

2016 Annual Scientific Meeting
FIT Open Mic Competition

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PRESENTATION INFORMATION

Title of Presentation: Is It Time To End the Physo-stigma?

Abstract: Physostigmine is an effective antidote for the anticholinergic toxidrome. Unfortunately, it is one of the most maligned medications in the toxicologist's toolkit and, arguably, one of the most underused. The drug has been utilized in clinical practice since the mid 1800s and reached a peak in use during the 1960s and 1970s when it was considered a part of the "coma-cocktail" for the treatment of undifferentiated delirium. Largely as a result of a two patient case series published 35 years ago, it abruptly saw a significant reduction in use. This case series presented a pair of patients given physostigmine after ingesting large overdoses of tricyclic antidepressants who already suffered from prolonged QRS intervals, severe bradycardia, and seizures. Through a retrospective lens, the patients predictably became asystolic and had poor outcomes. In the intervening years, several studies have demonstrated the safety and efficacy of the antidote in selected patients. Further, as mounting evidence suggests that alternative treatments (chemical sedation, intubation, and ICU placement) entail considerable risk, the discerning toxicologist may question whether the pendulum has shifted too far away from physostigmine. By presenting the most up-to-date and compelling research regarding the antidote, along with the oft-ignored (but no less compelling) morbidity associated with alternative treatments, I will question whether it is time to bring an end to the "physo-stigma."

Objective 1:

To review the historical use of physostigmine and the basis for the current stigma

Objective 2:

To discuss the literature investigating the efficacy and adverse events related to the use of physostigmine

Objective 3:

To propose indications for the use of physostigmine in modern toxicological practice