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## Pharyngeal Wall Injury during Videolaryngoscopy-assisted Intubation

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77-YR-OLD woman was admitted to our intensive care unit after uncomplicated on-pump coronary artery bypass grafting. The anesthesiologist reported that direct laryngoscopy was impossible. Use of a videolaryngoscope (GlideScope®; Verathon Medical, IJsselstein, Netherlands) improved the laryngeal visibility. After repeated attempts, a standard endotracheal tube with an inner diameter of 7.5 mm was successfully inserted using the recommended Rigid Stylet® (Verathon Medical, IJsselstein, Netherlands). Slight intraoral bleeding after intubation was explained by nasogastric tube placement under dual antiplatelet and heparin therapy. No further problems were reported on admission.

During preparation for extubation, large oral and pharyngeal blood clots had to be removed, and an atypical tube position was noted. The tube perforated the palatoglossal arch and the right tonsil, as indicated by the arrow in the figure. Conventional extubation was considered too dangerous because of recent intubation problems and potential rebleeding from the perforation. The consultant otolaryngologist cut through the tissue-band, released the tube, and closed the mucosal wound surgically. The patient was eventually extubated without complications on the first postoperative day.

There are several reports on pharyngeal injuries after intubation using videolaryngoscopy. Mechanisms of injury include a blind-spot in the oropharynx, where the videolaryngoscope can hide the tube during advance-

ment and concentration may be focused on the videolaryngoscopy monitor before the stylet-reinforced tube becomes visible on the screen. 1-3 Therefore tube advancement should be directly visualized from the mouth until the tube has entered the hypopharynx, and thorough oral and pharyngeal inspection for airway trauma should be considered after difficult airway management.

## References

- 1. Leong WL, Lim Y, Sia AT: Palatopharyngeal wall perforation during Glidescope intubation. Anaesth Intensive Care 2008; 36:870-4
- 2. Dupanovic M: Maneuvers to prevent oropharyngeal injury during orotracheal intubation with the GlideScope video laryngoscope. J Clin Anesth 2010; 22:152-4
- 3. Magboul MM, Joel S: The video laryngoscopes blind spots and possible lingual nerve injury by the Gliderite rigid stylet-case presentation and review of literature. Middle East J Anesthesiol 2010; 20:857-60