Psilocybin-Induced Wide Complex Bradycardia

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INTRODUCTION

- Magic mushrooms containing psilocybin (4-phosphoryloxy-N,N-dimethyltryptamine) are frequently abused worldwide for their hallucinogenic properties.
- Typically, patients in the emergency department presenting with psilocybin toxicity will present with visual hallucinations, tachycardia, mydriasis, and anxiety due to the sympathetic effects of psilocybin.
- In this case report, we present a young man with syncope after ingestion of psilocybin-containing mushrooms found to have a wide complex bradycardia.

PATIENT DESCRIPTION

- An 18-year-old male without past medical history initially presented to the emergency department with syncope after first time ingestion of magic mushrooms (Figure 1) a few hours prior.
- Per family, the patient reportedly became nauseated and collapsed, becoming unresponsive for approximately 30 seconds.
- There was no reported seizure-like activity or post-ictal period.
- On initial assessment, patient appeared fatigued but was otherwise well appearing and without complaint on arrival to the emergency department.
- Initial vital signs were: HR 45, BP 135/84, T 36.7. Physical exam revealed bradycardia but otherwise unremarkable.
- A comprehensive drug screen was positive for caffeine, nicotine, and psilocybin.
- Initial electrocardiogram showed bradycardia and a wide complex QRS complex with T wave inversions (Figure 2).

Figure 1. Psilocybin mushrooms

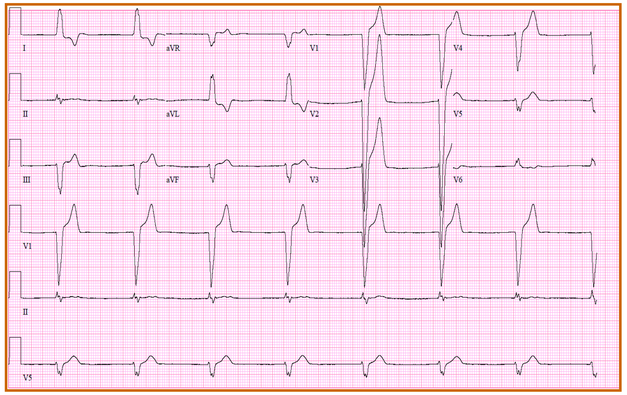

Figure 2. Initial electrocardiogram showing bradycardia with a rate of 45bpm and a wide complex QRS complex with T wave inversions

INTERVENTION

- The patient was admitted to the ED observation unit for further workup.
- A CT head and echocardiogram were obtained, both of which were unremarkable.
- He remained bradycardic on telemetry without recurrent QRS widening.
- The patient was back to baseline the next day, and he was discharged with ZIO monitoring with plans to follow up with cardiology.
- The ZIO patch was unremarkable, without recorded arrhythmias.

CONCLUSIONS

- This is an atypical presentation of psilocybin toxicity in an 18-year-old previously healthy male after ingestion of magic mushrooms.
- The classic symptoms include visual hallucinations and sympathetic excitation including tachycardia, hypertension, and mydriasis; this patient presented with bradycardia, mild hypertension, and a wide-complex QRS that self-resolved.
- Supportive care is the standard of treatment with resolution of symptoms occurring within a few hours.