

INGESTION OF CLUB DRUGS

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Users of club drugs may give them to pets, not realizing the consequences.



With news of club drug use among college and high school students, it is not surprising that pets are being exposed to these drugs by accident and by human intent to “get the dog high.” Unfortunately, when the pet is brought to the veterinary office, the content of the substance involved is not always known, and it can be very difficult to take an accurate history. Knowing what to ask the owner and what signs to look for can help in identifying the drug involved and choosing the correct treatment.

Club drugs are often used to enhance the effects of alcohol and thus the user’s mood. In some unfortunate circumstances, these drugs are used to intentionally overdose a person and make that person unaware of his or her surroundings. Sometimes, animals either are intentionally given a club drug or ingest it out of curiosity. When an animal is brought to a veterinary office or the ASPCA Animal Poison Control Center is consulted for ingestion of a club drug, details on what the drug is or how much of it was ingested may be vague. After all, there is no prescribing information for these drugs, and owners may not want to admit to buying them. Also, illegal drugs are commonly mixed with unknown chemicals. The veterinary team must assess the patient’s

signs to determine what the drug may have been and what the course of treatment should be. However, accurate reports on animal exposures to club drugs are rare. Therefore, information on the effects of these drugs in animals is limited, and treatment usually involves managing clinical signs. In the past 5 years, the ASPCA Animal Poison

Control Center has received numerous calls involving the ingestion of ecstasy; however, a total of 10 calls were made regarding γ -hydroxybutyrate (GHB) and Rohypnol. Familiarizing the veterinary staff with the characteristics of various club drugs and the clinical signs that they may cause in animals can help in managing these potentially life-threatening cases.

ECSTASY

Ecstasy is one of the most publicized club drugs. Its common nicknames include X, clarity, and Adam. Its chemical name is 3,4-methylenedioxymethamphetamine, and as an amphetamine, it is classified as a schedule 1 controlled substance. Ecstasy is typically available as a tablet and comes in a variety of colors with an image etched

Glossary

- Dysphoria** — An emotional state characterized by anxiety and restlessness
- Neurotransmitter** — A chemical that transmits information from one brain cell to another
- Paradoxical effect** — A sign that is not normally expected in a given circumstance
- Serotonin syndrome** — Condition that occurs when there is either excessive release or inhibited uptake of serotonin

into or printed on it. Tablets are generally available in 50- to 150-mg doses, but strengths may vary because of adulteration with other amphetamines, hallucinogens, or stimulants.¹

Humans use ecstasy for its hallucinogenic effects and for its stimulant properties to suppress drowsiness and hunger; these same effects may occur in companion animals. At low doses, ecstasy causes serotonin syndrome and increases the release of dopamine and norepinephrine while inhibiting metabolism.¹ Primary clinical signs include hyperactivity, tachycardia, hypertension, hyperthermia, and seizures. Any exposure to the drug can cause clinical signs and should be considered potentially life threatening, although early management can help to minimize the severity of signs.² Long-term effects may be a concern; studies in rats and nonhuman primates have shown that even one dose of ecstasy can cause neurotoxicity resulting in long-term learning impairment, although this is unlikely in acute exposures in companion animals.

If the patient is asymptomatic, inducing emesis may decrease the risk of signs developing; this should be done with care, however, because the onset of signs may be rapid. Gastric lavage or

activated charcoal can also be effective in early decontamination. If signs are present, treatment should focus on stabilizing the patient. Thermoregulation is essential because body temperature may increase to more than 105°F (40.6°C). Blood pressure and electrolytes should be monitored and managed as necessary. Electrocardiograms should be obtained and assessed. Fluid therapy should be initiated to help control temperature, balance electrolytes, and prevent dehydration caused by hyperthermia. Acepromazine, chlorpromazine, or barbiturates can be used to control central nervous system (CNS) excitement, while propranolol may be used to control cardiac arrhythmias. Cyproheptadine may be helpful in managing serotonin syndrome. Diazepam should be avoided because it may exacerbate dysphoric effects.²

γ-HYDROXYBUTYRATE

Although its nicknames “liquid ecstasy” and “liquid X” may seem to suggest that GHB is the liquid form of ecstasy, it is a different chemical with completely different effects. GHB is classified as a schedule 1 controlled substance. It is typically available as a liquid in various concentrations but

may also come as a white powder. Like ecstasy, it is often adulterated with a number of other toxic substances.³

GHB is a natural derivative of the neurotransmitter γ-aminobutyric acid and affects sleep cycles, body temperature, and memory. It was originally researched for use as an anesthetic, but resulting seizures ended studies.³ Today, users desire the CNS depressant effects of the drug; however, overdoses in both humans and companion animals result in bradycardia, hypotension, hypothermia, vomiting, seizures, and possibly death.¹ Because the strength and composition of illicit drugs vary, any animal exposure to GHB should be taken seriously. With early intervention and close supervision, however, patients usually fully recover after exposure to GHB.²

