To the Editor—The laryngeal mask airway (LMA) has achieved widespread popularity as a device for airway maintenance during routine procedures performed under general anesthesia. Other uses for the LMA include its ability to allow blind or guided intubation of the trachea through its shaft with a high degree of success. Unfortunately, most standard endotracheal tubes (ETT) are too short to guarantee tracheal intubation in all cases, because, when fully inserted, they often do not protrude far enough beyond the distal grillette bars of the LMA to position the TT cuff safely below the vocal cords. This problem is commoner in males than in females. We wish to report a solution to this conundrum that might be useful in situations when a cuffed tube must be used to secure the airway.

The size 3 and 4 LMA can accommodate a well lubricated uncuffed ETT up to 6.0 mm ID. Both sizes 3 and 4 LMA have the same shaft length (19 cm) and internal diameters (10 mm). A standard Mallinckrodt 6.0-mm oral/nasal ETT (St. Louis, MO) measures 28.5 cm from its tip to its proximal end. When fully inserted through a size 3 or 4 LMA in vitro, the upper portion of its cuff lies 5.7 cm below the grillette bars. Asai et al. (1995) reported that the distance from these grillette bars to the vocal cords in vivo ranged from 2.5 to 4.7 cm in adult males and from 2.0 to 4.2 cm in adult females. This suggests that the cuff of an uncuffed ETT often would lie between the vocal cords when fully inserted through the LMA, especially if the head were extended, leading to an incomplete seal or possible laryngeal trauma. However, by employing a 5.0-mm Mallinckrodt Microlaryngeal Tube (MLT), with a length of 35.5 cm, successful tracheal intubation can be assured when using a size 3 or 4 LMA. This tube protrudes 13.2 cm beyond the LMA grillette bars, allowing a distance of 8.2 cm from the bars to the upper border of the cuff. This should be adequate to allow placement of the MLT cuff completely below the vocal cords in all patients. Interestingly, the MLT packaging wrapper states that the tube length is “520 mm,” but our measurements of one batch consistently revealed the true length to be 35.5 cm. Use of the 5.0-mm MLT may be even more appropriate in conjunction with the newly introduced size 5 LMA, which is 1 cm longer than the size 3 and 4 and has an internal diameter of 11.5 mm. If a 6.0-mm Mallinckrodt oral/nasal ETT were passed through the size 5 LMA, an insufficient length would extend beyond the LMA grillette bars to reliably position the TT cuff distal to the vocal cords. Other suggested solutions to the vexing problem of intubation through the LMA have included use of a Mallinckrodt Endotrach tube, use of a 5.0-mm Portex microlaryngeal tube (Hythe, Kent, UK), a shortened version of the LMA, the so-called ST-LMA (Inventar International SA, Henley-on-Thames, England), cutting off approximately 2 cm from the proximal shaft of the LMA and reinserting the connector, and deflating the LMA cuff after intubation, allowing about 0.7 cm further advancement of the ETT. All these maneuvers have their limitations. The Endotrach tube is the same length as a regular 6.0-mm oral/nasal ETT. The Portex 5.0-mm microlaryngoscope tube, although slightly longer at 30.5 cm, may not guarantee complete intratracheal placement of its cuff when passed through the LMA in some patients. The ST-LMA is 2 cm shorter than a conventional LMA but is not readily available in many institutions. Cutting 2 cm off the proximal end of the LMA shaft may not permit the tube to be successfully used subsequently on other patients. Resorting to the 5.0-mm MLT provides one further addition to the anesthesiologist’s armamentarium when confronted with a difficult airway. Although the resistance to gas flow through this long narrow tube is higher than when using a conventional 6.0-mm TT, it permits oxygenation in these life-threatening scenarios and reliably protects the airway from aspiration.

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