J Anesth (2014) 28:475
DOI 10.1007/s00540-013-1723-4

LETTER TO THE EDITOR

Autoimmune limbic encephalitis and anesthesia

Chrysanthi Batistaki · Kalliopi Drachtidi · Georgia Kostopanagiotou

Received: 31 July 2013 / Accepted: 24 September 2013 / Published online: 9 October 2013

Keywords Limbic encephalitis · Anesthesia

To the Editor:

We report the anesthetic management of a patient with autoimmune limbic encephalitis scheduled for endovascular aortic aneurysm repair surgery. This rare disorder is usually paraneoplastic and is characterized by memory impairment, seizures, psychiatric symptoms, autonomic derangement, involuntary movements, and cognitive dysfunction [1]. It is also usually characterized by the presence of antibodies against various antigens, including those against *N*-methyl-D-aspartate (NMDA) receptors [1, 2]. Therapy consists of immunosuppressants in combination with the management of seizures and psychiatric symptoms.

Our patient was a 66-year-old man, American Society of Anesthesiologists stage III. His medications included prednisolone, valproate, bromazepam and mirtazapine. General anesthesia was induced with midazolam, propofol, fentanyl and rocuronium and was maintained with propofol and remifentanil infusions. Blood pressure and Bispectral Index levels showed significant intraoperative variability, with a relative resistance to propofol infusion (Electronic Supplementary Material 1). Sugammadex 2 mg kg^{-1} was administered at the end of surgery, and the patient was successfully extubated, with no signs of neurological or cognitive disturbances.

The interaction of the disease with anesthetic agents and perioperative stress is unknown. Agents that interfere with NMDA receptors should be avoided due to the possibility of symptom exacerbation [2]. Propofol is considered to be the safer option [2] because of its gamma-aminobutyric acid (GABA)-mediated mode of action. We selected remifentanil and rocuronium/sugammadex to avoid any residual postoperative action. Autonomic dysregulation is an expected feature of the disease, and caution is required to avoid dysrhythmias and blood pressure fluctuations. Our case illustrates that immunosuppression issues as well as anticonvulsant therapy also interfere with anesthetic management and require special consideration.

Conflict of interest None.

References

1. Machado S, Pinto AN, Irani SR. What should you know about limbic encephalitis? Arq Neuropsiquiatr. 2012;70:817–22.
2. Kawano H, Hamaguchi E, Kawahit S, Tsutsumi M, Tanaka K, Kitahata H, Oshita S. Anaesthesia for a patient with paraneoplastic limbic encephalitis with ovarian teratoma: relationship to anti-*N*-methyl-*D*-aspartate receptor antibodies. Anaesthesia. 2011; 66:515–8.

Electronic supplementary material The online version of this article (doi:10.1007/s00540-013-1723-4) contains supplementary material, which is available to authorized users.

C. Batistaki (✉) · K. Drachtidi · G. Kostopanagiotou
2nd Department of Anesthesiology, School of Medicine, University of Athens, "Attikon" University Hospital, 1 Rimini str, 12462 Athens, Greece
e-mail: chrysabatistaki@yahoo.gr