

A Terrifying Drug Threats the Streets: Flakka - A Case Report

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Abstract

Flakka, also scientific named alpha-pyrrolidinopentophenone, is a synthetic drug substance that gives the person who uses it more self-confident, agitation, completely closes the consciousness. It has attracted attention in recent years due to the social destruction and become medical pathological condition in worldwide. We present a case who admitted using powdery drug, with similar sign and symptoms with Flakka, in which toxicological screening tests are normal to create awareness.

Keywords: Flakka; Street; Emergency Department

Introduction

New psychoactive substances have attracted attention in recent years due to the social destruction and medical pathological conditions they have created throughout the world. One of these substances is α -pyrrolidinovalerophenone (α -PVP), also known as 'Flakka' (Figure 1).



Figure 1: Flakka (α -PVP).

This drug are synthetic materials but origin of this material, also known as khat plant (*Catha edulis*), is a plant that grows mainly in East Africa and the Southwest Arabian Peninsula (Figure 2).



Figure 2: *Catha edulis*.

It is suggested that the stimulant effect is due to the increase in neurofnal activity of dopamine and noradrenaline, and the decrease in monoamine oxidase levels [1]. The clinical picture of these patients is called 'exciting delirium' which is characterized by hallucinations, aggression, agitation and self-harm behaviors. Physiologically, tachycardia, hyperthermia, hypertension and muscle contractions can be seen [2]. Herein, we present a case admitted to our emergency room with similar complaints.

Case Report

A white male at the age of 30 y was brought to our emergency department on ambulance with the complaints of agitation and blurred consciousness. At physical examination, he was agitated, Glaskow Coma Score (GCS) was 8, both pupils were mydriatic, direct and indirect light reflex was normal, blood pressure was 130/73 mmHg, and pulse rate was 120 bpm. Masseter muscle spasm and bruxism were observed. Other system examinations were normal. Electrocardiography revealed sinus tachycardia. Bedside measured plasma sugar was 105 mg/dL. No acute pathology was found in cranial

computerized tomography. Poisoning or the use of a psychoactive substance was considered as pre-diagnosis. The patient was monitored. In laboratory examination white blood cell was measured as $13,000 \times 10^3/\mu\text{l}$, lactate level 3.9 mg/dL, pCO_2 48 mmHg, pO_2 53 mmHg and pH was 7.35, while were other parameters were within normal limits. Diazepam (Diazepam) 10 mg intravenous was administered for agitation together with 1000 cc isotonic fluid. The patient's urine sample was examined for toxicology. These tests were consist of benzodiazepine, amphetamine, methamphetamine, barbiturate, opioid, cannabinoid, paracetamol, cocaine (Triage Tox Drug Screen; Alere, Waltham, Massachusetts, USA) and bonzai (Drug-Screen Spice/K2; Nal von Minden, Moers, Germany). No metabolites were detected. The patient was thought to have received a some of new psychoactive substances (may be Flakka), which was recently encountered in our country in such patients, because of sympathomimetic clinical presentation of our patient and no evidence from these active agents in the screen. Agitation symptoms of the patient regressed at the 4th hour of the follow-up whose GCS raised to 15 stated that he used drug as powder in the form of cigarette (may be Flakka). Also, he added that he had bought it from his friend. The patient's complaints disappeared, and he had no additional symptoms when he was discharged at the 6th hour follow-up.

Discussion

In the medical and non-medical literature, it is emphasized that the use of new generation psychoactive substances is becoming widespread day by day in the United States, the real prevalence of psychoactive substances is unknown because it is continuously being modified and its detection is almost impossible [3]. Flakka are frequently inhaled (smoked and insufflated) or taken orally [2]. The person taking new psychoactive substances may experience cardiovascular abnormalities, insomnia, agitation, anxiety, dreaming, hallucinations, muscle spasms, seizures, paranoia and aggression. It has been reported that these stimulant effects usually last 3-4 hours [4]. There is no rapid and readily available diagnostic test for this drug [5]. We suspected a new generation of psychoactive drugs intake in our patient because of the negative results of urine examination for other toxicodomain tests.

Symptomatic treatment of agitation and psychotic symptoms is first applied in the management, since there is no specific antidote treatment. Benzodiazepines are ideal agents when these two conditions are encountered [6]. In our case, benzodiazepines were used together with hydration for symptomatic treatment [7].

Conclusion

Usage of new generation psychoactive drugs, which also started to enter our country recently, should be kept in mind in the differential diagnosis of patients admitted to emergency department with psychosis and agitation who have negative results in toxicological test.

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