

Awake intubation through an intubating laryngeal airway (ILA™) in a patient with Still's disease

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Received: 28 May 2009 / Accepted: 7 December 2009 / Published online: 15 January 2010
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To the Editor:

The intubating laryngeal airway (ILA™) (Mercury Medical, Clearwater, FL, USA) is a new supraglottic airway with an insertion technique and functionality very similar to the Fastrach™ laryngeal mask airway (LMA-Fastrach™). We describe the use of the ILA™ in fibre-optic-guided intubation in a patient with Still's disease and an anticipated difficult airway. Written consent was obtained from the patient for publication of this article.

A 40-yr-old female patient (weight 55 kg, height 165 cm) with adult Still's disease was scheduled for vitrectomy under general anesthesia. Previous cervical fusion resulted in cervical immobility, and the patient's mouth opening was limited to 12 mm due to temporomandibular joint involvement. Standard monitors were applied and an intravenous infusion of glycopyrrolate 0.2 mg, midazolam 1 mg, and remifentanyl was administered. Topical lidocaine 2-4% was atomized intraorally. A fully deflated size 3 LMA-Fastrach™ could not be inserted between the patient's incisors; however, a size 3.5 ILA™ was successfully inserted, the anesthesia circuit was connected, and the capnography tracing was visible. A 7.5-mm (internal diameter) endotracheal tube was loaded on an adult bronchoscope, and after removing the 15-mm connector of the ILA™, the bronchoscope was advanced through the ILA™, past the vocal cords (Figure 1), and into the lower trachea. The tracheal tube was then advanced over the bronchoscope into the trachea; the bronchoscope was withdrawn and the anesthesia circuit was attached. After confirming a visible capnographic

waveform, general anesthesia was induced. The ILA™ cuff was deflated and left *in situ*. At the conclusion of surgery, the muscle relaxant was reversed and sevoflurane was discontinued. The patient was awakened and the ILA™ and tracheal tube were removed.

Still's disease is characterized by fever, skin rash, myalgia, polyarthritis, limited cervical spine extension, atlanto-axial subluxation, temporomandibular joint involvement, and a potentially difficult airway.¹ The adult form of the disease has an estimated incidence of 0.16 cases/100,000 persons/year.¹ Our patient had a 12-mm mouth opening, cervical immobility, and an anticipated difficult airway.

Recent practice guidelines of the American Society of Anesthesiologists, the Canadian Airway Focus Group, and the Difficult Airway Society recommend the use of alternative airway devices, including the LMA-Fastrach™, in the management of patients with anticipated and unanticipated difficult airways. There is a higher success rate with bronchoscope-guided intubation compared with blind intubation through the LMA-Fastrach™,² and the ILA™, a new supraglottic airway device first introduced for North American clinical use in 2004, has been recommended as an alternative device for tracheal intubation.^{3,4} Unlike the LMA-Fastrach™, the ILA™ does not have a metal handle or metal shaft; it is inserted like a LMA-Classic™, and larger diameter tracheal tubes can be used.³ With an anterior-posterior diameter of 28 mm, the junction of the metallic shaft and bowl of the LMA-Fastrach™ is not compressible. In contrast, with an anterior-posterior diameter of 15 mm, the junction of the shaft and bowl of the ILA™ is compressible. Therefore, the ILA™ could be inserted successfully into the oral cavity of our patient with a mouth opening of 12 mm, whereas the LMA-Fastrach™ could not be inserted.

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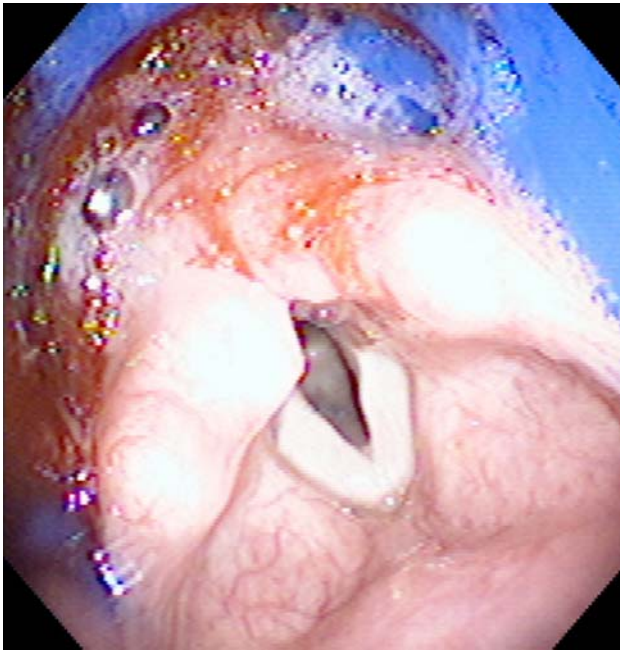


Fig. 1 A video bronchoscope was advanced through the intubating laryngeal airway (ILA™) approaching the outlet. An endoscopic view of the patient's vocal cords, arytenoids, and a rim of the ILA™ are shown. Note that the five o'clock position is anterior

There are several advantages of the ILA™ vs the LMA-Fastrach™ in tracheal intubation: The ILA™ is relatively inexpensive; there is familiarity with the insertion technique due to similarities with the LMA-Classic™; it has a thin anterior-posterior profile; and regular tracheal tubes can be used. However, there are several limitations with supraglottic airway-guided intubation: Anatomical features of Still's disease (limited mouth opening and cervical

immobility) may prevent the use of supraglottic airways; although bronchoscope-guided tracheal intubations through supraglottic airway devices are associated with a higher success rate, passage of the tracheal tube is not universally successful.⁵

In summary, a patient with Still's disease presented with limited mouth opening, cervical immobility, and an anticipated difficult airway. We describe awake insertion of a new supraglottic airway device, the ILA™, and successful bronchoscope-guided tracheal intubation through the ILA™. The described technique may be a useful alternative in patients with anticipated or unanticipated difficult airways.

Conflicts of interest None declared.

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