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Correspondence

Dextromethorphan for Intubation

To the Editor:—A drug which would specifically suppress tracheal reflex irritability and increase the patient's ability to tolerate an endotracheal tube without any other effects would find wide use for clinical practice. In the past, we resorted to deeper levels of anesthesia, narcotics, or muscle relaxants to achieve this end, but all these affect functions other than cough. Recently I have used dextromethorphan intravenously to lessen or eliminate the bucking response to the endotracheal tube in 41 patients. Doses of 20 to 30 mg intravenously seem to effect a marked diminution or abolition of bucking without depressing respiration. Transient hypotension may occur following intravenous administration. At the doses used, the tracheal reflex response to suctioning and extubation is still present.

A method for determining objectively the tendency to react on the endotracheal tube is still being developed. In obtaining these preliminary observations, no topical anesthetic has been used, and intubation has been performed after a thiopental–succinylcholine sequence. Anesthesia is maintained with cyclopropane and oxygen delivered at a rate of 3 l/min in a semiclosed circle system. In this setting, very few patients have tolerated the tube at 10 per cent cyclopropane, but many tolerated it at 20 per cent cyclopropane. If the concentration of cyclopropane is lowered stepwise every 15 minutes, a point at which the patient will not tolerate the tube will be found. Injection of 10–20 mg dextromethorphan intravenously at this time will restore the patient's tolerance of the tube, and cyclopropane may then be further reduced. After dextromethorphan, many patients have tolerated the tube at 10 per cent cyclopropane and a few have tolerated it at 5 per cent cyclopropane. Tolerance of the tube by conscious patients has also been improved by intravenous administration of dextromethorphan.

Following these observations, I began to use similar doses before intubation and continued to obtain clinically satisfactory results. More recently, I have given the drug before induction. Patients become sedated, and they may remark that they feel "itchy" or "hot" in part or all of their bodies. There have been no other untoward effects either during or after this treatment.

The disturbing possibility that overly vigorous suppression of the cough reflex during the operating period may leave the patient's trachea relatively unprotected and vulnerable to aspiration in the postoperative period remains, however. For this reason, it would be highly desirable to have an antagonist to the antitussive effects of dextromethorphan. In animal experiments, neither levallorphan nor naloxone reversed the antitussive effects of dextromethorphan. I hope that a dextro analog of levallorphan or naloxone will be available for trial as an antogonist to dextromethorphan. If effective, it would be of great theoretical as well as practical interest.

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Ketamine-induced Convulsions

To the Editor:—An editorial by Winters [1] and lead article by Kayama [2] have emphasized CNS excitation by ketamine. Winters' proposed classification of anesthetics lists ketamine along with nitrous oxide and trichloroethylene as drugs which "include Stage I catalepsia only." This is in contrast to another group of drugs (phencyclidine, enflurane, and gamma-hydroxybutyrate) which "continue from Stage II to generalized convulsions." Kayama