Mississippi Toxicology Bulletin

VOLUME 6, ISSUE 1

SPECIAL POINTS' OF INTEREST:

- THC Edibles
- PCP in Mississippi
- Mass Spectrometry in Chronic Pain Mgmt

UMMC Analytical Toxicology Lab (601) 984-1614

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Technologists are always on call for Emergencies

THC Edibles: Toxic for Peds & Pets

THC-infused candies, brownies and other food products are popular, widely available, and legal in many states. Product packaging is nearly indistinguishable from many popular candy products. Increased availability of THC edibles has resulted in increasing numbers of unintentional exposures in children and pets. Packages often contain 10 or more adult doses. High doses can produce undesired effects such as paranoia, panic attacks and psychosis. Patients often present with dizziness, confusion, anxiety, lethargy, hallucinations, nystagmus, and vomiting.

Case Report: THC Intoxication

By Karla Perrizo MD

SPRING 2021

A 4 year old female presented to the emergency department with altered mental status, minimal responsiveness, inability to walk and "shaking spells". She had no significant medical history. Her vital signs were stable with episodes of tachycardia. Significant lab values included elevated creatine kinase and elevated venous pCO2. An immunoassay toxicology screen was positive for cannabinoids, which

was confirmed by mass spectrometry. She was admitted for observation and social work evaluation during which, the mother disclosed THC edibles in her home. The patient later admitted that her older sister had given her some candy. It is unclear how much she consumed.



Phencyclidine in Mississippi

By David Vearrier MD

Phencyclidine (PCP) is a dissociative anesthetic initially used during surgery in the 1960s. It was discontinued due to high rates of post-operative psychosis / dysphoria and subsequently became popular as a drug of abuse in the 1970s. Since that time, cocaine and methamphetamine have eclipsed the popularity of PCP, although waves of PCP use still occur. Mississippi is currently experiencing such a wave. A common method of PCP use involves dipping a cigarette into an organic solvent containing PCP, which coats the cigarette prior to it being smoked. This is sometimes referred to as smoking a wet, angel dust, or embalming fluid.

(continued)

Phencyclidine (continued)

PCP intoxication frequently results in psychomotor agitation, delusions, and aggressive or bizarre behavior. Other common sequelae include traumatic injuries, rhabdomyolysis, hyperthermia and seizures. Treatment may include sedative-hypnotics, anti-psychotics, and neuromuscular blockade.

Case Report: PCP Intoxication

A 40-50 year old male was brought to the emergency department by medics after being found with seizure activity in a parking lot. Medics gave intramuscular midazolam with resolution of seizure activity. Upon arrival, the patient was intubated for depressed mental status and admitted to the intensive care unit. A search of the patient's belongings revealed a small 2-ounce mouthwash bottle containing an oily liquid, which was determined to contain phencyclidine by the UMMC Analytical Toxicology Laboratory. The patient's creatine kinase was elevated at 3,395 U/L (normal 38-174) and mild kidney injury was present on admission with blood urea nitrogen of 24 mg/dL (normal 8-23) and serum creatinine of 1.25 mg/dL (normal 0.67-1.17), which resolved over the following day.

By David Vearrier MD



Right: Confiscated bottles containing PCP in organic solvents.

Confirmatory Testing for Chronic Pain Management By Taylor Clark BS, MS



A 44 y/o male presented to a pain management clinic for chronic pain after a fall. He was prescribed hydrocodone/acetaminophen for pain. Two months later during a scheduled clinic visit, his urine tested positive for opiates by an immunoassay drug screen. Confirmatory testing by mass spectrometry determined exceedingly high concentrations of hydrocodone and acetaminophen but no metabolites which, indicated prescription noncompliance. Individuals who divert and sell their prescription medications for profit are known to dip or scrape a tablet into their urine specimen to feign prescription compliance. The noncompliance would not be detected with rapid immunoassay screens. This and other types of noncompliance are easily determined by confirmatory mass spectrometry analysis which, positively identifies parent drugs and their metabolites. Mississippi currently requires quarterly drug testing for patients prescribed opioids and/or benzodiazepines for chronic noncancerous pain. This case highlights the need for comprehensive and confirmatory testing in chronic pain management patients.

The Mississippi Toxicology Bulletin is a semiannual newsletter published by the Analytical Toxicology Laboratory at the University of Mississippi Medical Center. Articles, reports or case studies for publication may be submitted to Dr. Patrick Kyle at <u>pkyle@umc.edu</u>.