include an enlarged right ventricular cavity, pulmonary hypertension, and low cardiac output.[2] Initially, it was believed that these factors were contributory. An improved success rate and less serious arrhythmias have been observed when the patient is placed in the head-up, right lateral tilt position.[1] However, this study used internal jugular vein catheterization, and we used the right subclavian vein, and therefore, these observations may not be entirely applicable. Our suspicions of a defective catheter were aroused by noting ventricular premature contractions with catheter advancement but without a right ventricular pressure trace.

In summary, difficult pulmonary artery catheterization may result from a manufacturing error in the catheter that is not obvious upon superficial inspection. Before resorting to various maneuvers to manipulate a pulmonary artery catheter into position, we recommend that the catheter be checked for incorrect labeling.

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Connecting a Jet Stylet to a Jet Injector

To the Editor:—Recently the concept and use of a jet stylet during extubation of patients in whom subsequent ventilation and/or reintubation may be difficult was described.[1] A jet stylet is a small-internal-diameter (ID), hollow, semirigid catheter that is inserted into an *in situ* endotracheal tube (ETT) prior to extubation. After the ETT is withdrawn over the jet stylet, the small-ID hollow catheter may then be used as a means of ventilation (*i.e.*, the jet function) and/or as an intratracheal guide for reintubation (*i.e.*, the stylet function). The jet function may safely allow additional time to assess the need for the stylet function.

We have been using a commercial tube exchanger as our jet stylet catheter and have made the connection of the tube exchanger to a jet injector by wedging the hub of an appropriately sized intravenous (iv) catheter into the tube exchanger (14-, 16-, and 18-G iv catheter hubs fit into the large, medium and small Sheridan tracheal tube exchangers, respectively [Sheridan Catheter Corporation, Argyle, NY]).[2,*] However, the iv catheter cannot be in place during the removal of the ETT since the ID of the ETT ordinarily does not fit over the hub of the iv catheter. In addition, wedging the iv catheter into the tube exchanger usually takes both times (½ to 1 min) and a significant degree of finger strength; consequently, the wedging should be done prior to use of the jet stylet in order to dilate the proximal end of the jet stylet and allow the iv catheter–tube exchanger connection to be made more swiftly when the need actually arises.

We have devised a simple, inexpensive attachment that when preassembled provides for much easier and faster connection of the tube exchanger to a jet injector. A metal female Luer lock–barbed cone adaptor (either Beckton Dickinson Co., Rutherford, NJ, parts 3092 (metal) or 3250 [plastic] or Popper & Son, Inc., New Hyde Park, NY, catalogue number 6174 [metal]) is inserted into the proximal end of 4.0-cm lengths of 5.0-, 4.0-, and 3.0-mm-ID ETT and the distal end of the 4.0-cm lengths of 5.0-, 4.0-, and 3.0-mm-ID ETT fit very snugly over the proximal end of large, medium, and small Sheridan tracheal tube exchangers, respectively (fig. 1). Of course, the female Luer lock attaches directly to the jet injector.[2] The ID of the metal adaptor (1.93 mm) is larger than a 14-G iv catheter (1.47 mm). Since it is far easier and quicker to push the open end of the 4.0-cm length of ETT onto the proximal end of the tube exchanger than it is to wedge an iv catheter hub into the hollow end of the tube exchanger, it is much easier and quicker to institute jet ventilation with the new system compared to the old system. Consequently, we think that this is the best method currently available for connecting a tube exchanger to a jet injector.

