CORRESPONDENCE

Anesthesiology
54:350, 1981

Prevention of Fire Hazard during Laser Microsurgery

To the Editor:—The letter from Doctors Hirshman and Leon emphasizes again the risk of fire hazard during laser microsurgery,[1] either from direct beaming of the laser or spontaneous ignition when the critical temperature is exceeded.

We have found that muslin wrapping of the endotracheal tube is effective only as long as the material stays moist. Adherent foil is less effective, and may easily burn if direct contact is made with the laser beam. In addition, reflection of the beam from the surface, especially of aluminum containing substances, may cause "hot spot" burning on surrounding areas of tracheal mucosa.

In our experience, coating of the endotracheal tube with dental acrylic provides a smooth, adherent, nonreflective cover which appears to be totally nonflammable and can provide protection against temperature increases within the tube (fig. 1).

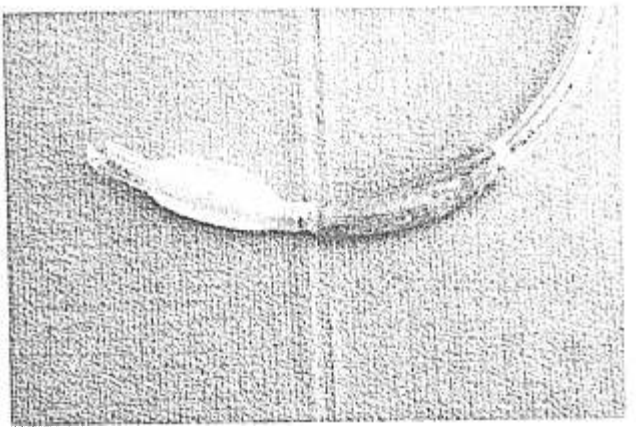

FIG. 1. An endotracheal tube covered with a pink dental acrylic, which is molded and adherent to the tube.

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REFERENCE

1. Hirshman CA, Leon D: Ignition of an endotracheal tube during laser microsurgery. ANESTHESIOLOGY 53:177, 1980

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Partition Coefficient *vs.* Dissociation Rate Constant as Determinant of Duration of Neuromuscular Blockade

To the Editor:—Further to the correspondence of Kopman[1] on the paper of Stanski and Sheiner,[2] I wish to make two comments to demonstrate the inconsistencies of Stanski's post hoc reasoning used in his reply.

If the muscle/blood or blood/fat partition coefficient were more important than the dissociation rate constant of drugs in determining duration of action, then the monoquaternary pancuronium analogue, ORG NC45, which is more fat soluble than pancuronium, should be longer acting. In both the isolated arm and following bolus injection, it is very much shorter acting (Bencini *et al.*).[3] Regarding decamethonium, it was demonstrated many years ago independently by Waser,[4] Taylor,[5] and Creese *et al.*[6] that decamethonium rapidly penetrates muscles and has a high affinity for muscle. According to Stanski's hypothesis, this should make it long acting in the isolated arm, while in our experiments, it had a recovery time 85 per cent shorter than *d*-tubocurarine.

Finally, I do not believe that the small increase in plasma level that occurs following the release into the circulation of the remnants of the 2 mg of *d*-tubo-