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IN REPLY

In reply: Monitoring recovery from neuromuscular block using acceleromyography at the trapezius muscle: problems that must be considered

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To the Editor,

We would like to reply to the methodological concerns raised by Dr. Unterbuchner.[1] Among them was the issue of randomization, which is usually required to diminish differences caused by inter-individual variations. As our measurements were always performed simultaneously in the same patient, however, the two "groups" were absolutely identical with regard to demographic data or concomitant diseases. Thus, randomization was not necessary to achieve results without bias.

With regard to the neuromuscular measurements, we adhered as strictly as possible to the Good Clinical Research Practice guidelines (GRCP) published by Fuchs-Buder *et al*.[2] According to these guidelines, the use of an elastic preload may indeed decrease variability at the adductor pollicis, although its use is still not considered mandatory. Furthermore, for assessment at the trapezius muscle itself, it was obviously not feasible. As for the stimulus duration of 0.1 msec that we used, admittedly a stimulus duration of 0.2 msec is the recommended standard. Our choice of 0.1 msec may have decreased the current necessary for achieving supramaximum stimulation,[2] but it did not influence our results. We also did not observe any cases of impaired supramaximum stimulation at either measurement site.

The recommended time period for signal stabilization is two to five minutes, but it may take 5 to 20 min. In light of this discrepancy, the ten-minute period in our investigation was likely sufficiently long. Any cases with substantial drift during this period were excluded. All analyzed cases had a stable signal prior to injection of rocuronium. We agree with Dr. Unterbuchner that this design might have led to a higher-than-ideal number of excluded subjects. Nevertheless, we believe that the data of the included patients are valid.

Additionally, Dr. Unterbuchner correctly states that analyzing a normalized train of four (TOF) ratio would lead to even more pronounced differences between the measurement sites. The GCRP guidelines recommend that an uncorrected (not normalized) TOF ratio be reported.[2] Therefore, we decided to present the original data, particularly as our study was a methods comparison.

Conflicts of interest None declared.

Editorial responsibility This submission was handled by Dr. Hilary P. Grocott, Editor-in-Chief, *Canadian Journal of Anesthesia.*

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