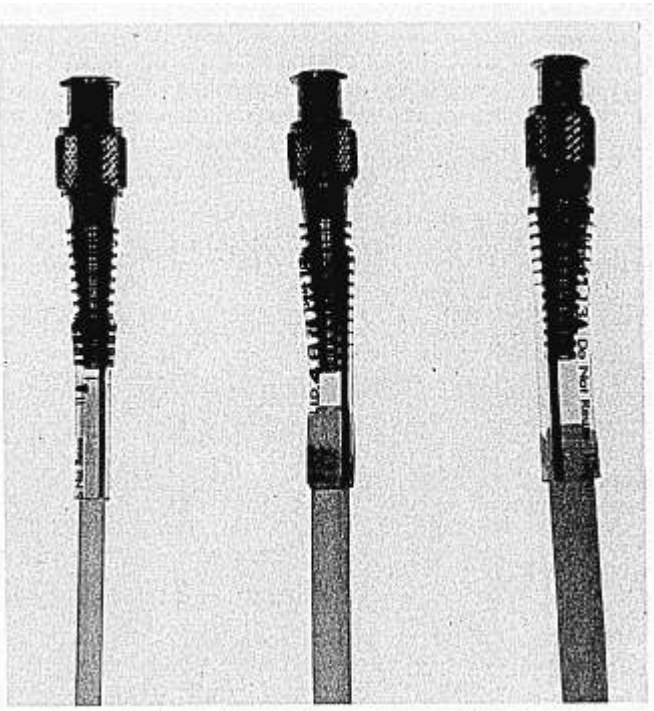

FIG. 1. Attachment of jet stylet to the jet injector. A metal female Luer lock–barbed cone adaptor is fitted into the proximal end of 4.0-cm lengths of 5.0-, 4.0-, and 3.0-mm endotracheal tubes (*right to left, respectively*). The distal end of the 5.0-, 4.0-, and 3.0-mm lengths of endotracheal tube fit over the proximal end of large, medium, and small Sheridan tracheal tube exchangers, respectively. The female Luer lock connects to the jet injector.

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An Aid in Cases of Difficult Tracheal Intubation

We noted with interest Dr. Cahen's recent letter regarding the use of the laryngotracheal analgesia cannula as a guide for tracheal intubation.[1] The technique, though blind, has been used by us many times over the last 14 yr to "save the day" when confronted with an unanticipated, difficult intubation. It is, however, worth noting that this is not a new technique and that it was described previously by Rosenberg and colleagues.[2]

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CO_2 Laser Resistance of Various Ointments and Tapes

To the Editor:—With the frequent use of lasers in the management of disorders of the upper airway, laser-induced airway fires have been recognized as a cause of severe morbidity. Much research has been focused on improving the resistance to ignition of endotracheal tubes and on limiting the use of combustion-supporting gases. We have chosen to investigate in the laboratory the risk of combustibility of tapes and ointments that are commonly used in and around the airway during laser surgery. Although there exists the opinion that one should avoid petroleum-based preparations near the laser or electrocautery, there is a paucity of research in this area.

We assembled several varieties of tapes and topicalizing ointments and gels. A Coherent 450 XL CO_2 laser (Palo Alto, CA) was set at 20 W with a beam diameter of 1.0 mm (clinically relevant settings) in the continuous mode for up to 30 s. All items were studied under two conditions: 1) room air and 2) an O_2/air mixture yielding a net O_2 concentration of 40% blown onto the study material at 6 l/min. All tapes were studied both as 1) a single layer suspended in air between two points and as 2) a wad of tape formed by carefully folding the tape on itself so as to exclude air between the layers, to a total of ten layers thick, and placed on a slightly moist towel.

The following were noted: 1) time to ignition in room air, 2) time to ignition in 40% O_2, 3) continuance of the flame with removal of the laser, and 4) continuance of the flame with removal of the supplemental O_2.

Results are shown in table 1. Of the tapes tested in 40% O_2, the 3M 1525 Blenderm® was the slowest to ignite, followed by the Johnson & Johnson Dermaclear®, followed by the Johnson & Johnson silk. We no longer intend to use the Ortholetic® or Micropore® "paper tape" during laser surgery.

Second, in the presence of 40% O_2, tape repeatedly wrapped (a wad) was less susceptible than a single layer of tape to ignition. In room air, a lessened susceptibility to ignition of the wad could be demonstrated only with the Micropore® "paper tape".

Third, it is apparent that supplemental O_2 promotes combustion,

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