Lance-Adams Syndrome: The controversy of treating post-hypoxic myoclonus in a delirious patient.

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INTRODUCTION
Lance-Adams syndrome (LAS) is characterized by generalized myoclonus with onset of days to weeks after anoxic brain injury. It generally has a better prognosis than its more acute counterpart, myoclonic status epilepticus. Treatment typically includes levetiracetam, benzodiazepines or valproic acid. We examine a case of LAS in a patient with prolonged hospitalization already complicated by impaired cognition and episodic delirium.

CASE DESCRIPTION
A 65-year-old male with a recent prolonged ICU hospitalization complicated by a cardiopulmonary arrest presented for volume overload. On physical exam, he was noted to have anasarca, cognitive impairment with SLUMS 21/30 and quick, irregular, involuntary myoclonic jerks with symmetrical hyperreflexia. Per the patient's wife, he began to experience the jerk-like movements approximately two weeks after his hospital discharge. At first the symptoms were mild, but then they became more frequent and occurred during sleep. They also caused the patient significant distress due to the inability to eat.

DISCUSSION
The persistent nature of LAS can cause significant distress via complications such as tongue-biting, sleep disorder and muscle exhaustion. However, there remains a paucity of randomized controlled trial data to define the proper treatment of this condition. Treatment with levetiracetam, benzodiazepines or valproic acid is most commonly used. Doses are started low and titrated upward for symptom relief. Due to the possible side effects of these treatments, this can become extremely challenging for patients with concomitant LAS and delirium. When faced with this clinical situation, treatment must be weighed against the possibility of exacerbating a cognitive deficit, particularly one that could prove dangerous in the hospital setting. However, the risk of under treatment of the condition is not small and may prove more bothersome to the patient than is realized. In this case, the myoclonic jerks were preventing restful sleep, impairing the patient's PO intake and the tongue-biting was constant enough to cause excessive pain and discomfort which was likely contributing to his cognitive dysfunction.

IMPLICATIONS
Treatment of LAS may be clinically challenging in the face of worsening delirium, especially in elderly patients who have experienced a prolonged hospitalization and previous signs of cognitive impairment. This complicated clinical picture can be navigated by careful investigation into the direct causes which potentiate confusion in the hospital setting which in our case was Lance-Adams syndrome.