

Letters to the editor

Intubation with simultaneous use of the GlideScope and the Trachlight

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To the editor: The failure to achieve an adequate laryngeal view with the GlideScope videolaryngoscope (GVL; Verathon Medical, Bothell, WA, USA) is rare and might lead to inability to intubate the trachea [1]. The authors present a case in which the GVL produced Cormack and Lehane grade 3 laryngeal exposure [2], and a Trachlight (TL; Laerdal Medical, Wappingers Falls, NY, USA) was used in addition to intubate the trachea. The combined use of a GVL and a TL has previously not been reported.

A 63-year-old, 72-kg male patient presented for aortic valve replacement and coronary artery bypass grafting. The patient had a small mouth opening (2.5 cm) and severely limited neck extension. A prior anesthesia record documented difficult endotracheal intubation, but easy mask ventilation. Before induction of anesthesia the patient was positioned on multiple blankets in the sniffing position. The difficult airway cart, a fiberoptic bronchoscope, and a GVL were in the operating room. Asleep GVL use was planned to minimize hemodynamic effects. Following intravenous induction, bag mask ventilation was easily achieved. GVL laryngoscopy provided a Cormack and Lehane grade 3 laryngeal exposure [2] and an intubation attempt failed. While a second anesthesiologist was preparing the fiberoptic bronchoscope, the first anesthesiologist quickly loaded a 7.5-French endotracheal tube (ETT) on a TL and made the decision to intubate the trachea using the GVL and the TL simultaneously. The TL was turned on and the device was inserted next to the GVL. Massive illumination prevented identification of any laryngeal structures on the GVL monitor once the TL came into view. The TL was turned off and the GVL monitor displayed the previous grade 3 view. The tip of the TL was then directed with video assistance underneath the epiglottis. The TL was turned on again and the typical light cone was seen transilluminating the neck of the patient. The internal stiff metal stylet was then pulled back and the ETT was then passed without resistance into the trachea.

Despite careful airway assessment, GVL laryngoscopy occasionally yields unexpectedly poor laryngeal views, thus leading to inability to intubate the trachea in 2%–15% of patients [1,3,4]. Angling a stylet with a 60° or a 90° curvature has been recommended [4,5]. Hung et al. [6,7] have recommended bending the TL stylet 70° to 90°. Therefore, the preferred intubation shape of the TL meets the criteria for GVL use [4–7]. The combination of the GVL and TL has not been assessed. Because of the high success rates of both devices [8], it can be assumed that using both instruments together would lead to a higher success rate of tracheal intubation, should one device alone fail. We chose the TL and not a fiberoptic bronchoscope, because the TL was more quickly assembled. In addition, it can be more easily transported and cleaned.

In this patient the GVL produced a poor laryngeal view. The light source of the TL was too bright for the GVL monitor and an adequate image was seen only after turning off the TL. Video guidance helped to direct the TL underneath the epiglottis, where the light was not affecting the video camera, since the epiglottis was blocking the light.

In conclusion, when using a combination of the GVL and TL, the latter should be inserted and the light turned on only if needed and after the tip of the lighted stylet has passed underneath the epiglottis, in order to avoid the light affecting the GLV monitor.

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After properly deidentifying the patient in this case report, an informed consent was not obtained in accordance with local VA IRB rules and regulations.

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