Nasogastric tube insertion assisted with the AirwayScope™ in a patient with cervical spine instability

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To the Editor,

It has been shown that the AirwayScope™ (AWS; IMI Co., LTD., Koshigaya, Saitama, Japan), which is a newly developed videolaryngoscope consisting of a built-in monitor, camera, and disposable introducer, INTLOCK™, has a distinct advantage compared with the Macintosh laryngoscope when it is used in patients with cervical spine instability and/or restricted neck movement.^{1,2} The AirwayScope™ can also facilitate nasogastric tube insertion in patients with cervical spine instability.

An 82-year-old male patient, who had a predicted difficult airway due to a C₅ fracture dislocation and the use of the halo vest, was scheduled for surgical stabilization of a cervical spine fracture. Following application of routine monitors and preoxygenation with the halo vest in situ, anesthesia was induced with propofol 1 mg · kg⁻¹ *iv* and butorphanol 10 µg · kg⁻¹ *iv*, followed by vecuronium 0.1 mg · kg⁻¹ *iv*. After bag-mask ventilation with a face-mask using 3% sevoflurane in 100% oxygen at a fresh gas flow of 6 L · min⁻¹ for 3 min, the patient's trachea was intubated with a reinforced 8.0 mm endotracheal tube (Covidien, Mansfield, MA, USA) without difficulty, using the AirwayScope™. After correct endotracheal tube position

was confirmed, the airway was secured, and the AirwayScope™ was again inserted into the patient's mouth to obtain views of both the pharyngeal and laryngeal areas. Thereafter, a lubricated 16 Fr. nasogastric tube (Terumo Co., Shibuya-ku, Tokyo, Japan) was inserted via the left nostril until it reached the pharyngeal area (Fig. 1). The gastric tube was inserted easily under indirect vision without use of Magill forceps or additional maneuvers (Fig. 1).

We used the AirwayScope™ to facilitate nasogastric tube insertion in this patient, since other known maneuvers related to insertion, including forward displacement of the larynx, may cause compression of an unstable cervical spine.³ Consistent with our report, a previous study documented that another video laryngoscope, GlideScope™, successfully supported nasogastric tube insertion in surgical patients.⁴ We propose that using the videolaryngoscope to facilitate a nasogastric tube insertion may be more critical in patients with cervical instability, and that this maneuver may be effective to detect points where tube insertion could be interrupted (arytenoids, cartilages, and piriform sinuses).³

Conflicts of interest None declared.

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Fig. 1 Views are shown before (left) and during (right) nasogastric tube insertion with assistance of the AirwayScope™. Note that the gastric tube enters the hypopharynx just lateral to the arytenoid cartilage

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