

Time to include video laryngoscope as a tool for extubation in difficult airway cases!

Sir,

Tracheal extubation is a critical time and a high-risk procedure. Exaggerated reflexes like laryngospasm and bronchospasm can lead to hypoventilation, hypoxia and negative pressure pulmonary oedema causing catastrophe on operating table post a successful surgery. On the other hand, inadequate airway reflexes can lead to aspiration.^[1,2] Extubation for patients who have undergone procedures on vocal cords is a tricky task due to airway injury and risk of laryngospasm due to the injury itself or from blood trickling. Now, there are guidelines laid down for extubation, both in routine and difficult cases, but these do not have a defined role for videolaryngoscopes.^[3]

Here, we would like to highlight the use of video laryngoscope (King Vision™ aBlade Video Laryngoscope from manufacturer AMBU) as a viable and alternative tool for safe extubation in 4 patients presenting with glottic and supraglottic pathology, in place of conventional laryngoscopy with Macintosh blade. Our 4 cases were in age group 25-60 years; presented for biopsy of vocal cord growth in three cases and supraglottic growth in one case, respectively. 2 patients were accepted in American Society of Anaesthesiology physical status class II and the remaining two in class III. A plan for difficult airway was prepared and patients were counselled and informed consent taken. Since the patients had presented for biopsy, the airway

plan was intubation and extubation under vision. All four patients were intubated using channelled video laryngoscope (King Vision™ aBlade Video Laryngoscope) and the surgery went off uneventfully.

The challenge was to achieve a safe extubation of adequately awake patients, under direct visualisation of glottis with stable haemodynamics. This comes under limb 3 of the AIDAA difficult extubation guidelines.^[3] After reversal of residual neuromuscular blockade, and once adequate tidal volume was achieved on pressure support ventilation, sevoflurane was discontinued. The leak test was performed in each case and once leak test was established, the trachea were extubated using King Vision™ aBlade Video Laryngoscope. To avoid any haemodynamic changes and possible trauma to the airway, extubation was performed under cover of intravenous lignocaine 1 mg/kg over 2 minutes. The use of video laryngoscope established complete visualisation of glottic aperture. The Endotracheal Tube (ETT) was removed till just above the vocal cords and cords were observed for collapse or any fresh bleeding for 30 seconds before complete removal of the ETT. There was no incidence of airway trauma, re-intubation, hypoxia or post extubation loss of airway in any of our four cases. Randomised controlled trial by Priyanka AS *et al.* demonstrated successfully the mobility of the vocal cords by two different video laryngoscopes in patients undergoing major neck and thyroid surgeries.^[4]

A fine assessment of the glottic aperture was provided by video laryngoscope with an optimal visualization of peri epiglottic structures and glottic aperture during the actual course of extubation. However, always remember reintubation of a failed extubation in such scenario renders intubation difficult and one has to switch immediately to difficult airway algorithm.

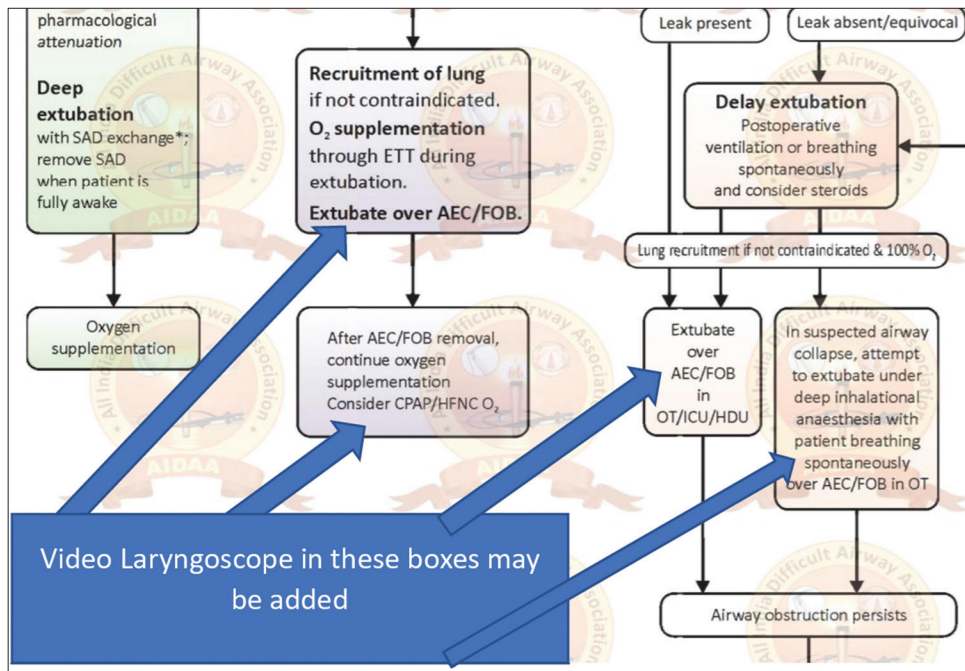


Figure 1: AIDAA extubation guidelines: place where to include the video laryngoscope

Attempt to bring these cases to light was to enable larger studies to assess the feasibility of using video laryngoscope assisted extubation in more difficult airway scenarios and later to look in to the possibility of inclusion of video laryngoscope in the difficult airway guidelines. It can come as an alternate tool in the algorithm wherever AEC or FOB are recommended [Figure 1].

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Conflicts of interest

There are no conflicts of interest.

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