Use of a Lighted Stylet for Tracheal Intubation through an Intubating Port of a Mask

To the Editor---A face mask with an endoscopic or intubating port enables 100% oxygen to be administered during diagnostic endoscopy or tracheal intubation with a fiberoptic bronchoscope. Alternatively, it can be used to administer inhalational anesthetics, continuous positive airway pressures, or intermittent positive pressure ventilation. The need for a second experienced anesthesiologist to correctly hold the mask in place may be a disadvantage in procedures that involve anesthetized and paralyzed patients.

We suggest that the attending anesthesiologist use a lighted stylet (Trachlight; Laerdal Medical Corporation, Armonk, NY) that can be manipulated in the right hand while the mask (Endoscopy Mask; VBM Medizintechnik GMBH, Sulz a. N., Germany) is held in the left, and continuous positive airway pressures or intermittent positive pressure ventilation is maintained by either a respirator or manually by a nurse.

For nasal intubation, the lighted wand with the inner stylet removed is inserted into an endotracheal tube (ETT). For oral intubation, the metal stylet remains inserted, and the ETT is threaded over the wand (ETT/W) and bent to form a 90° angle at the mark. The ETT/W is inserted through a hole in the distensible silicone membrane of the mask. The mask is held with the left hand while the ETT/W is advanced with the right via either a nostril or the mouth to transilluminate the central region below the cricoid cartilage (fig. 1). Capnography and auscultation can confirm successful tracheal intubation.

We used the technique for nasal intubation in five adult patients who were incapable of placing their three middle fingers between their upper and lower teeth. Of these patients, one had an intermaxillary fixation. We also performed oral intubation using this technique in a patient who had undergone a failed laryngoscopy. After administering local anesthetics and applying vasoconstrictors topically to the nasal passage, the five patients who underwent nasal intubation were sedated with an infusion of propofol at a rate of 2-5 mg·kg⁻¹·h⁻¹ but were not paralyzed. The patient who underwent oral intubation was anesthetized and paralyzed with nitrous oxide, sevoflurane, and vecuronium. In all six patients, the mask was held in place, and continuous positive airway pressures or intermittent positive pressure ventilation was administered with ease. During the procedures, oxygen saturation was maintained > 97%. Nasal or oral tracheal intubation was successfully performed in five patients on the first attempt. Even in the paralyzed patient, the combination of using both intubation aids provided sufficient time to perform the procedure safely, without the distraction of needing to respond to the blinking of the lamp as a reminder to ventilate the lungs. However, one patient with a half-inch mouth opening suffering from amyloidosis had such thick skin in the neck region that the obscured glow observed from the wand was insufficient to detect its position. Subsequently, the trachea was intubated without further difficulty with the aid of a fiberoptic bronchoscope inserted via the mask.

We believe that this intubation technique with a lighted stylet through a port of a mask is quickly applied without a light source in the absence of another anesthesiologist.

Fig. 1. The anesthesiologist's left hand holding the mask and the right hand inserting the endotracheal tube threaded over the light wand through the intubating port.

Rumiko Uda, M.D., Ph.D.
Instructor
Mikiko Ohtsuka, M.D., Ph.D.
Assistant Professor
Toshiaki Minami, M.D., Ph.D.
Instructor
Hidemaro Mori, M.D., Ph.D.
Professor
Department of Anesthesiology
Osaka Medical College
Takatsuki, Osaka, Japan
rne003@poh.osaka-med.ac.jp
A Simple and Handy Way To Affix a Safety Pin to an Earpiece Tubing

To the Editor—Despite recent and much more sophisticated monitors, the precordial or esophageal stethoscope is considered to be a fundamental monitor in pediatric anesthesia. Usually, the earpiece tubing for the stethoscope is attached to the anesthesiologist’s clothing by a safety pin. Frequently, adhesive tape is used to affix the safety pin to the tubing. However, as time goes by, adhesive tape deteriorates, and eventually it gets dirty and sticky around the safety pin.

The surgical mask worn in the operating rooms commonly contains a flexible band of metal to secure the mask over the bridge of the nose. The safety pin is affixed to the tubing using this flexible metal band as shown in figure 1.

Masao Yamashita, M.D.
Yoshiko Osaka, M.D.
Department of Anesthesiology
Ibaraki Children’s Hospital
Mito, Japan

Reference


Fig. 1. A safety pin is affixed to an earpiece tubing by a piece of flexible metal from a surgical mask.