

Clinical manifestations of 3-methoxy-phencyclidine intoxication

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Background: 3-methoxy phencyclidine (3-MEO-PCP), a designer drug sold online as a 'research chemical', is a high-affinity NMDA antagonist that is emerging as a novel drug of abuse.

Hypothesis: 3-MEO-PCP toxicity is consistent with other dissociative agents, but may be more sedating.

Methods: This is a retrospective review of a consecutive series of three patients with suspected 3-MEO PCP intoxication. Hospital records, including comprehensive urine drug screen (CUDS), and other information in the patient record were examined.

Results: I: A 25 year-old male with a history of substance use disorder was brought to the emergency department with altered mental status and suspected intoxication. On arrival, he was noted to be somnolent with nystagmus, borderline tachycardia, and otherwise had unremarkable vital signs. His mental status resolved over the course of a 48-hour hospital stay, and he was discharged home. Urine gas chromatography/mass spectrometry analysis (GC/MS) showed 3-MEO-PCP and flubromazepam, which he admitted to taking, as well as gabapentin and tramadol. II: A 32 year-old male presented with obtundation and borderline tachycardia after suspected overdose and was intubated for respiratory depression. He was extubated one day later, at which time he was subsequently discharged. GC/MS was positive for 3 MEO-PCP and tramadol. III: A 20 year-old male with a history of polysubstance abuse was brought to the emergency department after his family found him to be confused and dystaxic. On arrival to the emergency department, he was tachycardic, somnolent, and dysarthric, and in possession of a bag marked as containing 3-MEO-PCP, which he admitted to taking. A basic drug screen was positive for marijuana and cocaine only. His toxicity resolved the next day.

Discussion: Three patients with exposure to 3-MEO-PCP are presented. While the clinical presentations in each patient may have been confounded by the presence of other substances (which varied), somnolence and an elevated heart rate were present in each case. Each patient survived to hospital discharge without long-term sequelae.

Conclusion: 3-MEO-PCP is an emerging drug of abuse with sedative and dissociative toxicity profiles.