Author's response to reviews

Title: Anti-N-methyl-D-aspartate Receptor Encephalitis Associated with an Ovarian Teratoma: Two Cases Report and Anesthesia Considerations

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Comments

We describe two female patients with anti-NMDAR encephalitis accompanied by ovarian teratoma who presented for laparoscopic oophorectomy under general anesthesia. The perioperative management and complications of anti-NMDAR encephalitis, including hypoventilation, paroxysmal sympathetic hyperactivity (PSH) and epilepsy, are challenging for anesthesiologists. Currently, there is insufficient evidence about the perioperative management, monitoring and anesthesia management of anti-NMDAR encephalitis. Although propofol was utilised to induce and maintain anesthesia for the two patients in this report. The effect mechanism of halogenated inhaled anesthetics and propofol is not very clear still, no definitive conclusion has been drawn regarding the contribution of NMDAR or GABAA receptors to inhalation anesthetics and propofol. This report was based on the consideration that controversial anesthetics that likely act on NMDARs should be avoided. Additionally, BIS monitoring should to be prudently applied in anti-NMDAR encephalitis because of abnormal electric encephalography (EEG). Anesthesiologists must be careful with regard to central ventilation dysfunctions and PSH due to anti-NMDAR encephalitis. This report just wanted to arouse the attention of anesthesiologists through possible publication in BMC Anesthesiology.