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Airtraq or the Macintosh Laryngoscope: Looking for the Elusive Elixir

Zahid Hussain Khan*

Department of Anesthesiology and Critical Care, Imam Khomeini Medical Center, Tehran University of Medical Sciences, Tehran, Iran.

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Fernando et al. [1] concluded that the Airtraq was useful when employed by unskilled or novice anesthesiology residents as the laryngoscope improved the laryngeal view thus facilitating the tracheal intubation. This study further high lights the indespensible role of Airtaraq in the hands of inexperienced staff designated to conduct tracheal intubation as part of their duties in emergency scenarios [2-6]. Tracheal intubation is a life saving measure in life threatening situations and failure to accomplish it ushers in a host of complications such as aspiration, bleeding and hypoxic brain damage.

Technological advances in airway appliances and management during the last two decades have been a tremendous boon in curtailing airway related morbidity and mortality and in this regard the Airtraq has been widely acknowledged as a highly useful tool for tracheal intubation as the instrument does not require alignmeniment of the oral, pharyngeal and tracheal axes to carry out the intubation ordeal. Taking this sterling characteristic of the Airtraq, it has served and will continue to serve as a valuable tool in the hands of the novice or the newcomer inexperienced residents. Three small series describe obstetric airway management with an Airtraq [7-8] or a Glide Scope [9]. These intubation strategies with potentially difficult airway have been

The authors declare no conflicts of interest. *Corresponding author.

E-mail address: khanzh51@yahoo.com

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rewarding, but speed, simplicity, reliability and efficacy [10] should be the desired characteristics in selecting the desired larangoscopic tool. In a manikin study by Savoldelli et al [11], Glidescope, McGrath and Airtraq laryngoscopes were compared with the direct laryngoscope using a Macintosh blade. In this study it was found that the time taken to place the endotracheal tube (ETT) was shorter for the Airtraq than the Glidescope and McGrath. These differences between the three devices are conceivable and appreciable because they reflect differences in the technique for ETT placement.

As the EET is self geared to the glottis while using the Airtraq, apparently much psychomotor skills are not involved in its acquisition. For all purposes and intents, the indirect laryngoscopes provide better laryngeal views compared with the popular and widely used Macintosh laryngoscope and thus are associated with negligible dental trauma.

In clinical practice we encounter a barrage of unanticipated problems such as pharyngeal and laryngeal pathologies or else find secretions, excessive fog or blood that may make it totally impossible to execute intubation if the indirect laryngoscopes are utilized. Lastly I may emphasize that the human airway is a difficult terrain and to have a smooth sailing the laryngoscopist should be

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fully abreast with airway predictive tests including the cranio-faciomaxillar and oral malformation or pathologies where in the awake fiberoptic intubation would be the only and perhaps the most pragmatic approach in overcoming catastrophic events.

References

- [1] Ferrando C, Aguilar G, Belda FJ. Comparison of the Laryngeal View during Tracheal Intubation Using Airtraq and Macintosh Laryngoscopes by Unskillful Anesthesiology Residents: A Clinical Study. Anesthesiol Res Pract. 2011; 2011:301057.
- [2] Maharaj CH, O'Croinin D, Curley G, Harte BH, Laffey JG. A comparison of tracheal intubation using the Airtraq or the Macintosh laryngoscope in routine airway management: A randomised, controlled clinical trial. Anaesthesia. 2006; 61(11):1093-9.
- [3] Wollard M, Lighton W, Mannion D, Watt J, McCrea C, Johns I, et al. Airtraq versus standard laryngoscopy by student paramedics and experienced prehospital laryngoscopists managing a model of difficult intubation. Anesthesia. 2008; 63(1):26-31.
- [4] Maharaj CH, Higgins BD, Harte BH, Laffey JG. Evaluation of intubation using the Airtraq or Macintosh laryngoscope by anaesthetists in easy and simulated difficult laryngoscopy--a manikin study. Anaesthesia. 2006; 61(5):469-77.

- [5] Woollard M, Mannion W, Lighton D, Johns I, O'meara P, Cotton C, et al. Use of the Airtraq laryngoscope in a model difficult intubation by prehospital providers not previously trained in laryngoscopy. Anaesthesia. 2007; 62(10):1061-5.
- [6] Maharaj CH, Costello JF, Harte BH, Laffey JG. Evaluation of the Airtraq and Macintosh laryngoscopes in patients at increased risk for difficult tracheal intubation. Anaesthesia. 2008; 63(2):182-88.
- [7] Dhonneur G, Ndoko S, Amathieu R, Housseini LE, Poncelet C, Tual L. Tracheal intubation using the Airtraq in morbid obese patients undergoing caesarean delivery. Anesthesiology. 2007; 106: 629-30.
- [8] Riad W, Ansari T. Effect of cricoid pressure on the laryngoscpoic view by Airtraq in elective caesarean section; a pilot study. Eur J Anaesthesiol. 2009; 26(11):981-2.
- [9] Turkstra TP, Armstrong PM, Jones PM, Quash T. GlideScope use in the obstetric patient. Int J Obstet Anesth. 2010;19:123-4.
- [10] Mhyre JM, Healy D. The unanticipated difficult intubation in obstetrics. Anesth Analg. 2011; 112(3):648-52
- [11] Savoldelli GL, Schiffer E, Abegg C, Baeiriswyl V, Clergue F, Waeber JL. Learning curves of the Glidescope, the McGrath and the Airtraq laryngosopes: a manikin study. Eur J Anaesthesiol. 2009; 26:557-58.