Zucker Hillside Hospital
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DONALD AND BARBARA ZUCKER SCHOOL *of* MEDICINE AT HOFSTRA/NORTHWELL

Altered Mental Status Secondary to Clonidine Addiction and Withdrawal: A Cautionary Tale

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With respect to this poster, in the 24 months prior to this declaration there has been no financial relationship of any kind between the parties listed above and any ACCME-defined ineligible company which could be considered a conflict of interest.

Background

- Altered mental status (AMS) is a nonspecific change in the baseline level of awareness, cognition, attention, or consciousness (LaHue, 2022).
- Clonidine is a sedative, and antihypertensive medication that has abuse potential and can be life-threatening in the case of overdose or withdrawal.
- We present a case of a patient with polysubstance dependence who presented with AMS with an unclear etiology and was ultimately found to be in clonidine withdrawal.

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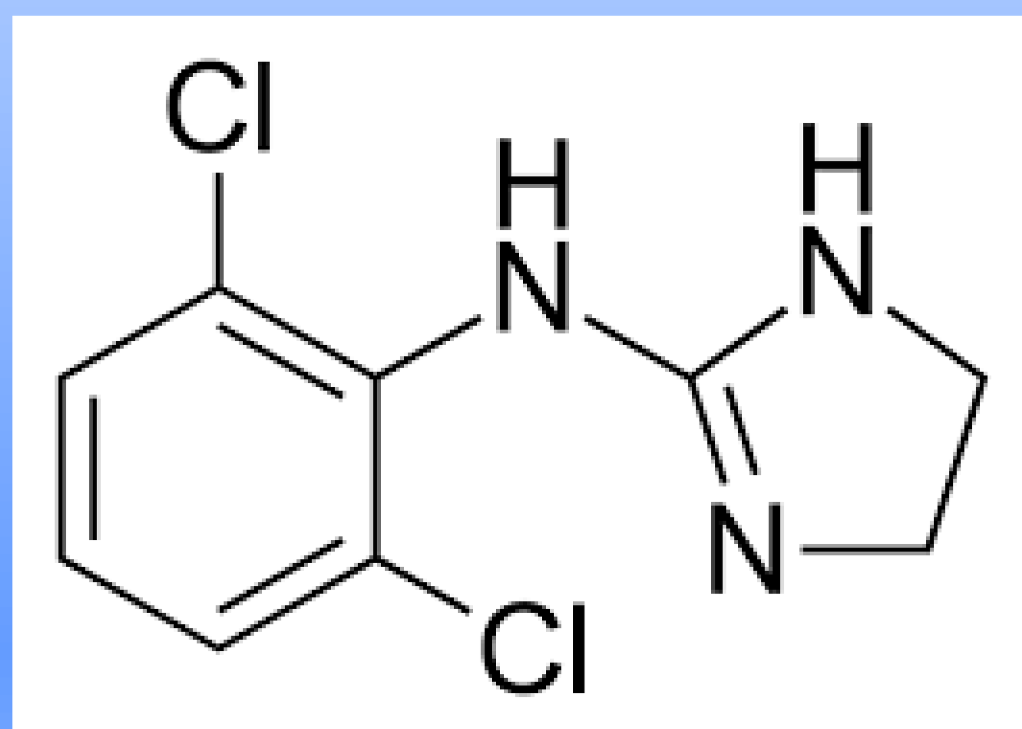

Case Presentation

- A 50-year-old male, with a past psychiatric history of substance use disorder (benzodiazepines and opioids) in remission, obsessive-compulsive disorder, and attention-deficit/hyperactivity disorder, presented to the emergency department with a 1-day history of disorientation, slurred speech, word-finding difficulty, and AMS. The patient's history was notable for being prescribed clonidine and olanzapine off-label for insomnia.
- He was found to be hyponatremic to 121 mmol/L, was tachycardic to 125 beats per minute, and hypertensive to 181/115 mmHg upon initial assessment.
- Multiple medical specialties were consulted, including toxicology, neurology, infectious disease, and consultation liaison psychiatry.
- Initially, the concern was for a possible overdose of clonidine and olanzapine. The differential diagnoses included alcohol, benzodiazepine, and/or other substance intoxication vs withdrawal, as well as concern for possible infection.
- The patient was placed on a lorazepam taper, however his mental status and clinical picture worsened with further agitation, tachypnea, fever, tachycardia, hypertension, and myoclonus.
- A lumbar puncture was performed and was negative for any infectious etiology. Imaging including a CT head and CT abdomen/pelvis were unrevealing. He was ultimately transferred to the intensive care unit and placed on a dexmedetomidine drip. He had steady improvement while on dexmedetomidine

Hospital Day 1 (Initial Assessment)	Hospital Day 4 (On Lorazepam taper)	Hospital Day 5 (On dexmedetomidine drip)
HR 125 bpm, BP 181/115	HR 105 bpm, BP 175/97	HR 94 bpm, BP 129/84

- His mother provided collateral information that was key to understanding his presentation. The mother visited the patient's residence while he was admitted and found that he was buying clonidine pills from India and was abusing them. As the patient's mental status cleared, he admitted to his clonidine addiction
- Dexmedetomidine was eventually tapered, and he was started on antihypertensives to treat hypertension. He was ultimately discharged on a beta-blocker for concern for hypertension and eventually transferred to a dual diagnosis psychiatry unit for further treatment of his addiction

Discussion

- Clonidine is a commonly prescribed medication with various indications that has abuse potential (Mitchell 2021).
- Clonidine withdrawal can lead to a catecholamine surge resulting in hypertensive crisis (Shaw 2015).
- Although he had a history of multiple substance use disorders, his history of clonidine use was a clue to the cause of worsening symptoms, as he had worsening AMS despite supportive care, avoiding the usage of antipsychotic medication, and using lorazepam for agitation.
- Treatment of clonidine withdrawal with dexmedetomidine proved to be efficacious due to its structural and functional similarities to clonidine.

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Conclusion

- Our case highlights the importance of understanding the multiple etiologies of AMS, including drug intoxication and withdrawal, particularly with commonly prescribed medications.
- Clonidine has abuse potential, and clonidine withdrawal must be considered in the differential diagnosis in a patient with hypertensive crisis and AMS who is being prescribed clonidine.

References

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