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## Laryngoscopy-assisted fiberoptic intubation in an adult with a large vallecular haemangioma

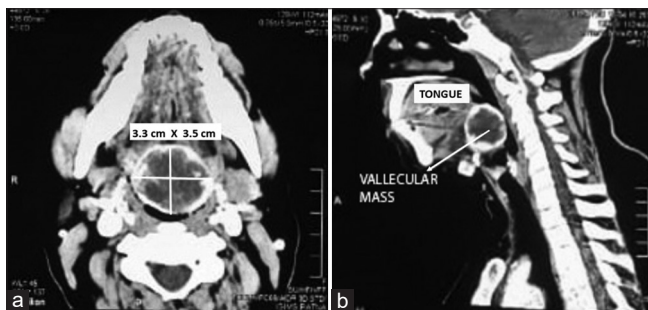
Sir,

Haemangioma is a common vascular benign tumour found in the head and neck regions. Its location in the laryngeal area is rare and could be a significant anaesthetic challenge.<sup>[1]</sup> We present a case of a 45-year-old 55-kg female admitted with complaints of throat pain for 3 years along with mild difficulty in breathing and swallowing for 6 months. Computed

tomography (CT) images showed a well-defined peripherally enhancing hypodense lesion, probably vascular, measuring about  $3.3 \times 3.5$  cm. It was situated at the base of the tongue at the antero-superior aspect of epiglottis between right and left glosso-epiglottic fold [Figure 1]. Preoperative flexible fiberoptic nasolaryngoscopy revealed a well-circumscribed mass arising from the vallecular region, pushing the epiglottis towards posterior pharyngeal wall, partially obscuring the glottic inlet. She was otherwise healthy with normal laboratory parameters. Informed consent for excision of mass, tracheotomy, presentation and publication of the case in medical literature was obtained. A difficult airway cart including a fiberoptic bronchoscope was also kept ready.

The patient was sedated using intravenous midazolam 1.5 mg and dexmedetomidine 50 µg infusion over 10 min. Oropharynx was anaesthetised using 10% lignocaine spray. Sevoflurane 2% in oxygen was initiated maintaining spontaneous ventilation. Fiberoptic-guided oral intubation via an endoscopy mask and jaw thrust was attempted as plan A for securing the airway. The location and dimensions of the mass made it difficult for us to negotiate the fiberoptic bronchoscope towards the laryngeal inlet. Direct laryngoscopy was then done but we could not visualise the vocal cords well enough to attempt intubation. A combination technique using direct laryngoscopy-assisted fibroscope-guided intubation was then planned. Laryngoscope would be used to gently push the mass as lateral as possible to create a window for the fibroscope to negotiate the laryngeal inlet. No neuromuscular blockade drugs were given. After ensuring relaxation of the lower jaw, direct laryngoscopy by Macintosh blade was performed. A fiberoptic bronchoscope was held by the second anaesthesiologist with a 6.5-mm-sized endotracheal tube preloaded on this fibroscope. Tracheal intubation was thus performed under vision. Extubation is a challenge in such cases for fear of bleeding and secondary haemorrhages. Haemostasis must be confirmed by the surgeons before considering extubation. Postoperative intensive monitoring with facilities and expertise for emergency airway management thus becomes important.

Vallecular masses mostly present as cystic lesions in infants and children.<sup>[2]</sup> Airway management strategies change based on the location. Cystic lesions have been managed by authors by aspiration.<sup>[3]</sup> The gold standard for the management of vallecular masses is awake fiberoptic intubation.<sup>[4]</sup> Awake fiberoptic intubation in the presence of a vascular lesion as in



**Figure 1:** CT Scan of neck showing large vallecular mass situated at the base of the tongue at the antero-superior aspect of epiglottis between right and left glosso-epiglottic fold causing obstruction of oropharyngeal airway

our case could be traumatic and result in torrential bleeding. Another option available to us was to tracheostomise the patient; however, we believed that a trial of orotracheal intubation could significantly prevent morbidity. Since we could mask ventilate the patient, we decided to proceed with sedation and fiberoptic intubation and plan B was a combination of direct laryngoscopy and fibroscope-guided intubation technique. There are limitations to our technique. Good topical anaesthesia and/or local anaesthesia nebulisation should have been done in this case. A better approach then could have been awake oral FOB-assisted with direct laryngoscopy in a sedated patient using the spray as-you-go technique. We believe that by utilising the ability of a laryngoscope blade to manipulate the supraglottic mass we could negotiate around the obstruction using the fibroscope and subsequently intubate these patients. The authors have used conventional laryngoscopy as a rescue for fiberoptic-assisted tracheal intubation through nasal route in patients with the perilaryngeal oedema after rigid bronchoscopy.<sup>[5]</sup> In supraglottic vascular masses, the combination technique appears to be a good method to secure the airway.

#### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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#### Conflicts of interest

There are no conflicts of interest.

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