anterior and a lateral chest radiograph. This problem was realized by Rosenberg et al., and the catheter was inserted into the pleural cavity by the surgeon while the chest was open.1

5. Intrathoracic insertion of a catheter in non-thoracic surgical patients introduces the risk of tension pneumothorax. Proper equipment and personnel should be available at hand for rapid insertion of a chest tube.

The results of our pilot study are in agreement with those reported by Rosenberg et al., and were reason enough to terminate our evaluation of intrathoracic analgesia. We would like to voice a word of caution regarding the high incidence of systemic side effects associated with intrathoracic infusion of local anesthetics. This method does not provide effective intercostal analgesia and is of limited value for pain relief after thoracic surgery.

Nabil El-Baz, M.D.
Associate Professor
Department of Anesthesiology

L. Penfield Faber, M.D.
Professor
Department of Cardiovascular and Thoracic Surgery

Anthony D. Ivankovich, M.D.
Professor and Chairman
Department of Anesthesiology
Rush Medical College
Rush-Presbyterian-St. Luke's Medical Center
Chicago, Illinois 60612

REFERENCES


(Accepted for publication December 12, 1987.)

A Stylet for Difficult Intubations

To the Editor—We report a simple, inexpensive, and easy to construct device that is useful in assisting in difficult tracheal intubations.

Intubating stylets have been reported useful in performing difficult orotracheal intubations in patients with "anterior larynaxes" or other causes of inadequate glottic exposure.1-3 When the larynx is only partially visualized on laryngoscopy, it is difficult to insert an endotracheal tube directly, as the tube further obscures vision of laryngeal structures. In this situation, it is often possible to intubate the trachea with the thinner and more maneuverable intubating stylet, and to then guide an endotracheal tube into the trachea over the stylet.

Difficulties in obtaining a suitable commercially manufactured intubating stylet led us to create our own from commercially available products. The first component of our device is marketed under the name of "Tracheal Tube Exchanger" (T.T.X., Sheridan Catheter Corporation, Argyle, NY) (fig. 1A). The size used is labeled "large—for sizes 7.5-10.0." The second component, a malleable wire with a plastic coating, is marketed by the same company under the name "Sher-i-Slip" Intubating Stylet (SIS) (fig. 1B). As the T.T.X. is itself too flimsy to be effective as an intubating stylet, the SIS serves to provide the necessary stiffness.

Combining the SIS and the T.T.X. to form an intubating stylet takes about 10 min. First, using a knife, strip all but 3 cm of the plastic coating from the SIS (fig. 1G). Next, slide the exposed wire of the SIS into the lumen of the T.T.X. until the plastic plug at the end of the SIS abuts the orifice of the T.T.X. Lubricate the plastic plug with an alcohol swab and drive it into the lumen until the tips are flush (fig. 1D). The tight fit of the plug into the lumen makes dislodgement of the inner wire virtually impossible.

The intubating stylet can be gas sterilized and stored at intubating locations or carried coiled in a pocket. As
the inner wire is shorter than the T.T.X., the malleable end functions as an intubating stylet, while the pliable end can be used as an endotracheal tube exchanger following the technique described by Finucane and Kupshik. The intubating stylet is potentially life saving in a difficult intubation. It is inexpensive, pocket portable, and easily constructed from readily available materials.

KEITH H. BERGE, M.D.
Resident in Anesthesiology
Mayo Graduate School of Medicine

RONALD J. FAUST, M.D.
Assistant Professor of Anesthesiology
Mayo Medical School

Department of Anesthesiology
Mayo Clinic
Rochester, Minnesota 55905

REFERENCES

(Accepted for publication January 10, 1988)

Make a Difficult Intubation Simple

To the Editor—Difficult tracheal intubation due to inability to visualize the glottis is occasionally encountered in anesthesia practice. Techniques for managing this situation are well described. Despite visualization of the vocal cords, difficulty in inserting the endotracheal tube may still occur, because of a very narrow anatomical corridor. Contributing factors include missing teeth, TMJ dysfunction, oropharyngeal masses, thick tongue, or soft tissue edema. This is a particularly frustrating situation that may lead to persistent attempts to forcibly place the endotracheal tube. Tissue trauma, bleeding, cuff leak, and dental injury may result.

We have inserted oral endotracheal tubes successfully in this situation by using an Argyle Aero-Flo Tip suction catheter as a stylet. Under direct vision, the or-