Letter to the Editor

ACEing Perioperative Management of Cholinesterase Inhibitors

The ACE Question in the January issue of the *ASA Monitor* addresses perioperative medication management in patients with dementia. It is suggested that cholinesterase inhibitors should be stopped before elective surgery because they may prolong duration of succinylcholine and decrease the effects of neuromuscular blocking agents. However, there does not appear to be strong evidence for stopping these medications. In particular, the risk-benefit of holding donepezil may be questioned since, as stated, it would need to be held for two to three weeks due to its long half-life. At least one study (*Am J Geriatr Psychiatry* 2011;19:803-13) failed to demonstrate increased adverse perioperative outcomes in patients taking donepezil, galantamine, or rivastigmine. These patients underwent surgery for hip fracture, therefore their medications were likely continued. And, in fact, the majority were receiving donepezil. Elective patients can be managed just as the emergencies, with awareness of potentially prolonged effects of succinylcholine and with sugammadex reversal of potentially higher required doses of rocuronium.

Patients may be overwhelmed by the amount of information they receive in the preoperative period. In the absence of strong evidence, I believe it is best to avoid unnecessary changes in their routines. I would suggest it is more patient-centric to use our knowledge and skills to adjust our anesthetic to our patients rather than to stop medications that improve cognitive or behavioral function.

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Author's Reply:

We appreciate Dr. Leskiw calling attention to our suggestion that donepezil be discontinued two to three weeks before anesthesia due to its long half-life and potential interference with neuromuscular blockade. Our suggestion was based on several case reports describing the potentiation of neuromuscular blockade with donepezil (*World J Clin Cases* 2020;8:5341-46; *Anesthesiology* 2003;98:574-5). This is not strong evidence, and there is no evidence that any patient has suffered clinical harm from the interaction of donepezil with acetylcholine metabolism. Dr. Leskiw correctly points out that there are risks of stopping donepezil, including exacerbation of cognitive decline. These risks must be considered before such a decision is made. For obvious reasons, there are no studies that definitively address this question.

With a few clear exceptions (insulin, oral hypoglycemics, angiotensin receptor blockers, drugs that affect coagulation), most long-term medications should be continued throughout the perioperative period without interruption. A decision to stop any long-standing prescription weeks in advance of surgery should be made in consultation with the health care provider who prescribed the medication. This affords time for a thoughtful discussion of the relative risks and benefits of a sustained interruption of baseline medications.

We agree with Dr. Leskiw's dedication to patient-centric care and thank her for the opportunity to elaborate on an important issue in the care of patients with dementia.

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