetic resonance imaging (MRI) showing large enhancing lesion (red) in left submandibular parapharyngeal space with surrounding heterogeneity and collection extending into the tonsillar fossa causing compression displacement with narrowing of the nasopharynx (yellow). (C) T2-weighted MRI showing heterogenous hyperintense lesion in relation to skull base with surrounding hypointensity along inferior aspect. (D) Laryngoscopic view of the patient showing the aneurysmal mass (red arrow).

Conflict of Interest
None declared.

References

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