



## Brief Academy

### Comment on the article “Postoperative residual paralysis in patients aged over 65 years old at the Post-Anesthesia Care Unit”<sup>☆</sup>

### Comentario acerca del estudio “Relajación residual postoperatoria en pacientes mayores de 65 años en la Unidad de Cuidado Postanestésico”

Jaime Torres Cruz\*

E.S.E. Hospital San Rafael de Tunja, Tunja, Colombia



Residual paralysis with the use of non-depolarizing muscle relaxants is a problem that has beset us for many years.<sup>1</sup> Much has been written about avoiding it and about the need to monitor relaxation at the completion of the surgery in order to avoid undesirable effects in the recovery room,<sup>2</sup> and identify the need for reversal when required.<sup>3</sup>

There is a lot of debate about whether monitoring of intra-operative paralysis is necessary, but there is little discussion on whether it should be monitored at the end of the surgery, and still less about whether residual paralysis must be reverted post-operatively.<sup>4</sup>

At the end of the article on “Residual post-operative paralysis in patients over 65 in the Post-Anaesthetic Care Unit,”<sup>5</sup> the authors ask whether it is necessary to revert residual paralysis. This is a matter about which there is little doubt in the current literature since it has been determined that a T4/T1 ratio of 0.90 has to be present before sending a patient to the post-anaesthetic care unit, and failure to ensure this is considered by some as an adverse event.<sup>6</sup> In the study, although monitoring in some of the patients indicated the presence of

residual paralysis, the decision was made not to revert. This poses an undue risk, considering the large number of potential complications of this bad practice, as determined in the literature cited by the authors themselves.<sup>7,8</sup>

Airway obstruction is among the potential complications that may develop when patients are left with residual paralysis. This study reports one case of laryngospasm in the recovery room to which the authors appear not to attach a lot of importance and which might have resulted from failure to revert the muscle relaxant. In view of the above, I believe that when the Ethics Committee approved this study, it should have considered if those patients were being exposed to undue risk, even more so considering that they are elderly patients and, as such, much more susceptible.

## Funding

The author did not receive any kind of sponsorship to carry out this article.

\* Please cite this article as: Torres Cruz J. Comentario acerca del estudio “Relajación residual postoperatoria en pacientes mayores de 65 años en la Unidad de Cuidado Postanestésico”. Rev Colomb Anestesiol. 2017;45:78-79.

\* Correspondence to: Calle 13 No. 27-60, Duitama, Colombia.

E-mail address: [jtorresc62@yahoo.com](mailto:jtorresc62@yahoo.com)

---

## Conflicts of interest

The author declares having no conflict of interest.

---

## REFERENCES

---

1. Johansen SH, Jorgensen M, Molbech S. Effect of tubocurarine on respiratory and nonrespiratory muscle power in man. *J Appl Physiol.* 1964;19:990-4.
2. Kopman AF. Undetected residual neuromuscular block has consequences. *Anesthesiology.* 2008;109:363-4.
3. Eriksson LI. Evidence-based practice and neuromuscular monitoring: it's time for routine quantitative assessment. *Anesthesiology.* 2003;98:1037-9.
4. Viby-Mogensen J, Claudius C. Evidence-based management of neuromuscular block. *Anesth Analg.* 2010;111:1-2.
5. Gonzalez-Cardenas VH, Salazar ramirez KJ, Coral Sanchez GT. Relajación residual postoperatoria en pacientes mayores de 65 años en la Unidad de Cuidado Postanestésico. *Rev Colomb Anestesiol.* 2016;44:211-7.
6. Ariza F, Dorado F, Enríquez LE, González V, Gómez JM, Chaparro-Mendoza K, et al. Relajación residual postoperatoria en la unidad de cuidados postanestésicos de un hospital universitario: estudio de corte transversal. *Rev Colomb Anestesiol.* 2017;45:15-21.
7. Claudius C, Garvey LH, Viby-Mogensen J. The undesirable effects of neuromuscular blocking drugs. *Anaesthesia.* 2009;64 Suppl. 1:10-21.
8. Murphy GS, Brull SJ. Residual neuromuscular block: lessons unlearned. Part I: definitions, incidence, and adverse physiologic effects of residual neuromuscular block. *Anesth Analg.* 2010;111:120-8.