

using this technique, it is possible to benefit from the low blood solubility of desflurane and achieve rapid and smooth induction of anesthesia for the adult patient with the compromised airway.

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The Esophageal Detector Device: Ellick's Evacuator Versus Syringe

To the Editor:—It was interesting to read the work of Salem *et al.* regarding the efficacy of the self-inflating bulb in detecting esophageal intubation in the presence of a nasogastric tube or endotracheal tube cuff deflation.¹ The use of the esophageal detector device was first described by Wee in 1988.² Since then, a few studies demonstrating its efficacy have been reported. In his original description, Wee recommended the use of a 60-ml syringe with *gentle aspiration* to ascertain the position of the tube. Subsequently, Nunn used a compressed Ellick's evacuator in place of a syringe for this purpose.³ According to Nunn, the Ellick's evacuator applies a negative pressure of 9 kPa (approximately 67.5 mmHg). We believe that the use of the Ellick's evacuator, though more elegant, can cause airway collapse in patients with increased airway resistance, for example, chronic obstructive pulmonary disease, emphysema, or asthma. This can produce false-negative results, that is, failure to aspirate air even when the tube is correctly placed in the trachea. We are aware of two cases of false-negative results using Ellick's evacuator to confirm the position of an endotracheal tube in patients with chronic obstructive pulmonary disease in this hospital. Similarly, Baraka has reported three patients with asthma or upper airway obstruction in whom the use of the self-inflating bulb produced false-negative results.⁴

We believe that the application of a high negative pressure using Ellick's evacuator, as opposed to gentle aspiration using a 60-ml syringe, is more likely to cause airway collapse and, hence, a false-negative result in patients with increased airway resistance.

References

1. Lindgren L, Randell T, Saarnivaara L: Comparison of inhalation induction of isoflurane and halothane. *Eur J Anaesthesiol* 8:33-37, 1991
2. Smiley RM: An overview of induction and emergence characteristics of desflurane in pediatric, adult and geriatric patients (abstract). *Anesth Analg* 75:S38-S46, 1992
3. Lebenbaum-Mansour MH, Pandit SK, Kothary SP, Randel GI, Levy L: Desflurane versus propofol anesthesia: A comparative analysis in outpatients. *Anesth Analg* 76:936-941, 1993

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References

1. Salem MR, Wafai Y, Joseph NJ, Baraka A, Czinn EA: Efficacy of the self-inflating bulb in detecting esophageal intubation: Does the presence of a nasogastric tube or cuff deflation make a difference? *ANESTHESIOLOGY* 80:42-48, 1994
2. Wee MYK: The oesophageal detector device: Assessment of a new method to distinguish oesophageal from tracheal intubation. *Anaesthesia* 43:27-29, 1988
3. Nunn JF: The oesophageal detector device (letter). *Anaesthesia* 43:804, 1988
4. Baraka A: The oesophageal detector device (letter). *Anaesthesia* 46:697, 1991

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