Succinylcholine Is Safe for Patients on Statins

No clinically significant differences in postoperative muscle pain or serum indicators of muscle injury were noted between statin users and nonusers.

Succinylcholine and statin medications independently can cause muscle injury. To determine whether combining the two medications is deleterious, researchers prospectively compared fasciculation intensity, muscle pain scores, and blood levels of myoglobin, potassium, and creatine kinase (CK) between 38 statin users (for at least 3 months) and 32 nonusers who received succinylcholine (1.5 mg/kg) during elective surgery at a single U.S. hospital.

At baseline, statin users were older; exercised less frequently; had mean higher creatinine concentration; and had a higher prevalence of muscle pain, coronary artery disease, type II diabetes, and hyperlipidemia; baseline median myoglobin concentrations did not differ significantly between groups. In analyses controlled for the potential confounders, statin users had significantly higher mean myoglobin concentrations 20 minutes after succinylcholine administration (the primary outcome; 77 µg/L vs. 47 µg/L) and at 5 minutes (71 µg/L vs. 49 µg/L). Statin users were 1.8 times more likely than nonusers to have intense fasciculations. No between-group differences were noted in median myoglobin concentration at 24 hours, potassium concentration at 5 and 20 minutes, change in CK level at 24 hours, or postoperative muscle pain at 2 and 4 hours.

Comment: The effect of succinylcholine in patients taking statins is likely of no clinical significance. Succinylcholine remains the first-line agent for rapid sequence intubation, whether or not the patient is on statin medication.

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