

**GADGETS****An Endotracheal Spray for the Relief of Bronchospasm**

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The use of isoproterenol hydrochloride or related drugs in the relief of bronchospasm associated with bronchial asthma, emphysema, bronchitis, and other bronchopulmonary disorders has been of recognized value to the clinician for some time. Although bronchospasm during anesthesia is an infrequent occurrence, it may be of such severity as to be life threatening. Heretofore, an easy and effective way of administering the aerosol form of the bronchodilators (*e.g.*, isoproterenol) to the anesthetized patient has not been available and has taxed the ingenuity of the anesthesiologist. The simple device described here now makes this therapy possible and has worked exceptionally well in several patients.

Recently, an aerosolized tetracaine spray\* was marketed with a removable cap and a disposable delivery tube (fig. 1). It was noted

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\* Metraspray (tetracaine measured dose aerosol). Riker Laboratories, Northridge, California.



FIG. 1. A commercially available aerosolized tetracaine spray with disposable delivery tube and removable cap. Note the angled tip of the delivery tube to facilitate tracheal spray through the oropharynx.

that many aerosol containers have the same type cap fitting and that the cap and delivery tube from the tetracaine spray would also fit a container of isoproterenol aerosol. The delivery tube of the tetracaine sprayer has a small angle at its tip to facilitate spraying into the area of the trachea from the mouth. On the other hand, if one wishes to spray down the lumen of an endotracheal tube, then turning the delivery tube end-for-end fits the angled portion of the tube into the cap and the straight portion may be easily passed through the lumen of the endotracheal tube (fig. 2). This facilitates delivery of the isoproterenol in an intubated patient. The tetracaine spray comes with a number of the disposable delivery tubes, making ample tubes available for both the tetracaine and the isoproterenol sprays.



FIG. 2. Two different commercial aerosolized isoproterenol containers fitted with the cap and delivery tube from the tetracaine spray. Note the delivery tube has been turned end-for-end to facilitate spray through the lumen of an endotracheal tube.