Journal of Scientific Innovation in Medicine

Subramanian K, et al. Trial of Amantadine in Anoxic Brain Injury and CNS Lymphoma. *Journal of Scientific Innovation in Medicine*. 2020; 3(3): 25. DOI: https://doi.org/10.29024/jsim.68

PUBLISHED ABSTRACT

Trial of Amantadine in Anoxic Brain Injury and CNS Lymphoma

Kritika Subramanian, Eugieneo Kandoth and Terence McGarry

New York City Health+Hospitals/Elmhurst, US

Corresponding author: Kritika Subramanian (subramak1@nychhc.org)

Introduction

Amantadine has been extensively studied and applied in patients with Traumatic Brain Injury. However, little is known on the effects of the drug in other neurological injuries. We present here two cases of where amantadine was trialed: Anoxic Brain Injury and CNS lymphoma.

Patient 1

24 years old male with a past medical history of multi-substance abuse presented with cardiac arrest secondary cocaine use, complicated by anoxic brain injury and sympathetic surges. Patient was status post IV sedation and status post extubation now on trach collar to 40% FiO2. Pt has been comatose for >3 months. Sympathetic surges are controlled with 0.5mg PO Ativan PRN along with anti-epileptics.

Patient 2

38 years old female with a past medical history of HIV/AIDS secondary to contaminated blood transfusion on HAART, CNS lymphoma status post chemoradiation, hypoxic respiratory failure, a failed extubation attempt, now on trach to vent and status post PEG tube has been in a semi responsive state for >18 months.

These patients overall had poor prognosis, and ongoing Goals of Care discussions were being held in conjunction with palliative care. During the time of the amantadine trial, we were the primary team taking care of these two patients.

Methods

Amantadine was administered for a total of 7 days, initially at 100 mg BID × 3 days, followed by 200 mg BID.

Results

Patient 1

Pt had less episodes of hemodynamic instability and sympathetic surges after initiating Amantadine. While previously requiring Ativan on a daily to bi-daily basis, the Pt did not require Ativan for the first three days of the amantadine trial. Subsequently he did receive Ativan daily for the remaining week. Pt was unable to receive PEG tube prior to this as he was persistently deemed hemodynamically unstable. Stabilization on amantadine permitted PEJ tube placement.

Patient 2

Pt was more aware and awake after the amantadine was started. Pt became interactive with her environment, reaching over with her left arm to the opposite side and moving on command. Pt was less lethargic and respiratory effect improved. However, there was no change on the right side of the patient, associated with the CNS lymphoma on the left cerebral hemisphere. Spontaneous breathing trials remained to be unsuccessful.

Discussion

We noticed slight improvements in both these patients while on the amantadine trial. Unfortunately, the level of improvement was not substantial enough for justifying further extension of the trial. Instead, we felt that the ability of Patient 2 to become aware of her surroundings more was a hinderance more than a benefit as her right side remained immobile. Although we noticed HDS in Patient 1 while on the amantadine trial, it was only for a short timeframe. In conclusion, it is worth considering adjunct amantadine therapy in patients with non-TBI neurological pathologies.

How to cite this article: Subramanian K, Kandoth E, McGarry T. Trial of Amantadine in Anoxic Brain Injury and CNS Lymphoma. *Journal of Scientific Innovation in Medicine*. 2020; 3(3): 25. DOI: https://doi.org/10.29024/jsim.68

Submitted: 09 June 2020 **Accepted:** 09 June 2020 **Published:** 09 October 2020

Journal of Scientific Innovation in Medicine is a peer-reviewed open access journal published by Levy Library Press.

OPEN ACCESS