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(Accepted for publication February 12, 1991.)

Anesthesiology
74:964, 1991

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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(Accepted for publication February 13, 1991.)

Anesthesiology
74:964-965, 1991

CO₂ 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 CO₂ 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 O₂/air mixture yielding a net O₂ 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% O₂, 3) continuance of the flame with removal of the laser, and 4) continuance of the flame with removal of the supplemental O₂.

Results are shown in table 1. Of the tapes tested in 40% O₂, 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% O₂, 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 O₂ promotes combustion,