



Provider/patient conflict: is it time to reconsider the contraindication for videolaryngoscope use in a bleeding/soiled airway?

Timothy P. Turkstra, MD, B. Eng, M. Eng, P. Eng, FRCPC · William D. Regan, MD, MBA

Received: 1 September 2021 / Revised: 1 September 2021 / Accepted: 1 September 2021 / Published online: 28 September 2021
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Keywords laryngoscopy · intubation · bleeding · hemorrhage · hemoptysis

To the Editor,

We read with great interest the September Special Issue on Airway Management of the *Journal* and noted the timely consideration of aerosol precautions in many articles.¹ Our hospital policy recommends videolaryngoscopy (VL) for maximal provider safety because of infectious disease concerns such as COVID 19,² but VL is considered relatively contraindicated in the setting of a profusely bleeding airway because of potential camera contamination.³ Thus, optimal care may conflict with optimal provider protective strategies.¹

Despite limited clinical evidence, the Ducanto “suction-assisted laryngoscopy airway decontamination (SALAD)” direct laryngoscopy (DL) approach has been accepted as a method to manage the soiled airway^{4,5} (Figure).

Two studies have examined the effectiveness of VL vs DL in the soiled airway in the clinical setting.^{6,7} In a retrospective review of 4,626 intubations in an academic emergency department, Sackles *et al.* observed no difference in first-attempt success rate between the GlideScope® (Verathon Inc., Bothell, WA, USA) and DL in patients with a soiled airway.⁷ Similarly, Carlson *et al.*⁶ found similar success rates between VL and DL in their retrospective analysis of 325 intubations in patients

with large volume hematemesis secondary to gastrointestinal bleeds.

At London Health Sciences Center, this provider/care conflict was recently illustrated in a young COVID-19-suspect patient bleeding profusely from esophageal varices. The patient was anemic and hemodynamically unstable, prompting emergent intubation by the protected airway management team to facilitate Blakemore tube insertion.

Considering the conflict, the decision was made to prioritize provider safety and proceed with videolaryngoscopy. To minimize the potential for soiling of the videolaryngoscope camera, it was planned to have two suction apparatuses manned by adjacent respiratory therapists (RT) while the anesthesiologist secured the airway via VL. The backup plan was to insert a larger endotracheal tube (ETT) into the esophagus to provide an outlet for the blood, and intubate around this suctioned “esophageal vent.”

Two suction apparatuses and an additional backup suction were available. A McGRATH™ laryngoscope (Medtronic, Minneapolis, MN, USA) with several size 3 and 4 blades was available to backup the primary GlideScope (Verathon Inc, Bothell, WA, USA) size 3 (hyperangulated) laryngoscope. After paralysis, one suction catheter was introduced along with the GlideScope to “protect the camera.” This suction was then passed off to an RT. A second suction catheter was then inserted and delegated to the other RT. Although the videolaryngoscope required maneuvering to avoid the blood welling up from the esophagus, it appeared that its screen enabled the RTs to suction more effectively than when assisting DL because they could better optimize their position, facilitating a successful intubation.

T. P. Turkstra, MD, B. Eng, M. Eng, P. Eng, FRCPC (✉) ·
W. D. Regan, MD, MBA
Western University, London, ON, Canada
e-mail: turkstra314@gmail.com

Ducanto suction-assisted laryngoscopy airway decontamination approach to managing massive airway contamination

- Use rigid large-bore suction to initially decontaminate
- Perform laryngoscopy keeping blade superior against tongue away from fluid
- Advance suction tip into upper esophagus then wedge in place to left of the laryngoscope
- Use second suction as needed
- Rotate laryngoscope blade 30 degrees to the left to open blade channel
- Place endotracheal tube (ETT), inflate the cuff

Figure The suction-assisted laryngoscopy airway decontamination (SALAD) approach. Reproduced with permission from: Kovacs G, Sowers N. Airway Management in Trauma. Emerg Med Clin North Am 2018; <https://doi.org/10.1016/j.emc.2017.08.006>

Overall, we were impressed with how effective videolaryngoscopy-guided suctioning was compared with blind suctioning after suction was delegated by the intubator to grasp the ETT. There may be less of a conflict than perceived; we strongly recommend this technique be considered for intubating a soiled airway when infectious precautions are required. Furthermore, we suggest that it may be worth considering this technique even if aerosol precautions are not required, if any other predictors for difficult laryngoscopy¹ are present in combination with a soiled airway.

Disclosures None.

Funding statement None.

Editorial responsibility This submission was handled by Dr. Stephan K.W. Schwarz, Editor-in-Chief, *Canadian Journal of Anesthesia/Journal canadien d'anesthésie*.

Editor's Note The authors of the article: Can J Anesth 2021; <https://doi.org/10.1007/s12630-021-02007-0>, respectfully declined an invitation to submit a reply to the above letter.

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