Laryngeal injuries and tracheal intubating conditions with or without muscle relaxation I

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To the Editor,

We read with avid interest the recently published study regarding laryngeal injuries and tracheal intubating conditions with or without the use of muscle relaxants.¹ While we are intrigued by the findings, we have several concerns regarding the study design. The study reports that, at time $T_0 + 50$ s, the study drug 0.15 ml kg^{-1} (cisatracurium 1 mg ml^{-1} or saline *iv*) was administered over 10 s. Next, at $T_0 + 100$ s, propofol 2.5 mg kg^{-1} *iv* was administered over 50 s. Ventilation via facemask was initiated upon loss of eyelash reflex. Assuming the onset of propofol's action was coincidental with the completion of its administration, there remained an approximate time lag of 90 s from completion of the administration of cisatracurium and completion of the administration of propofol. The report does not indicate which anesthetic agents were administered during bag-mask ventilation prior to attempting laryngoscopy. This aspect concerns us, as patients might have experienced "inability to breathe or discomfort" prior to their loss of consciousness.

A second concern is the uncertainty, from the methodological description, as to whether a supplemental muscle relaxant was administered intraoperatively and whether the observer recorded signs of patient movement or "coughing"

in response to surgical stimulation. Finally, the reported study had a lower incidence of sore throat compared to other studies. As this study involved only female patients, it is possible that the vigorous response to laryngoscopy and tracheal intubation indicated by its final assessment would not have materialized with male subjects who have different muscularity. We believe that these factors are important considerations when evaluating both the incidence and the severity of postoperative sore throat.

In our view, further studies in this area should give additional consideration to the timing of the administration of muscle relaxants in relation to pharmacodynamic considerations, especially the onset times of the muscle relaxant and the induction agent.

Conflicts of interest None declared.

Reference

1. Bouvet L, Stoian A, Jacquot-Laperriere S, Allaouchiche B, Chassard D, Boselli E. Laryngeal injuries and intubating conditions with or without muscular relaxation: an equivalence study. *Can J Anesth* 2008; 55: 674–84.

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