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## SHORT COMMUNICATION

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# A NOVEL TECHNIQUE FOR ORAL AND NASAL TRACHEAL INTUBATION USING THE VIDEO ASSISTED LARYNGOSCOPIES (THE GLIDESCOPE) IN PATIENTS WITH DIFFICULT, AND NORMAL AIRWAYS

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### Background

The GlideScope has been shown to improve the glottic view in patients with difficult airway. It is widely used for intubation in difficult and in normal airways<sup>1</sup>. However, providing a good view of the larynx does not always correlate with successful tracheal intubation. Intubation using the GlideScope as recommended by the manufacturer has a fairly high success rate, but there have been a number of failures. The following changes to the technique of tracheal intubation using the GlideScope, can facilitate intubation and increase its success rate.

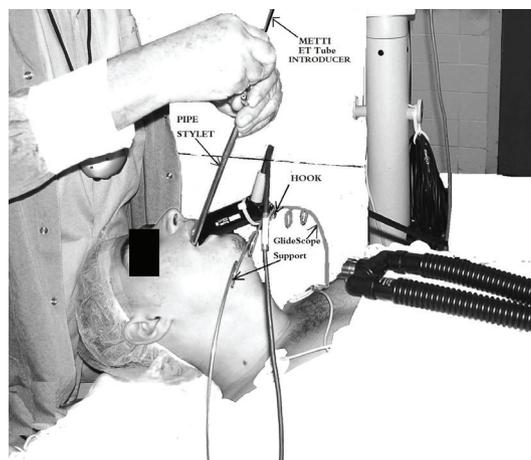
### Technique

The technique we have introduced for tracheal intubation using the GlideScope is summarized as follows:

1. After obtaining a good view of the larynx, the GlideScope is suspended on a bipod to free the two hands of the operator [Fig. 1].

*Fig. 1*

*The GlideScope suspended on a bipod. One anesthesiologist using his both hands manipulating the assembly of tube stylet and introducer to achieve successful tracheal intubation by suspension GlideScope.*



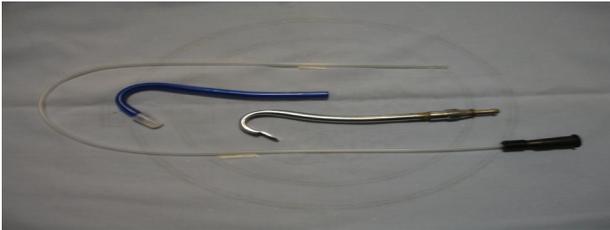
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- Oxygen is insufflated into the pharynx, either through a nasopharyngeal catheter or through a dental evacuator canula hooked to the angle of the mouth to provide apneic oxygenation during the intubation procedure [Fig. 2].

Fig. 2  
Pharyngeal oxygen insufflators



- An assembly of pipe stylet (MPS) and a soft curved tip endotracheal tube introducer (METTI) have been used to guide the ET tube into the trachea (VBM Sulz Germany)<sup>2</sup> [Fig. 3].

Fig. 3  
*METTI within a pipe Stylet (VBM) make one device where each can be maneuvered independently, the Pipe Stylet to curve the ET tube, and METTI to guide tube into trachea.*



**For orotracheal intubation**, an ET tube is slipped over a pipe stylet through which an ET tube introducer (METTI) has been inserted to make an **Assembly** of tube, pipe stylet, and introducer. After visualization of the glottis and establishing pharyngeal oxygen insufflations, the GlideScope is introduced orally and suspended on a bipod to free the operator's

hands<sup>3</sup>. The assembly is placed in the pharynx and the introducer is pushed through the glottis under clear vision into the trachea and the ET tube is railroaded over it<sup>4</sup>.

**For nasotracheal intubation** an ET tube introducer (METTI) is inserted into the nasal tube and the two are inserted through the selected nostril into the pharynx. After visualization of the glottis and suspension of the GlideScope, the cuff of the ET tube is inflated with air to raise its tip to face the glottis. The introducer is then pushed through the glottis into the trachea and the nasal tube is railroaded over it<sup>5</sup>.

## Discussion

The above described techniques have been used successfully in our department for the past several years for oral and nasal tracheal intubations in patients with difficult and normal airways.

The suspension of the GlideScope freed the two hands of the Anesthesiologist to manipulate the assembly of ET tube, pipe stylet, and Endotracheal tube introducer [Fig1]. This assembly make one device where each item can be maneuvered independently, the Pipe Stylet\_function\_to curve the ET tube, and direct it towards the glottis, while the introducer guide and guarantee the placement of the ET tube into the trachea [Fig. 3].

**In conclusion**, the technique of suspension video GlideScopy in combination with a soft curved tip introducer (METTI) and pipe stylet (MPS) can be successfully used to facilitate oral and nasal tracheal intubations in patients with difficult and normal airways.

## References

- COOPER RM: Early experience with a new video laryngoscope. *Can J Anesth*; 2005, 52(2):191-198.
- MUALLEM M: Endotracheal tube introducer, an aid for the difficult airway. *Middle East Journal of Anesthesiology*; 2000, vol. 15(6):687-692.
- MUSA MUALLEM, ANIS BARAKA: Suspension Laryngoscopy using the GlideScope. *MEJA*; 2009, 20(1).
- MUSA MUALLEM, ANIS BARAKA: Tracheal intubation using the GlideScope with A combined curved pipe stylet, and Endotracheal tube introducer. *Canadian Journal of Anaesthesia*; Jan 2007.
- MUSA MUALLEM, ANIS BARAKA: The use of the GlideScope to facilitate Nasotracheal intubation. *EJA*; Feb. 2000, vol. 26, no. 2.