

mended conservative management. The patient was observed for several hours in the recovery room, his cardiovascular status was unchanged, and he was discharged from the hospital later that day. No additional episodes of asystole or bradyarrhythmias occurred during weekly ECT treatments over the following several months. The clinical presentation of our patient and those described in other studies<sup>1,2</sup> emphasize that ECT may produce asystole at any point during the course of serial ECT despite the use of almost identical anesthetic techniques, and provides further evidence suggesting that subsequent ECT may be safely conducted regardless of the occurrence of asystole or hemodynamically significant bradyarrhythmias.<sup>3-5</sup>

Elena J. Holak MD PharmD  
 John P. Scott MD  
 Paul S. Pagel MD PhD  
 Clement J. Zablocki Veterans Affairs Medical Center,  
 Milwaukee, USA  
 E-mail: paul.pagel@va.gov  
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## *Pentax-AWS® and tube selection*

To the Editor:  
 The Pentax-AWS® (Airway Scope®, AWS; Pentax Corporation, Tokyo, Japan) is a novel video laryngoscope designed to facilitate tracheal intubation under indirect vision. It provides a view of the glottis through a charge-coupled device camera on the built-in colour liquid crystal device monitor without

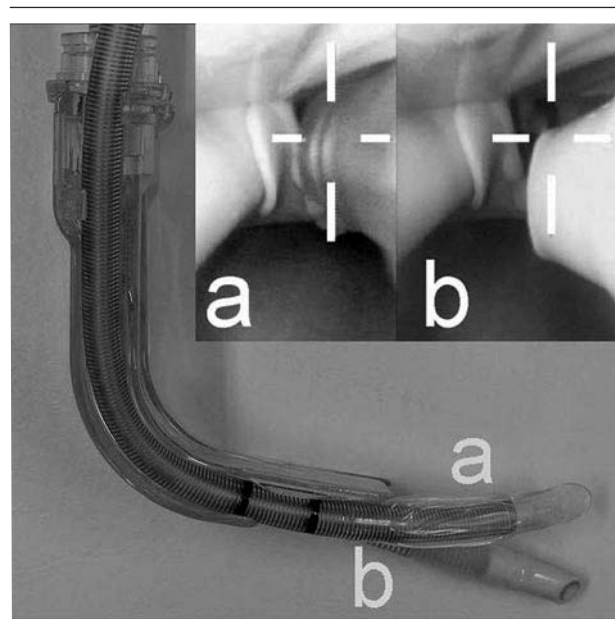


FIGURE Difference of endotracheal tube (ETT) direction comparing curved and straight tubes. A) curved reinforced ETT. B) straight reinforced ETT which often passes posterior to the glottis, potentially resulting in failed intubation.

requiring a direct line of sight from above the maxillary teeth past the base of the tongue, which is necessary for tracheal intubation with conventional direct laryngoscopy.<sup>1</sup>

One of the most important features of the Pentax-AWS which facilitates intubation is a target mark on the monitor, which indicates the direction of travel of the endotracheal tube (ETT) as it advances from the tube channel. Operators utilize this target mark during intubation, and start advancing the tube once the target mark has been aligned with the glottic opening.

Despite the advantages of this technique, we have often experienced failed intubation when using a straight reinforced ETT such as the laryngeal mask airway Fastrack™ ETT.

We now realize that this target mark is designated for pre-formed, curved tubes. The direction of ETT advancement from the tube channel differs between curved and straight ETTs (Figure). On the monitor, it can be seen that the straight ETT moves in a posterior direction, and not towards the centre of the target mark or the glottic opening. For surgery requiring a reinforced ETT, there may be a risk of failed intubation with the AWS when a straight ETT is chosen, despite standard positioning of the glottic opening and target mark on the monitor. To solve this

problem, we usually pass an introducer (“bougie”) into the trachea through the ETT under vision and then guide the straight ETT into the trachea – under vision, this does require an extra maneuver.

Akihiro Suzuki MD PhD  
Takayuki Kunisawa MD PhD  
Hiroshi Iwasaki MD PhD  
Asahikawa Medical College, Hokkaido, Japan  
E-mail: masuikasuzuki@yahoo.co.jp  
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### *In-line head and neck positioning facilitates tracheal intubation with the Airway Scope*

To the Editor:

The Airway Scope, a new videolaryngoscope for tracheal intubation, has an anatomically shaped blade that provides a view of the glottis through a non-line-of-sight view with minimal airway manipulation. In contrast, the conventional Macintosh laryngoscope requires certain airway manipulation for laryngeal exposure, which involves alignment of the oral, pharyngeal and tracheal axes. To align these three axes, a pillow is placed under the head to facilitate direct exposure of the larynx. With respect to the Airway Scope, the importance of such a step is not clear. We report here the results of a study performed on a manikin to describe the preferable head and neck positioning for laryngeal exposure using the Airway Scope. This evaluation was performed as a part of our previously reported investigation.<sup>1</sup> In all, 40 operators intubated a 7-mm tracheal tube into the trachea of a manikin (Airway Management Trainer, Laerdal Medical Japan). Intubations with the aid of the Airway Scope were performed in both an in-line head and neck position without a pillow and in the sniffing position with a pillow (occipital elevation by 7 cm). The mean time required for accurate instrumentation was significantly shorter in an in-line head and neck position ( $8.9 \pm 3.1$  sec) than in the sniffing position ( $14.0 \pm 10.8$  sec,  $P < 0.01$ ,  $\pm$  SD, paired  $t$  test). Our finding suggests that the device is particularly well suited for use in patients with an in-line head and neck position for proper airway management especially in

trauma patients with possible injury of the cervical spine where movement of the head and neck might be undesirable. Placement of a pillow under the head for the sniffing position during tracheal intubation with the Airway Scope does not seem to provide any advantage or speedier instrumentation.

Yoshihiro Hirabayashi MD  
Jichi medical University, Tochigi, Japan  
E-mail: yhira@jichi.ac.jp

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### *Failure of the Airway Scope to reach the larynx*

The Airway Scope (AWS) is a useful and possibly promising device for orotracheal intubation in a patient with a difficult airway,<sup>1</sup> because it provides an excellent view of the glottis without requiring alignment of the oral, pharyngeal, and laryngeal axes.<sup>2</sup> We, however, encountered a case in which the INTLOCK, the blade of the AWS, could not proceed beneath the epiglottis, and consequently the AWS failed to intubate the patient's trachea, probably because the distance from the mouth to the larynx of the patient was longer than the designed length of the INTLOCK.

A 74-yr-old man presented to the intensive care unit (ICU) because of respiratory failure from pneumonia one month after total gastrectomy. He had presented a Cormack and Lehane grade 3 view with a Macintosh laryngoscope on the day of the surgery. His trachea had been intubated using the McCoy laryngoscope (blade #4) with intense cricoid pressure according to the anesthetic chart.

In the ICU, since a Macintosh laryngoscopy again failed to expose the patient's glottis, we attempted to use the AWS for intubation. The INTLOCK was inserted into the pharynx without any difficulty, but the tip of the INTLOCK consistently advanced into the vallecula, and would not feed beneath the epiglottis. Although we could visualize the glottic opening under the epiglottis on the monitor of the AWS, we were unable to advance the tracheal tube into the