



LETTERS

REDUCING ANXIETY IN PATIENTS BEFORE AND DURING PEDIATRIC ANESTHESIA INDUCTION

To the Editor:

Thank you for the opportunity to make a correction to the article "Reducing anxiety in parents before and during pediatric anesthesia induction" published in the February 2001 *AANA Journal*. The complete list of investigators was inadvertently omitted from the manuscript prior to submission. The 4 investigators who were not included in the original manuscript are: Karen Selley, CRNA, MS, University of Michigan-Flint/Hurley Medical Center, Flint, Mich; Eileen McKee, PhD, Department of Psychology, Hurley Medical Center; Andrea Price, FACHE, chief operating officer, Hurley Medical Center; and Francis Gerbasi, CRNA, PhD, University of Michigan-Flint/Hurley Medical Center.

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MILITARY AND CIVILIAN PENETRATING EYE TRAUMA: ANESTHETIC IMPLICATIONS

To the Editor:

I read the article "Military and civilian penetrating eye trauma: Anesthetic implications" (*AANA J.* 2001;69:31-37), by MAJ Jerry Biehl, CRNA, AN, USAR, with great interest. I found the

article well written and informative. I understand that the primary intent of the article was to call attention to severe life-threatening injuries associated with such injuries; however, a good portion of the article concentrated on the controversies concerning the use of the depolarizing muscle relaxant succinylcholine in the full-stomach, open-globe patient.

I applaud the extensive discussion and documentation of studies that are supportive of the prudent use of succinylcholine and pretreatment with *d*-tubocurarine and its effects upon intraocular pressure (IOP). The consideration of the unrecognized difficult intubation and concentration upon obtunding the effects of laryngoscopy is of paramount importance and may indeed overshadow the controversy of succinylcholine. I believe that with advances in pharmacology that the succinylcholine question, in this particular patient scenario, has been made moot since the addition of rapacuronium bromide into our arsenal of muscle relaxants.

Rapacuronium bromide is a non-depolarizing aminosteroid muscle relaxant with rapid onset and short duration. In the past, some have advocated the use of large doses of rocuronium bromide, which would speed onset but also would prolong the duration of action to an unacceptable length and is of no comfort in the unrecognized difficult intubation scenario. Rapacuronium bromide, in the recommended intubating dose of 1.5 mg/kg, provides good to excellent intubating conditions at 60 seconds in 87% of the adult population less than 65 years of age and in 96% of the adult population greater than 65 years of age. The time to maximum blockade is 90 seconds. This rapid onset approaches that of succinylcholine.

With respect to the clinical duration of rapacuronium bromide, after an intubating dose of 1.5 mg/kg, without reversal, the train-of-four response greater

than 0.7 ranges from 25 to 35 minutes with a mean of 30 minutes. This length of time would be unacceptable in the patient with an unrecognized difficult intubation; however, in this situation one can administer neostigmine in a dose of 50 to 70 μ g/kg, which will accelerate the reversal of muscle relaxation by 50% and reduces the time to train-of-four recovery from 16 to 18 minutes. One must remember that the time of clinical duration of succinylcholine, 1 mg/kg, to recover 25% of the control twitch height, ranges from 5 to 15 minutes with a mean of 9 minutes. The recovery of rapacuronium bromide, with early reversal, will approach that of succinylcholine. Finally, with respect to IOP, a 1.5 mg/kg dose of rapacuronium bromide will reduce IOP by 15% at 3 minutes, whereas succinylcholine will increase IOP by 43% at 2 minutes.

In summary, the use of rapacuronium bromide will approach the onset and duration, with early reversal, of succinylcholine and has no effect on increasing IOP. In no way do I mean to imply that rapacuronium is superior to succinylcholine; however, it has similar properties and would make an attractive alternative to succinylcholine in this scenario. Most importantly, the use of rapacuronium takes the controversies of using succinylcholine out of the equation so that the anesthetist can concentrate on the more important task of obtunding the increase of IOP related to actual intubation.

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Editor's Note:

The original author (MAJ Jerry Biehl) declined the opportunity to respond to the letter above.