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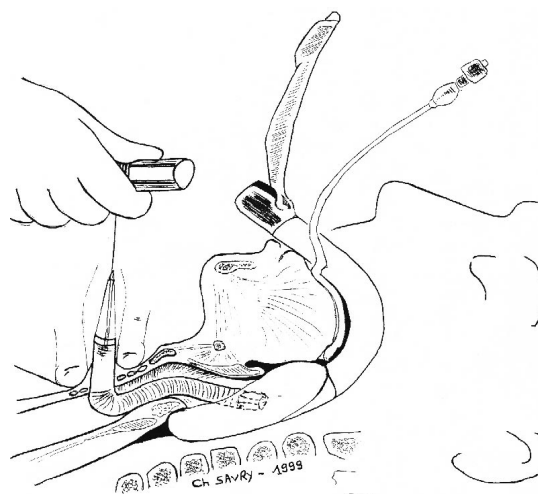
Translaryngeal tracheostomy through the intubating laryngeal mask airway in a patient with difficult tracheal intubation

Accepted: 9 March 2000

Sir: Tracheostomies are frequently carried out in intensive care patients requiring long-term ventilatory support. In our intensive care unit we perform translaryngeal tracheostomy (TLT) at the bedside using a Fantoni TLT kit (Mallinckrodt) [1]. We describe a case in which the use of an intubating laryngeal mask airway (ILMA) permitted mechanical ventilation during TLT under difficult orotracheal intubation conditions.

A 40-year-old man was admitted to the ICU after surgical treatment of ruptured cerebral aneurysm. His course required mechanical ventilation for 17 days. At this time the orotracheal tube was removed. Two days later the patient suffered a respiratory failure secondary to exacerbation of bronchial secretion. Because of partial neurological function recovery and inefficient coughing we decided to perform tracheostomy. Direct laryngoscopy following induction of general anesthesia revealed difficult intubation conditions. A size 4 ILMA Fastrach was inserted and the ventilator connected to it. A flexible fiberoptic bronchoscope was passed through the ILMA to identify the point of needle insertion by transillumination. The metal wire was threaded into the needle as usual and passed outside the ILMA. The needle and then the ILMA were both removed. The mouth end of the wire was threaded into the ILMA lumen and the ILMA reinserted. After adequate lubrication a 7.5 cone cannula was placed over the guidewire and passed easily into ILMA and between the vocal cords (Fig. 1). Final extraction of cone cannula was carried out as usual. The tracheostomy tube was then connected to the ventilator, and the ILMA was removed.

Fig. 1 Extraction of cone-cannula through the ILMA after cannula and ILMA lumen lubrication



Percutaneous tracheostomy is often used in an intensive care setting because of its simplicity, safety, and bedside use possibility [2]. The basic version of TLT ensures continuity of ventilation during the procedure, using a special cuffed catheter which is positioned in the lower one-third of the trachea by conventional laryngoscopy [1]. However, cuffed catheter insertion can be impossible in the case of difficult orotracheal intubation conditions. The ILMA is a modified version of the standard laryngeal mask airway with a capacity for guided tracheal intubation while maintaining ventilation [3]. A preliminary clinical report has shown that ILMA is an effective ventilatory device and intubation guide for routine and difficult airway patients [4]. A pilot study of ten patients described the potential benefits of ILMA for airway management during percutaneous non-translaryngeal tracheostomy [5]. In our case the ILMA insertion first enabled ventilation control at the time of difficult tracheal intubation and secondly allowed us to continue the TLT procedure. For a successful passage of tracheal cannula both ILMA lumen and cone cannula must be very well lubricated and be of an adequate difference in dimension (we used a size 7.5 cone cannula into a size 4 ILMA). ILMA is not able to protect the airway against gastric aspiration, and moreover it is unsuitable for patients requiring high inflation pressure or high level of positive end-expiratory pressure. We therefore advise against the systematic use of this device to replace the usual cuffed catheter, but we do believe that it can be very useful in selected patients with difficult intubation.

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