

Tryptamine Trauma! N,N-Dipropyltryptamine associated fall, seizure and rhabdomyolysis.

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Background: N,N-Dipropyltryptamine is a potent hallucinogen whose use may be increasing but there is a paucity of literature regarding its toxicity.

Hypothesis: N,N-Dipropyltryptamine use may predispose patients to seizures and rhabdomyolysis..

Methods: This is a single patient chart review. A 17 year old male with history of ADHD and opioid abuse was noted by family to be hallucinating and then became agitated and violent after smoking "marijuana." He had a physical altercation, fell and struck his head. He began having seizure-like activity. EMS was called and administered midazolam 5 mg IV which stopped the seizures. On arrival in the ED, he was unresponsive and endotracheally intubated. He had a pulse of 169 bpm, blood pressure of 128/59 mmHg and temperature of 98.6°F. He had multiple abrasions to his upper extremities and a scalp laceration. Laboratory evaluation showed an initial pH of 6.96, leukocytosis of 25.6 K/UL, serum creatinine of 1.75 and CK of 404 U/L. He was admitted to the trauma intensive care unit. He was extubated 2 hours later but became agitated and confused. This persisted for the next 4 days and required lorazepam and haloperidol along with dexmedetomidine infusion for sedation. He was found to be in rhabdomyolysis and his CK peaked at 83000 U/L forty-eight hours after admission and remained elevated upon discharge. He was discharged after 6 days and had a normal CK and creatinine two weeks later.

Results: Admission serum and urine were obtained and analyzed by liquid chromatography time-of-flight mass spectrometry (TOF 6230, LC 1260, Agilent) using a library of 550 drugs including 285 novel psychoactive substances. N,N-Dipropyltryptamine was detected in both serum and urine at concentrations of 1740 ng/ml and 971 ng/ml, respectively.

Discussion: N,N-Dipropyltryptamine is a rarely encountered tryptamine with no published human toxicity. Other tryptamines, such as 5-methoxy-N,N-diisopropyltryptamine, have been reported to cause similar toxicity, including rhabdomyolysis. However, seizures have not previously been described but may be confounded by the traumatic head injury in this case.

Conclusion: Health care providers should be aware of N,N-dipropyltryptamine's potential association with seizures and rhabdomyolysis.