Laparoscopic partial nephrectomy in a patient on simvastatin
Delayed recovery from neuromuscular blockade

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Abstract:

Delayed recovery from anesthesia remains a very challenging subject for anesthesiologists. This case report describes the clinical course of delayed recovery from neuromuscular blockade after laparoscopic partial nephrectomy in a patient on simvastatin. The patient was hypertensive on regular treatment with oral captopril 25 mg twice daily and amlodipine 5 mg once daily and hypercholesterolemic on regular simvastatin 40 mg once daily with a normal electrocardiogram (ECG). All preoperative laboratory findings were within normal ranges. The patient was premedicated with midazolam 1 mg and general anesthesia was induced with fentanyl 2 μg/kg body weight, propofol 2 mg/kg and rocuronium bromide 0.6 mg/kg to facilitate tracheal intubation. Anesthesia was maintained with inhalation of isoflurane 1.0–1.5 % in 40 % oxygen-enriched air and 25 μg boluses of fentanyl. The patient did not require any additional rocuronium throughout surgery which was finished after 4 h. The patient most probably had preoperative simvastatin-induced myotoxicity. This potentiated the muscle relaxant effect of rocuronium bromide and was the reason for patient unresponsiveness and delayed postoperative recovery. We can conclude that anesthesiologists should preoperatively identify statin myotoxicity and to avoid neuromuscular blocking drugs for statin-treated patients. Also, preoperative adjustment of statin dosage may be recommended.

Keywords:

Delayed recovery · General anesthesia · Hypercholesterolemia · Neuromuscular blockade · Simvastatin

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