A CASE REPORT OF A TOXIC PSYCHOSIS INDUCED BY DATURA STRAMONIUM

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OBJECTIVES

The main objective of this work is to present a clinical case of a patient admitted to a general psychiatric ward for a toxic psychosis induced by the consumption of Datura Stramonium (DS). This work also aims to call attention to the importance of inquiring about the consumption of natural products as well as other known psychotropic drugs.

BACKGROUND

DS is a toxic and potentially fatal plant of the Solanaceae family, native from Asia, but found in many countries in tropical and warm temperate regions.(1,5) It is known and used for its medicinal and hallucinogenic properties for centuries. (1-4)

In the clinical practice, intoxication arises sometimes unintentionally, but its sometimes fatal toxic effects (derived from anticholinergic properties) are seen mostly in teens who use these plants for its psychotropic properties. (5) The toxins in Jimson Weed are alkaloids with strong anticholinergic properties. They include: hyoscyamine, hyoscyne, atropine and scopolamine, that are present in the different portions of the plant in different concentrations (4,5). They act as competitive antagonists to acetylcholine at peripheral and central muscarinic receptors: they exert their effects on exocrine glands (altering sweating and salivation), and smooth and cardiac muscle, and the CNS, resulting in a central anticholinergic syndrome of acute psychosis or delirium (5).

MATERIALS AND METHODS

Hospital records were analyzed and a review of the literature on Datura Stramonium was made.

RESULTS

J.S., male, 31 years old, single, unemployed, lives with his mother, 6th grade.

Accompanied for 4 years in child and adolescent psychiatry for depressive symptoms.

Substance consumption history: tobacco, LSD, MDMA, alcohol, Cannabis and cocaine Datura Stramonium. One experience with ketamine and ayuhasca.

"... A couple of psychologists use two sensors to locate me. One was put in my lung during a snorting of cocaine, the other was put in my ear during an ayuhasca ceremony...people talk to me through the sensors... I hear my friends, and music, and other people making mocking me..."

5 months long psychotic episode with verbal hallucinations, thought eco phenomena and bizarre delusions.

More than 7 months – **daily consumption of Datura Stramonium** infusion until admission.

Tried **smoked cocaine** daily for some weeks as an anxiolytic – without success.

Stopped more than 3 weeks before admission.

Compulsory admission
July 20th 2018

No abnormalities in the admission blood work or general examination.

Toxicology analysis were negative

Paliperidone
9mg/day

Completely asymptomatic
23rd July 2018

CONCLUSIONS

We present a case of a young man with extensive contact with psychoactive drugs, who was admitted in a general psychiatric ward for a toxic psychosis caused by long term consumption of DS infusion. This diagnosis was established because of the pattern of consumption, the absence of other drugs and the rapid and total resolution of the case once the DS was suspended.

The Datura is a dangerous plant, known by its narcotic and medicinal effects, and is sometimes misused as a New Psychoactive substance, as reported by the United Nations Office on Drugs and Crime in 2013. (1)

In the last 2 decades there seems to be a growing trend in Canada, USA and Europe of its usage among teens, mainly because of its vast availability and zero cost (3)

Because of its anticholinergic actions, DS can be highly toxic (sometimes fatal), making it important for health professionals in general to be aware of the existence of this plant. (1-5)

REFERENCES

- 1- Khanra S, et al. (2015) Chronic non-fatal Datura abuse in a patient of paranoid schizophrenia: A case report; Addictive Behaviors 43, 39-41.
- 2- Soni P, et al. (2012) Pharmacological properties of Datura stramonium L. as a potential medicine tree: an overview; Asian Pacific Journal of Tropical Biomedicine 2(12), 1002-1008.
- 3- Stella L, et al. (2010) Datura Stramonium Intake: A report on three cases; Journal of Psychoactive Drugs 42:4, 507-512.
- 4- Gaire B, Subedi L (2013) A review on the pharmacological and toxicological aspects of Datura stramonium L.; Journal of Integrative Medicina, 11(2), 73-79.
- 5- Arnett, A (1995) Jimson Weed (Datura stramonium) Poisoning. Clinical Toxicology Review Vol 18 (Nº3).