

article, to which Dr. Janzen refers, discusses a case of a grade III reaction without these findings. We wonder if the other signs did not develop because the patient was under general anesthesia with controlled ventilation.

We are in agreement with Dr. Janzen that the temporal relationship was typical of DIAR. While it may have been advantageous to have obtained DRA levels, we refer to the original criteria of Ring and Messmer, as

we did in our article, which did not require measurements of mediators or histamine to diagnose DIAR.

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A New Endotracheal Tube Equipped with Side Ports for Topical Anesthesia of the Trachea

To the Editor:—Topical anesthesia of the respiratory passage is useful in reducing the intensity of the tracheal reflex and cough.¹ Before insertion of an endotracheal tube (ETT), we often directly apply local anesthetic spray into the trachea or inject a small amount of local anesthetic percutaneously through the cricothyroid membrane. This decreases the duration of circulatory responses to tracheal intubation and enhances tolerance of the tube with less anesthetic drug. However, the duration of its effect is not sufficient (30–45 min with lidocaine²) to prevent noxious stimuli by the ETT placed during surgery or critical care.

We developed a new type of an ETT equipped with two side ports for topical administration of local anesthetics into the trachea (fig. 1). One side port exists 0.5 cm distal to the inflatable cuff of the ETT, and the other side port 0.5 cm proximal to the cuff. Both open outwards to the external wall of the ETT. The side ports are joined to pilot tubes, the proximal ends of which are for infusion of local anesthetics (fig. 2). Thus, topical anesthesia to the distal and/or the proximal portions of the trachea can be applied without disconnecting the breathing circuit.

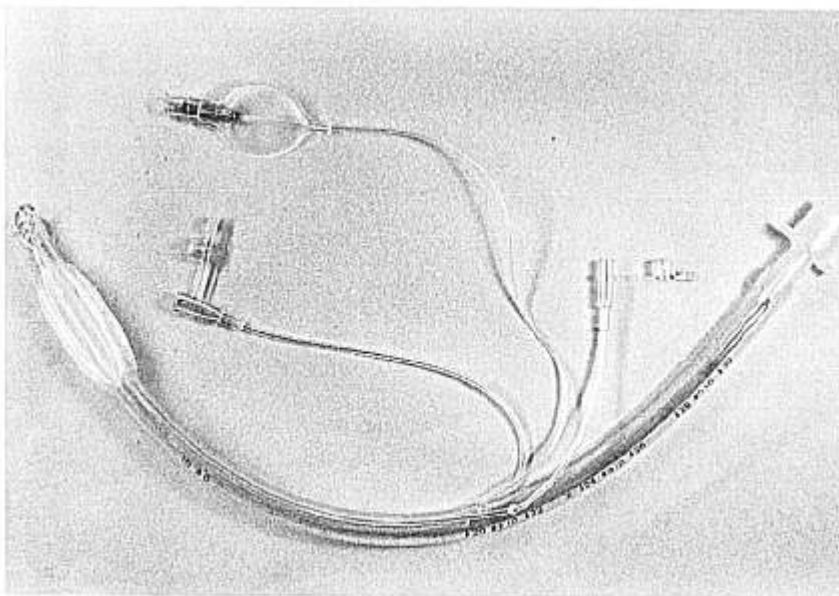


FIG. 1. A new endotracheal tube with two side ports for topical anesthesia of the trachea.

