

A psychotic episode after ayahuasca and secretion of Bufo Alvarius toad consumption: A case report

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INTRODUCTION

The use of the secretions of Bufo Alvarius toad has recently become popular in various ritual settings. This popularization means that its use is becoming common in retreats where ayahuasca is also consumed as means for spiritual exploration. Ayahuasca is usually prepared by the prolonged decoction of the vine *Banisteriopsis caapi* together with the leaves of the shrub *Psychotria viridis*. *B. caapi* contains β -carbolines alkaloids, which are reversible monoamine oxidase A (MAO-A) inhibitors, while *P. viridis* contains the serotonin_{2A/2C/1A} receptor agonist hallucinogen N,N-dimethyltryptamine (DMT)[1]. The inhibitor effects of the MAO (monoamine oxidase) prevents the destruction of tryptamine compounds in the gastrointestinal tract, also inhibits their metabolism by the liver, which results in an increase of the chemicals reaching the brain. The main components of the secretion from parotoid glands of Bufo alvarius toad are 5-methoxy-N,N-dimethyltryptamine (5-MeO-DMT), which acts as a serotonin 5-HT-1A/5-HT-2A/C receptor agonist, and 5-hydroxy-N,N-dimethyltryptamine, commonly known as bufotenine. When the dried secretion is smoked it produces a psychedelic experience within 15 s that may last up to 20–40 min [2]. Combining those psychedelic substances can be dangerous.

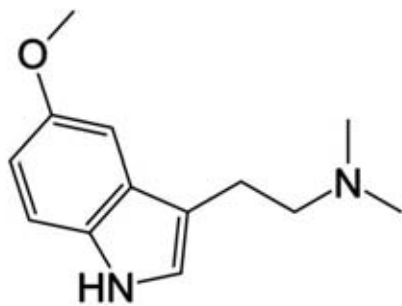


Fig. 1. Structure 5-methoxy-dimethyltryptamine (5-MeO-DMT). Wikimedia public domain.

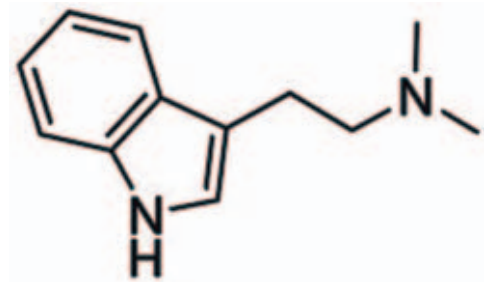


Fig. 2. Structure of N,N-Dimethyltryptamine (DMT). Wikimedia public domain.

CASE PRESENTATION

The patient was a 22-year-old man from Mozambique, without previous personal or familiar psychiatry history who has moved to Barcelona to complete his studies. During his first month in Barcelona he participated in an ayahuasca ritual. He reported a profoundly meaningful experience that helped him in that moment of his life. Four months later, he decided to undertake another ayahuasca ritual looking for self-knowledge. This time the “ritual” lasted three days: He ingested 15 mg of ayahuasca daily and also smoked secretions of Bufo 12 hours after the first ayahuasca consumption. Right after smoking Bufo venom he began having unspecified fear with auditory and visual hallucinations, anxiety, and feelings of suspiciousness that lasted for more than 72 hours. Then he decided to consult. After being in the emergency unit for 36h, he was admitted in the Dual Pathology Unit of Hospital del Mar and diagnosed as substance-induced psychotic disorder. Treatment with 10mg of Olanzapine and 5mg of Diazepam was implemented. After 5 days of hospitalization the symptoms remitted completely.

DISCUSSION

It is unclear why some people suffer protracted psychotic reactions after psychedelic intake. Since the use of ayahuasca and bufo alvarius is growing internationally popular, it is possible to observe an increase of patients who present psychosis induced by substances. On the other hand, several present day studies suggest that these substances may be useful for treating various psychiatric disorders and addictions. Both seem to have a relatively good safety profile of use in spiritual and recreational settings, with little likelihood of producing addictive problems in most users [3,4,5]. Future studies should explore the prevalence of psychiatric reactions after its use and the contributing factors for developing psychosis.

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