The Use of a Nasogastric Tube as an Aid in Blind Nasotracheal Intubation

To the Editor—We propose the following method to improve the success rate of blind nasotracheal intubation. First, anesthesia of the nasal mucosa, nasal pharynx, and larynx are achieved via a combination of topical and transaryngeal administration of local anesthesia. Second, a nasogastric tube is placed in the tracheal tube. The tip of the nasogastric tube, emerging about 20 cm from the tip of the tracheal tube, is inserted into the nasal cavity to the level of the pharynx. The nasogastric tube acts as a guide as the endotracheal tube is introduced into the nares. When the tracheal tube reaches the pharynx, the nasogastric tube is removed. The tracheal tube is then advanced until its tip reaches the inlet of the esophagus, confirmed by the disappearance of breath sounds. The tracheal tube is then gradually pulled back as far as the junction of the larynx and the esophagus, and maximum breath sounds return.* Third, the cuff of the tracheal tube is inflated with 15–20 ml air, causing the tip of the tracheal tube to rise from the posterior pharyngeal wall and directing the outlet of the tracheal tube toward the trachea.† This purpose is also accomplished by the Endo-

* This first step was described by Kondou et al., who did not, however, refer to the use of the nasogastric tube into the larynx. Kondou K, Toyama T, Shibata Y, Nagao T, Taki K, Ito M, Takeuchi T: An aid of nasotracheal intubation. Journal of Japanese Dental Anesthesiology 16:59–62, 1988

Fig. 1. The nasogastric tube is inserted into the trachea through the tracheal tube.
trol tube (Mallinckrodt), but the cuff inflation technique is especially suited to the spiral tube, which in turn may also be rotated. Fourth, a new sterile nasogastric tube is inserted as far as the trachea via the tracheal tube (fig. 1). When the tip of the nasogastric tube passes through the glottis, coughing may occur despite topical anesthesia. Finally, the cuff is deflated, and the tracheal tube is advanced. Rotation of the tracheal tube may be beneficial at this time.

The spiral tube of Rusch is used because it has a 90° bevel at the tip and has no side hole (thus, breath sounds are audible only via the lumen) and because more reliable movement of the tube from the posterior pharyngeal wall toward the trachea can be achieved by inflation of a high-volume low-pressure cuff that has enough volume to raise the tip of the tube. This spiral tube is equally flexible in all directions. This feature facilitates advancing of the tube into the trachea while it is being rotated.

REFERENCE


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ERRATUM

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