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INTERNATIONAL EDITION
**ACUTE DRUG ABUSE
EMERGENCIES**

A TREATMENT MANUAL

EDITED BY

PETER G. BOURNE, M.D.

*Drug Abuse Council
Washington, D. C.*



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EMERGENCY TREATMENT OF ACUTE ADVERSE REACTIONS TO HALLUCINOGENIC DRUGS

Roy Shoichet

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I. Introduction

Experimentation with various chemical substances has become a common activity in our society. As a result, the acute adverse reaction to hallucinogenic drugs is a common phenomenon in the emergency rooms of our general and psychiatric hospitals. Although the experimentation is most common in the adolescent and postadolescent age groups, it is no longer confined to any age or class of society, and all physicians should be familiar with diagnosis and treatment.

In spite of some minor differences of opinion regarding the proper treatment of adverse drug reactions, there remains a general consensus regarding safe management which will be outlined in this article.

II. The Hallucinogenic Drugs

The most commonly used and widely known hallucinogen is LSD (lysergic acid diethylamide)—a substance which is relatively easy to produce, given a supply of lysergic acid. Other common hallucinogens (see Table 1) include mescaline, psilocybin, DMT (dimethyltryptamine), DOM (dimethoxy-amphetamine)—also known as STP.

III. The Adverse Reaction

When taken in sufficient dosage, any of the above substances will produce a temporary psychotic state or trip, consisting largely of sensory illusions, distortions and hallucinations, feelings of euphoria and excitement, a sense of observing while participating, a feeling of tremendous insight, and the physical effects of nausea, sweating, tremors, and incoordination. In most instances, the experienced drug user will find these sensations pleasurable, and will control and enjoy them. The bad trip, or acute adverse reaction, occurs when the drug user experiences a loss of control and is flooded with anxiety, fearful

auditory, visual, depression, or the

The mental state from moment to moment, alternating with intense paranoia. At this time, and to others, suspiciousness of Baker (1970) cited while under the

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IV. Management

A. Diagnosis

1. CLINICAL ASSESSMENT

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2. LABORATORY

At present, serum or urine routine laboratory medical complications

B. Concurrent

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TABLE 1
Hallucinogens in Common Use

<i>1. Indolic (Indole derivatives)</i>	
a. LSD	
b. Psilocybin	
c. DMT	
d. DET	
<i>2. Nonindolic</i>	
a. Mescaline	
b. STP (DOM)	
c. MDA	(substances approximating a mescaline-
d. MDMA	cocaine mixture)
e. TMA	
<i>3. Miscellaneous</i>	
a. Nutmeg	
b. Stramonium (e.g., in asthma powder containing atropine, hyoscamine and scopolamine)	

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auditory, visual, and tactile hallucinations, paranoid delusions, intense depression, or the feeling that he is losing his mind.

The mental state of a person in this situation may vary considerably from moment to moment, with periods of autistic withdrawal alternating with intervals of apparent lucidity or intervals of fearful paranoia. At this time, the patient represents a potential danger to himself and to others. It is during this period of acute distress, fear, and suspiciousness that self-destructive or aggressive acts most often occur. Baker (1970) cites examples of both suicidal and aggressive behavior while under the influence of LSD.

On occasion, when large doses of medication or drug combinations have been taken, seizures and/or coma may complicate the situation.

IV. Management

A. Diagnosis

1. CLINICAL ASSESSMENT

Diagnosis of the acute adverse drug reaction is largely made on a clinical basis. The most useful information includes the approximate nature and quantity of drug, the time and route of intake, and any relevant historical or environmental factors predisposing to the bad trip. It is crucial to gain the confidence of the patient insofar as this is possible. Critical or judgmental attitudes should be avoided as they serve only to increase the patient's anxiety and paranoia and diminish the opportunity for satisfactory management. An understanding, but firm, approach is recommended.

2. LABORATORY ASSESSMENT

At present, the emergency identification of hallucinogenic drugs in serum or urine is not a practical aid to emergency treatment. However, routine laboratory investigations are useful to rule out or assess possible medical complications.

B. Concurrent Medical Complications

In spite of the difficulty in taking a routine history, preexisting medical conditions, such as diabetes, must be ruled out or reassessed and treated. Specific medical complications of the life of the chronic

drug abuser include various vitamin deficiencies, bacteremias, focal infections, thrombophlebitis, infectious and serum hepatitis, and venereal disease.