Emesis and gastric lavage are generally contraindicated for GHB exposures because the patient may lose consciousness soon after exposure. Diazepam may be used to control seizures; propofol or phenobarbital may be used if diazepam is ineffective. Naloxone can be used in patients with bradypnea. Fluid therapy may be necessary to control hypotension, but care should be taken to avoid hypothermia.^{2,3}

FLUNITRAZEPAM

Because the effects of flunitrazepam are similar to those of GHB, uneducated users of the drugs can confuse them; each drug may be referred to ambiguously as “the date rape drug.” Flunitrazepam is more commonly known as *roofies*, a nickname that is probably derived from its brand name outside the United States, Rohypnol. Roche Laboratories currently manufactures 1- and 2-mg tablets (green, white, or purple²) in Latin America and Europe for use as a sedative and preanesthetic. When used illicitly, however, this typically oblong-shaped tablet may be crushed so that it can be snorted or dissolved in a beverage.⁴ Like diazepam, flunitrazepam is a schedule 4 benzodiazepine, but it is 10 times more potent. (Some sources suggest that flunitrazepam could be moved to a schedule 3 classification because of its predatory use in date rape.^{1,5})

Slang Terms and Drug Classifications for Illicit Drugs⁵

Chemical Name	Classification	Street Names
Club Drugs		
3,4-Methylenedioxymethamphetamine	Schedule 1	MDMA, Adam, ecstasy, XTC, X
Flunitrazepam	Schedule 4	Rohypnol, roofies, R-2, date rape drug
Glc-Hydroxybutyric acid	Schedule 1	GHB, liquid ecstasy/X, scoop, Georgia Home Boy, Grievous Bodily Harm, date rape drug
Other Illicit Substances		
Ketamine	Schedule 3	Special K, cat Valium
Lysergic acid diethylamide	Schedule 1	LSD, acid
Marijuana	Schedule 1	Pot, weed, grass, Mary Jane, Bud, dope
Methamphetamine	Schedule 2	Crystal meth, speed

Controlled Substance Classifications⁵

Schedule 1 — High potential for abuse; no accepted medical use

Schedule 2 — Potential for severe physical dependence; must be kept in locked cabinet and strictly tracked

Schedule 3 — Potential for moderate-low physical dependence; may be stored with other prescription drugs

Schedule 4 — Low potential for abuse; may be stored with other prescription drugs

Schedule 5 — Lower potential for abuse; may be stored with other prescription drugs

Illicit users desire flunitrazepam's effects as a CNS depressant, including amnesia and drowsiness.⁵ Signs of exposure in animals are similar to those of diazepam overdose, including lethargy, hypothermia, hypotension, and tachycardia leading to apnea with high doses.^{1,2} Paradoxical effects (e.g., hyperactivity, restlessness) may occur after large doses of flunitrazepam, which can lead to an incorrect diagnosis in cases with a sketchy history.^{2,6} Possible exposures to flunitrazepam should be considered life threatening because of the high potency of the drug and because, as with all illicit drugs, unknown substances could be involved.

Emesis is recommended within 5 to 15 minutes after ingestion if the patient is asymptomatic; activated charcoal may also prevent absorption. Gastric lavage can be used for decontamination with proper stomach tubing if the patient loses consciousness. Supportive treatment must include apnea prevention and thermoregulation. In cases involving severe CNS or respiratory depression, flumazenil may be given as an antidote. Fluids should be given to patients with hypotension and tachycardia.^{1,2} With early and proper management of signs, patients can fully recover from flunitrazepam exposure.

CONCLUSION

When an animal ingests an illicit substance, the situation must be dealt with tactfully. Pet owners do not always tell the entire story because they fear being reported to the authorities. It is important to reassure the client that an accurate history is necessary for the clinic to best care for the animal. To estimate the severity of signs and plan a proper treatment protocol, the client should be asked precisely what substances were ingested, how much was ingested, and how long ago the exposure took place. If the amount is uncertain, it is safer to assume that the pet ingested the entire amount of drug that was available. In these life-threatening situations, technicians can help by obtaining a history that is as accurate as possible and monitoring patients closely. They should also educate themselves about the local laws and the effects of common illicit drugs.

ACKNOWLEDGMENTS

The author thanks Mindy Bough, CVT; Tina Wismer, DVM, DABVT, DABT; and Sharon Gwaltney-Brant, DVM, PhD, DABVT, DABT, who are affiliated with the ASPCA Animal Poison Control Center in Urbana, Illinois.

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