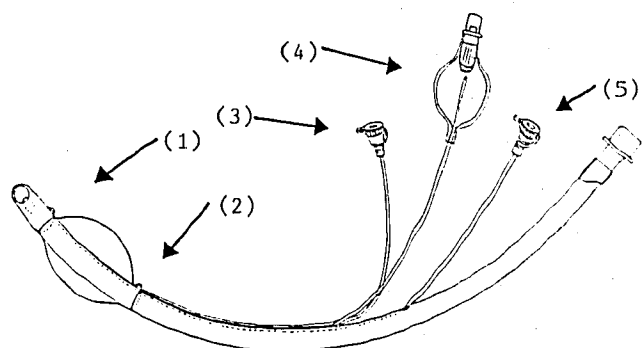


FIG. 2. Diagram of a new endotracheal tube with two side ports. (1) A side port 0.5 cm distal to an inflatable cuff. (2) A side port 0.5 cm proximal to an inflatable cuff. (3) An infusion port for infusion of local anesthetics to the proximal portion of the trachea. (4) Pilot tube for the inflatable cuff. (5) An infusion port for infusion of local anesthetics to the distal portion of the trachea.

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The Gum-elastic Bougie: Old but Still Useful

To the Editor:—We have observed, during our period of practice of anesthesiology in North America, that an instrument which is considered a part of standard anesthetic equipment at home is not readily available here. We highlight this fact as we think the endotracheal tube introducer,* or gum-elastic bougie, offers advantages over other equipment used in cases of difficult tracheal intubation.

The introducer is 60 cm long and 15 FG in diameter. The tip is angled at 40°, 3.5 cm from the end. It is built up on a woven polyester base that combines both stiffness and flexibility at body temperature. It is easily sterilized, and so can be re-used.

In a situation where visualizing the vocal cords is difficult, the introducer is lubricated, then directed posterior to the epiglottis, with the tip angled anteriorly (fig. 1). Using the introducer as a guide, the endotracheal tube (ETT) is passed over it into the desired position.

Other introducers used inside the ETT have the major disadvantage of being too rigid. Because they need to be angled anteriorly to enable them to be passed into the larynx, it is frequently difficult, if not impossible, to manipulate the tube and introducer off the anterior wall of the larynx and into the trachea. The flexibility of the "gum-elastic" bougie overcomes this

problem. This flexibility also makes any damage to the vocal cords or trachea unlikely, as the introducer will bend if undue force is applied in the face of resistance.

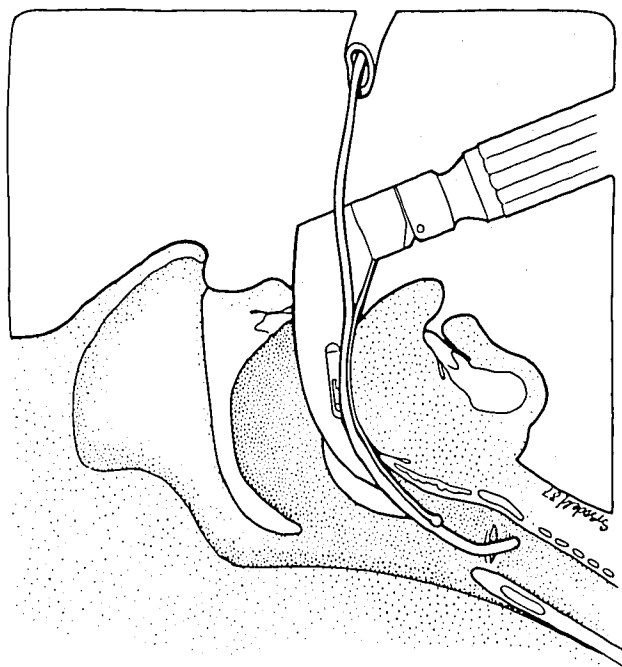


FIG. 1. Bougie directed into trachea. ETT inserted over bougie into position.

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REFERENCES

1. Stoelting RK, Peterson C: Circulatory changes during anesthetic induction: Impact of d-tubocurarine pretreatment, thiamylal, succinylcholine, laryngoscope and tracheal lidocaine. *Anesth Analg* 55:77-81, 1976
2. Ritchie JM, Green NM: Local anesthetics, *The Pharmacological Basis of Therapeutics*. Edited by Gilman AG, Goodman LS, Rall TW, Murad F. New York, Macmillan Publishing Company, 1985, pp 302-321

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