Correspondence

Postoperative rocuronium rep paralysis

To the Editor:

We read with interest the report by Arndt *et al.*¹ Recurarization appears to occur frequently and we would like to provide two further reports.

Patient #1 sustained a gunshot to her neck causing an intimal flap injury to the carotid artery. During stent placement under conscious sedation an intracranial AV fistula was discovered during arteriography. Subsequently, invasive radiological ablation under general anaesthesia after awake fiberoptic intubation, proceeded uneventfully. After standard neuromuscular reversal and tracheal extubation, the patient was transported awake, sitting up, and talking in the SICU. Fifteen minutes after extubation, she was unable to open her eyes and noted difficulty breathing. Bag mask ventilation was begun. Fiberoptic intubation under controlled ventilation via an LMA proceeded uneventfully. The ulnar nerve response revealed one weak twitch to TOF stimulation. Twenty minutes later, the patient was again able to open her eyes, lift her head and cough. The trachea was extubated uneventfully.

Patient #2 presented for breast biopsy under general anaesthesia. Anaesthesia was induced with propofol and fentanyl, followed by an intubation dose of rocuronium (0.6 mg·kg⁻¹) and anaesthesia was maintained with nitrous oxide-oxygen-sevoflurane. Vancomycin (1 g) was given preoperatively. Post surgery, normal TOF, sustained tetanus and head lift (>5sec) was evident after standard reversal. After awake extubation, the patient was transported to PACU. Within 20 min, she became progressively dyspneic and weak as evidenced by depressed ulnar twitch responses. Calcium chloride (1.5 mg·kg⁻¹) followed by 10 mg pyridostigmine and 0.2 mg glycopyrrolate was given with no immediate improvement. Subsequently, the trachea was reintubated after 5 mg midazolam and the lungs were ventilated until spontaneous neuromuscular recovery. Extubation proceeded uneventfully.

In summary, we describe two cases of rocuronium rep paralysis in which neuromuscular recovery was demonstrated prior to PACU arrival. Vancomycin-induced neuromuscular potentiation should be given serious consideration when used with rocuronium.²

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REFERENCES

- 1 Arndt GA, Gerry T, White P. Postoperative rep paralysis after rocuronium following nebulized epinephrine. *Can J Anaesth* 1997; 44: 321-4.
- 2 Huang KC, Heise A, Shrader AK, Tsueda. Vancomycin enhances the neuromuscular blockade of vecuronium. *Anesth Analg* 1990; 71: 194-6.

REPLY

We were interested in Dr. Coveler's response to our article on "Postoperative rocuronium rep paralysis...". It is our opinion that postoperative rocuronium rep paralysis is not infrequent. However, the aetiology may be multifactorial. We may be on the learning curve in using this drug correctly, or rocuronium may possess a pharmacological profile making rep paralysis more likely. From Dr. Coveler's description, it would appear that good clinical practice was followed and postoperative paralysis should have been unlikely.

The reason we wrote our article was to warn clinicians of possible rocuronium rep paralysis. It would appear that our experience at Wisconsin is not unique. Most clinicians are comfortable using atracurium and vecuronium for neuromuscular blockade and the recovery profile makes post-operative paralysis unlikely. However, one of my colleagues reminded me of the "ventilator farms" in the recovery room when vecuronium was initially introduced, due to clinicians needing to learn how to use this drug. The basic question to which I do not have an answer is, does rocuronium possess an unique pharmacology making post-operative rep paralysis more likely, or are we still on the learning curve?

I hope our article and Dr. Coveler's experience will prompt others to investigate rocuronium to address the issue of postoperative paralysis. I still use rocuronium, but with caution.

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Masquerading neuropathies

To the Editor:

The recent clinical report by Kahn illustrating the potential for postoperative epidural analgesia with local anaesthetic/opioid infusions to confound the recognition of perioperative neurological complica-