C. Hospitalization

In most instances, hospitalization is desirable. In any case, the patient must be placed in a situation allowing for constant observation by trained personnel. The patient himself will find this reassuring. In most instances, he has come to the hospital after exhausting his own therapeutic resources. Usually an individual on a bad trip will attempt to control it by taking whatever tranquilizers are available, or by talking to trusted friends. Generally, he turns to the hospital setting in desperation and requires firm management and supervision. As mentioned before, during this state of acute anxiety, the patient presents a significant risk to himself and to others.

D. Psychotherapy

Psychotherapy of a supportive nature is recommended. Frequent brief contacts with the patient are most useful and consistency of treatment personnel is an additional advantage. The object of psychotherapy is usually to help the patient test reality, to reassure him regarding the temporary nature of his painful drug reaction, and to assure him about the constant availability of helpful trained personnel. Metzner (1969), amongst others, recommends a more intensive form of psychotherapy, with the aim of integrating the psychotic experience and of producing useful and permanent insight into chronic personality problems. He feels psychotherapy is the treatment of choice and implies that other treatment should be withheld if they interfere with this process.

However, psychotherapy with LSD has not produced impressive results even when administered under controlled conditions by experienced therapists and therefore the author can not recommend it as the sole form of treatment.

E. Chemotherapy

1. LSD

The adverse reaction to LSD usually lasts from 8-24 hr. Gastric lavage is usually of no value and is a frightening experience for the patient. When LSD is known to be the only substance ingested, pheno-

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2. STP

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3. STRAMO

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V. Prognos

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thiazines are satisfactory. Doses in the order of 100 mg Stat. of chlorpromazine (Largactil-Poulenc) by mouth or intramuscularly every 3-4 hr will generally suffice. Vital signs must be followed closely because of the central and peripheral actions of this medication. If LSD has been taken in combination or if its purity is in doubt, I would recommend diazepam (Valium-Roche) or chlordiazepoxide (Librium-Roche). The dose for diazepam would be 40-50 mg, by mouth or intramuscularly Stat. and 10-20 mg, every 4 hr, and as needed; chlordiaepoxide 100 mg, i.m. or p.o. and 50 mg, every 4 hr, and as needed.

Under ideal conditions, medications should be sufficient to allow the patient to alternate between sleep and drowsy wakefulness for the period of acute toxicity. In most instances, oral administration is satisfactory and intramuscular medication is generally reserved for uncooperative or violent patients.

2. STP

The acute adverse reaction to STP may last from 4-12 days. Chlorpromazine appears to be contraindicated at this time for use with STP as the combination may result in a severe state of shock. I recommend diazepam 50 mg, i.m. or p.o. Stat., and 10-20 mg, every 4 hr and as needed.

As the reaction to STP is quite prolonged, a more integrative form of psychotherapy can be useful. The patient should be referred to a therapist and setting experienced in handling this type of drug reaction to ward off more prolonged and even chronic psychotic states which occasionally follow the use of this drug.

3. STRAMONIUM

Stramonium toxicity is similar to that of other hallucinogenic reactions. High doses of this medication, however, may produce multifocal seizures, coma, and even death. The recommended medication is again diazepam along with an anticonvulsant. If the drug has been swallowed, gastric lavage may be useful for up to 12 hr after ingestion. The physician may be required to treat supervening state of coma or status epilepticus, which are handled in the usual manner.

V. Prognosis and Conclusion

In most instances, adverse reactions to hallucinogenic drugs resolve uneventfully when managed as indicated. At this time, medication used in treatment should be withdrawn and the medical and psychological condition of the patient reassessed.

On occasion, resolution of the acute reaction will reveal the presence of a chronic psychotic state or severe neurosis requiring ongoing therapy. In any case, this is the optimal time to explore the patient's drug abuse and other problems and recommend or institute a suitable program of treatment when indicated.

BIBLIOGRAPHY

- Baker, A.A., *Lancet*, April 4, 1970.
Barter, J.T., and Reite, R. *Amer J of Psy*, 126:4, October, 1969.
Chambers, C.D., and Brill, L. *Indus Med*, Vol. 40, No. 1, April 1971.
DiGiacomo, J.N. *JAMA*, Vol. 204, No. 3, April 15, 1968.
Freedman, D.X. *Postgrad Med*, January and February 1970.
Metzner, R. *Behav Neuropsy*, Vol. 1, No. 7, October 1969.
Shoichet, R., and Solursh, L. *Appl Therap*, Vol. 11, No. 5, May 1969.
Snyder, S.A. *et al. Amer J Psy*, 125:3, September 1968.
Solursh, L.P., and Clement, W.R. *JAMA*, Vol. 205, No. 9, August 26, 1968.
Solursh, L.P., and Clement, W.R. *Can Med Assoc J* 98:407-410, February 24, 1968.

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