

Short Communication

PSYCHOACTIVE PROPERTIES OF PERGOLIDE MESYLATE

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Ergot alkaloids have long been known to have psychoactive properties. Pergolide mesylate is an ergot derivative primarily used for the treatment of parkinsonian symptoms (Medical Economics 1995). This substance is related to lysergic acid and shares properties of the other members of this class of drugs (Douglas 1980). The psychoactive properties of some of these derivatives, such as lysergic acid diethylamide (LSD), are quite striking (Hoffer and Osmond 1967). A growing body of literature indicates that many ergot alkaloids have similar, but very modest psychoactive effects (Wilcox 1987; Ott & Neely 1980; Bigwood et al. 1979; Persyko 1972). In previous anecdotal reports, several authors have noted that some other pharmaceutical agents of the ergot class carry some mild degree of entheogenic effect. These include ergonovine and methysergide (Bigwood et al. 1979; Persyko 1972).

PHARMACOLOGY

Pergolide mesylate is an ergot derivative, dopamine receptor agonist active at both the D₁ and D₂ receptor sites. It is indicated as adjunctive treatment to L-dopa therapy in the management of Parkinson's disease. The normal dose is 3 mg per day. Clinical use of this agent has found it to be safe and effective in the treatment of parkinsonian symptoms. The clinical literature indicates that in controlled trials this substance along with L-dopa has been associated with rates of hallucinosis as high as 14% (Medical Economics 1993). Tolerance to this untoward side effect has not been reported in the literature. The following is a case report of an individual who intentionally misused pergolide mesylate to obtain a "psychedelic experience."

CASE REPORT

The patient was a 23-year-old single White male from a small midwestern city. He presented at a substance abuse treatment center for the treatment of polysubstance abuse. He reported a history of abuse of marijuana, LSD, and alcohol. He related that his use of LSD had been sporadic and that he had used it a grand total of perhaps 15 times over the past two years and had only used it 17 times in his life. He related that he had smoked approximately one joint of marijuana per day for the last four years.

His experience with pergolide mesylate was unusual. He related that at one point his normal drugs of abuse were hard to locate in this area. He had read some medical literature (i.e., the *Physicians' Desk Reference*) and also some lay press material (e.g., *The Hallucinogens* by Hoffer and Osmond), and surmised that ergot alkaloids had abuse potential. He was able to obtain some pergolide mesylate from an elderly relative with Parkinson's disease without the knowledge of the Parkinson's patient. The individual reported that after ingesting 10 mgs of pergolide mesylate he experienced nausea, headache, and dizziness. After about 30 minutes he felt a disassociative spell come over him, which he estimated lasted for approximately 45 minutes. Shortly after the onset of the disassociative phenomenon he experienced some visual hallucinations, which were characterized by unformed colors and visual distortions, where the size and shape of normal things seemed to be altered. This entire "psychedelic" phenomenon subsided gradually over about two hours and had completely disappeared within six hours. The young man said that he did not care to repeat the experience again. He did not report any unusual movements or muscular contractions; however, he did relate that he felt quite tense during the episode and had a feeling that he needed to walk around and move more frequently than normal in order to feel comfortable. No ill effects seemed to persist after his experiment and he subsequently returned to marijuana abuse when his drug of choice was more readily available.

DISCUSSION

This case is unusual in several aspects. For one thing, the subject in the case report is not a typical patient using pergolide mesylate for therapeutic reasons. Furthermore, he was not using it in conjunction with any other

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antiparkinsonian medication. It should also be noted that this individual had expectations of a psychedelic phenomenon and that he was also familiar with such experiences, suggesting the possibility of a placebo response.

It should be noted that pergolide mesylate does belong to the ergot family, which has several members that are known to cause hallucinations in normal individuals naive to psychiatric or psychedelic drugs. Abuse of this chemical should not be taken lightly. It has serious side effects and could be potentially life threatening to some individuals who are sensitive to it. This appears to be the first case report of abuse of this substance.

It is worth noting that abuse of standard medicinal preparations as well as unusual street remedies has been known to occur when individuals' drugs of choice are not readily available. It is anticipated that continued abuse of prescription medication for recreational purposes will continue to increase in individuals prone to substance abuse.

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