



Correspondence on Effect of Different Doses of Sugammadex on Recovery and Hemodynamic Parameters in Reversing Neuromuscular Blockade in Patients Undergoing Electroconvulsive Therapy

“Elektrokonvülsif Tedavi Uygulanan Hastalarda Nöromusküler Blokajın Geri Döndürülmesinde Sugammadexin Farklı Dozlarının Derlenme ve Hemodinamik Parametrelere Etkisi” Konulu Yazışma

© Ahmet Ridvan DOĞAN

Sakarya Training and Research Hospital, Clinic of Anesthesiology and Reanimation, Sakarya, Türkiye

Keywords: Sugammadex, cost analysis, anesthesia

Anahtar kelimeler: Sugammadex, maliyet analizi, anestezi

Dear Editor,

We read with great interest the article titled “Effects of Different Sugammadex Dosages on Recovery Times and Hemodynamic Parameters During Electroconvulsive Therapy” by Arslan et al.¹ in Medeniyet Medical Journal. The study provides valuable insight into optimizing neuromuscular blockade reversal during electroconvulsive therapy (ECT). However, we would like to highlight two critical points that warrant further discussion.

Firstly, the authors conclude that 3 mg/kg sugammadex is cost-effective compared to 2 mg/kg, as it results in a shorter recovery time. However, no formal cost-effectiveness analysis was conducted. Determining cost-effectiveness requires a comprehensive economic evaluation, including drug costs, total hospital stay, and potential complications. Without such an analysis,

it remains unclear whether the additional cost of the higher dose is justified by its clinical benefits^{2,3}.

Secondly, while the study includes patients with different psychiatric diagnoses (bipolar disorder, major depression, psychosis), it does not analyze whether psychiatric conditions impact neuromuscular blockade reversal and recovery times. Given that psychiatric patients are frequently on psychotropic medications that influence brain metabolism, their recovery from anesthesia may vary⁴. Previous studies suggest that central nervous system pharmacodynamics differ among psychiatric populations, potentially affecting their anesthetic emergence⁵. Investigating whether different psychiatric disorders influence recovery times would provide valuable clinical insights and support individualized anesthesia management in ECT patients.

Address for Correspondence: A.R. Dogan, Sakarya Training and Research Hospital, Clinic of Anesthesiology and Reanimation, Sakarya, Türkiye

E-mail: a.ridvandogan@gmail.com **ORCID ID:** orcid.org/0000-0002-5481-8882

Cite as: Doğan AR, Correspondence on “effect of different doses of sugammadex on recovery and hemodynamic parameters in reversing neuromuscular blockade in patients undergoing electroconvulsive therapy”. Medeni Med J. 2025;40:33-34

Received: 03. February 2025

Accepted: 11 February 2025

Published: 28 March 2025



We appreciate the authors' contribution to this important topic and look forward to further clarification regarding these issues. Addressing these concerns may help refine the clinical applicability of sugammadex dosing in psychiatric patients undergoing ECT.

Ethics

Conflict of Interest: The author have no conflict of interest to declare.

Financial Disclosure: The author declared that this study has received no financial support.

REFERENCES

1. Arslan K, Kucuksarac G, Cetin Arslan H, Aydin E, Sahin AS. Effect of different doses of sugammadex on recovery and hemodynamic parameters in reversing neuromuscular blockade in patients undergoing electroconvulsive therapy. *Medeni Med J*. 2024;39:16-23.
2. Carron M, Baratto F, Zarantonello F, Ori C. Sugammadex for reversal of neuromuscular blockade: a retrospective analysis of clinical outcomes and cost-effectiveness in a single center. *Clinicoecon Outcomes Res*. 2016;8:43-52.
3. De Robertis E, Zito Marinosci G, Romano GM, et al. The use of sugammadex for bariatric surgery: analysis of recovery time from neuromuscular blockade and possible economic impact. *Clinicoecon Outcomes Res*. 2016;8:317-22.
4. Naskar Chandrima, Grover Sandeep. Psychotropic medications around perioperative period: how to go about?. *Journal of SAARC Psychiatric Federation*. 2023;1:11-21
5. Fleisher LA. Preoperative evaluation. *Anesthesiol Clin N Am*. 2004;22:xi-xii.