

Optimizing Intubation Success with the Airtraq Laryngoscope

Lowering the position of the glottis within the laryngoscopic view might increase intubation success rates.

The Airtraq optical laryngoscope is a single-use device with a channel for advancing an endotracheal tube. This device, like other non-line-of-sight laryngoscopes, often provides an excellent view of the cords, but first-pass intubation is not ensured. These authors analyzed the effect of glottic positioning within the Airtraq laryngoscopic view on the success of tracheal intubation.

Investigators reviewed video images recorded during 109 intubation attempts in 50 obese patients undergoing elective anesthesia to identify the positions of the glottic opening and interarytenoid cleft within the laryngoscopic view immediately before successful (50) and failed (59) intubation attempts. In nearly all failed intubation attempts, the glottic opening appeared well above the horizontal midline in the laryngoscopic view. Maneuvers that improved intubation success involved repositioning the interarytenoid cleft below the horizontal midline, by partially withdrawing and repositioning the laryngoscope and by reducing cervical spine extension.

Comment: This study highlights what might be intuitively apparent when using an Airtraq laryngoscope: An endotracheal tube that is being advanced out of the Airtraq channel tends to head downward. That is, the glottis can be fully visualized but might still be too high within the laryngoscopic view for easy advancement of the endotracheal tube. Positioning the glottis closer to the midline of the visual field will likely improve the chances of first-pass success.

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Published in Journal Watch Emergency Medicine March 20, 2009

Citation(s):

Dhonneur G et al. Optimising tracheal intubation success rate using the Airtraq laryngoscope. *Anaesthesia* 2009 Mar; 64:315.

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