Case Report

Silent but Costly: Bath Salts and the Importance of History Taking

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Abstract

Bath salts are a group of recreational drugs derived from synthetic Cathinone [1] (amphetamine analogs). MDPV [1-5] (3, 4-methylenedioxypyrovalerone) is one of its primary derivative which is widely used (by snorting, Ingestion or Injection) for its excitatory effect on Central Nervous system [3,6].

We present a case of a 54 year old Caucasian man who initially presented with altered mental status. He continued to have a waxing and waning delirium in spite of extensive investigations and medical management of metabolic disturbance. Later, the patient’s brother provided a history of the use of both salts. Bath salts are used as a street drug1 and these substances are not detectable by routine urine toxicology screen [1]. So, obtaining a proper recreational drug use history from the patient and the family is very crucial to establish the correct diagnosis and to aid in cost effective approach to management.

ABBREVIATIONS

MDPV: 3, 4-Methylenedioxyprovalerone; CNS: Central Nervous System; DM: Diabetes Mellitus; HT: Hypertension; CAD: Coronary Artery Disease; STEMI: ST Elevation Myocardial Infarction; DES: Drug Eluting Stent; GERD: Gastro Esophageal Reflux Disease; HR: Heart Rate; BP: Blood Pressure; WBC: White Blood Cell Count; BUN: Blood Urea Nitrogen; CPK: Creatine-phosphokinase; CXR: Chest X Ray

INTRODUCTION

Bath salts are a group of recreational drugs derived from synthetic Cathinone [1] (amphetamine analogs). They have MDPV [1-5] (3, 4-methylenedioxypyrovalerone) which acts as a dopamine norepinephrine reuptake inhibitor, producing CNS stimulation [3,6]. It is widely used by snorting, Injection or ingestion [6].

CASE PRESENTATION

54 year old white male was admitted with altered mental status after stumbling. Pt had waxing, waning delirium with hallucinations [7,8] and episodic periods of lucidity. Family was unavailable to provide history. His past medical records showed treatment for Chronic back pain, Type2 DM, HT, recent CAD status post STEMI (DES), GERD, Hyperlipidemia and right hip surgery for a traumatic fracture. He was a smoker, but did not take alcohol or drugs in the past.

Patient vitals were Temp 97.3, HR 76, RR 18, BP 144/94mmhg, O2 sats 100% on 2 L. Patient had periods of lucidness and other times disoriented. He moaned on stimuli and reported some chest pain. Cranial nerves 2-12 were grossly intact. No focal neuromuscular deficits.

Positive Lab values were WBC 15.4, K+ 7.7, Chloride 100, Bicarbonate -17, BUN 76, Creatinine 7.0(baseline 1.1), Glucose 186, Calcium 10.4, Magnesium 2.3, UA – some proteins, moderate blood, Serum alcohol and lactate – negative; Cardiac enzymes – negative; Serum CPK – 156; Vitamin B12- 265. Imaging: CXR and Renal Ultrasound – Normal; CT Brain showed ventriculomegaly. A urine drug screen was positive for benzodiazepines and cannabis.

The differential diagnoses [8] included Benzodiazepine withdrawal; delirium due to psychological and neurological etiologies. Infectious, Metabolic and endocrine disorders were ruled out. Normal pressure hydrocephalus was suspected and was appropriately ruled out. Symptoms persisted with correction of metabolic disturbance. It was at this time the patient’s brother provided history that the patient had engaged in illicit drug use like bath salts and marijuana laced with other synthetic agents. Patient’s delirium resolved and was discharged to a skilled facility and later to home.

DISCUSSION

Bath salts are widely available either individually or admixed with other illicit drugs and sold as a street drug [10]. The substances in bath salts are not detectable by routine urine...
So, obtaining a proper history with questions pertaining to substance abuse from the patient and the family is very crucial to establish the correct diagnosis and may obviate the need for multiple costly test and consultations.

REFERENCES


