IN REPLY





In reply: Parkinsonism-hyperthermia syndrome and deep brain stimulation

Tze Yeng Yeoh, MBChB • Pirjo Manninen, MD • Suneil K. Kalia, MD, PhD • Lashmi Venkatraghavan, MD

Received: 27 January 2017/Accepted: 31 January 2017/Published online: 14 February 2017 © Canadian Anesthesiologists' Society 2017

To the Editor,

We thank Dr. Caroff for his positive comments on our review and for bringing up the issue of Parkinsonism-hyperthermia syndrome (PHS). We agree that PHS is a rare but potentially fatal condition seen in patients with Parkinson's disease when their dopaminergic medications are abruptly reduced or stopped. It has also been described in patients with implanted deep brain stimulators after battery depletion or device malfunction. In our institution, we have witnessed a few patients with an implanted deep brain stimulator for Parkinson's disease who presented with symptoms of PHS after complete depletion of the device's battery. They often require urgent surgery for battery replacement. We did not include this point in our manuscript as it is a rare condition and unlikely to occur in patients who have the deep brain stimulator temporarily

turned off during the intraoperative period. We agree, however, that it is an important differential diagnosis to consider in this group of patients.

Conflicts of interest The authors have no conflicts of interest to disclose.

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

Funding None.

Reference

 Caroff SN. Parkinsonism-hyperthermia syndrome and deep brain stimulation. Can J Anesth 2017; 64. DOI: 10.1007/s12630-017-0837-9.

T. Y. Yeoh, MBChB · P. Manninen, MD

L. Venkatraghavan, MD (⋈)

Department of Anesthesia, Toronto Western Hospital, University Health Network, University of Toronto, Toronto, ON, Canada e-mail: lashmi.venkatraghavan@uhn.on.ca

S. K. Kalia, MD, PhD

Division of Neurosurgery, Toronto Western Hospital, University Health Network, University of Toronto, Toronto, ON, Canada

