

### Rescue intubation by combined use of video laryngoscopy and Bonfils fiberscope in patients with difficult airway

*To the Editor*

In an interesting case report, Boker<sup>1</sup> stated that rescue tracheal intubation by combined use of videolaryngoscopy and Bonfils fiberscope in patients with compromised airway was a novel technique. In fact, however, Van Zundert and Pieters<sup>2</sup> had reported use of this method in a patient with history of a known difficult intubation. Moreover, there are several aspects of this technique that need to be clarified. We believe that these issues are useful for others who would like to try intubation with this combined technique.

Other than the third case, this combined technique was actually used as rescue airway step after failed intubation with direct laryngoscopy in other 3 patients. Moreover, all 4 patients have airway bleeding that can affect the use of the Bonfils fiberscope. More importantly, they did not report the laryngeal views with Storz video laryngoscope. It has been shown that in patients with difficult direct laryngoscopy, a better visualization can be provided using Storz video laryngoscope.<sup>3</sup> After failed intubation with direct laryngoscopy, Storz video laryngoscope can also achieve a very high success rate of rescue tracheal intubation.<sup>4</sup> Thus, one of our questions is whether or not, combined use of Storz videolaryngoscopy and Bonfils fiberscope is beneficial for rescue airway management if the Storz video laryngoscope can provide good laryngeal view after failed direct laryngoscopy. We consider that this technique may be only suitable for patients with a bad laryngeal view using Storz video laryngoscope, such as in a case reported by Van Zundert and Pieters.<sup>2</sup>

In the Discussion section, Boker pointed out that in all described cases using a combination of a video laryngoscope, suction device, and Bonfils fiberscope is superior to the use of a video laryngoscope, a suction device, and a conventional tube. However, this is only an observable case report. Thus, this view is arbitrary and inconclusive. We believe that addressing this issue

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needs a randomized, controlled trial comparing the 2 techniques.

In the Methods section, Boker did not specify the type of Storz video laryngoscope used in the 4 patients. There are 3 different Storz video-laryngoscopes available. The older one, the V-MAC, consists of a laryngoscope, an LCD screen, a light source, and a camera control unit. The latest model, C-MAC, consists of only 2 parts, a laryngoscope and a monitor, connected via a single cable. Therefore, it is portable, more robust, and less expensive compared with the V-MAC. The C-MAC and V-MAC have the same blade shape as a standard Macintosh laryngoscope. The C-MAC d-Blade video laryngoscope, which is an extension to the C-MAC, has a half moon shaped blade, resulting in an overall higher angulation. Levitan et al<sup>5</sup> suggest that when a stylet is used with the C-MAC, shape of the stylet similar to that of direct laryngoscopy (straight-to-cuff, with a 35-degree "hockey-stick" bend) should be used. This is significantly different from the video laryngoscopes with angulated blades, in which much greater stylet bend angles (60-90 degrees) are often required to navigate a tube around the curve of the blade and to the glottis. Thus, we are concerned that when using the C-MAC d-Blade video laryngoscope with an extra curved blade, guiding the tip of the Bonfils fiberscope into the glottis may be difficult, because it is a rigid, straight device with a small curved tip (40 degrees).

Finally, the Bonfils fiberscope is not an instant useable device. Preparation of the device before use is important to obtain best intubation performance of Bonfils fiberscope. These include silicon spray lubrication on the scope, loading tracheal tube onto the scope stylet, connecting oxygen insufflation or suctioning device, using antifog solution to the lens, attaching camera and video monitor, focusing and orientating imaging system correctly, and so forth. This may not be a problem for the conventional intubation in the operating room, but it must be considered during emergency rescue intubation in patients with compromised airway. Perhaps, only elective management of difficult intubation is a better indication of this combined technique.

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*References*

1. Boker AM. A novel approach to manage patients with compromised airway. Videoscopic assisted retromolar intubation. *Saudi Med J* 2013; 34: 308-312.
2. Van Zundert AA, Pieters BM. Combined technique using videolaryngoscopy and Bonfils for a difficult airway intubation. *Br J Anaesth* 2012; 108: 327-328.
3. Aziz MF, Dillman D, Fu R, Brambrink AM. Comparative effectiveness of the C-MAC video laryngoscope versus direct laryngoscopy in the setting of the predicted difficult airway. *Anesthesiology* 2012; 116: 629-636.
4. Piepho T, Fortmueller K, Heid FM, Schmidtmann I, Werner C, Noppens RR. Performance of the C-MAC video laryngoscope in patients after a limited glottic view using Macintosh laryngoscopy. *Anaesthesia* 2011; 66: 1101-1105.
5. Levitan RM, Heitz JW, Sweeney M, Cooper RM. The complexities of tracheal intubation with direct laryngoscopy and alternative intubation devices. *Ann Emerg Med* 2011; 57: 240-247.

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