

## References

1. Doll, R., and Hill, A.B.: Mortality in Relation to Smoking: Ten Years Observations of British Doctors (Concluded), *Brit Med J* 1:1460-1467 (June 6) 1964.
2. Doyle, J.T., et al: The Relationship of Cigarette Smoking to Coronary Heart Disease: The Second Report of the Combined Experience of the Albany, NY, and Framingham, Mass, Studies, *JAMA* 190:886-890 (Dec 7) 1964.
3. Hammond, E.C., and Horn, D.: Smoking and Death Rates--Report on 44 Months of Follow-Up of 187,783 Men: I. Total Mortality, *JAMA* 166:1159-1172 (March 8); II. Death Rates by Cause, 1294-1308 (March 15) 1958.
4. Seltzer, C.C.: An Evaluation of the Effect of Smoking on Coronary Heart Disease: I. Epidemiological Evidence, *JAMA* 203:193-200 (Jan 15) 1968.
5. Spain, D.M., and Nathan, D.J.: Smoking Habits and Coronary Arteriosclerotic Heart Disease, *JAMA* 177:683-688 (Sept 9) 1961.
6. Kannel, W.B.; Dawber, T.R.; and McNamara, P.M.: Detection of the Coronary-Prone Adult: The Framingham Study, *J Iowa Med Soc* 51:26-34 (Jan) 1966.
7. Strong, J.P., et al: Relationship Between Cigarette Smoking Habits and Coronary Atherosclerosis on Autopsied Males, abstracted, *Circulation* 31:33-34 (Oct) 1966.
8. Spain, D.M., and Bradess, A.B.: Relation of Sex, Age and Physical Activity to Sudden Death from Coronary Arterial Occlusion, in *Work and Heart*, New York: P. B. Hoeber, Inc., 1959, pp 283-287.
9. Weinberg, S.B., and Helpert, M: Circumstances Related to Sudden Unexpected Death in Coronary Heart Disease: in *Work and Heart*, New York (P. B. Hoeber, Inc., 1959, pp 288-292.
10. Kershbaum, A., et al: Regular, Filter-Tip, and Modified Cigarettes: Nicotine Excretion, Free Fatty Acid Mobilization, and Catecholamine Excretion, *JAMA* 201:545-546 (Aug 14) 1967.
11. Perrin, M.J.; Krut, L.H.; and Bronte-Stewart, B.: Smoking and Food Preferences, *Brit Med J* 1:387-388 (Feb 11) 1961.

## Catnip and the Alteration of Consciousness

Basil Jackson, MD, DPM, and Alan Reed, MD

It has been found that *Nepeta cataria* (catnip) is now being used for its psychedelic effects. No previous mention of the psychopharmacological effects of this drug have been found in the literature. Patients who had been using *cataria* regularly, experienced effects very similar to those produced by marihuana.

THROUGHOUT MOST of recorded history, men have sought to develop new and different states of consciousness and have used a variety of methods to achieve this end. At times and in various cultures, physical duress and self-punishment have been utilized while in others, the emphasis has been on concentration and meditation. A variety of drugs have also been used by individuals seeking alteration in their state of consciousness.

Among the oldest "consciousness modifying" drugs are alcohol, opiates, and marihuana. In 2736 BC the Chinese emperor Shen Neng gave a very vivid and accurate description of the psychological

From the Department of Psychiatry, Marquette School of Medicine, and Veterans Administration Center, Wood, Wis.

Reprint requests to Veterans Administration Center, Wood, Wis 53193 (Dr. Jackson).



1. *Cannabis sativa*.

effects of the use of marihuana or *Cannabis sativa*. Peyote, psilocybin, ololiuqui (ololinqui), and nutmeg have also been used to achieve alteration in consciousness. Within recent years, a large number of drugs with similar effects have been synthesized, the best-known of these being lysergic acid diethylamide (LSD). These drugs have been enjoying increasing popularity among adolescents and young adults in this country during the past decade. More recently, however, some of the more potent of these drugs appear to be becoming less popular—at least among our sample of patients—a finding which may be due to newly reported evidence of possible harmful, long-term effects.<sup>2</sup> Marihuana, on the other hand, appears to be becoming more popular, despite severe federal regulations restricting its use. In addition, the legal consequences of marihuana use have resulted in considerable nonscientific research for a legal substitute which might have the same effects. In 1967, baked banana peels were thought to have such an effect but they proved to be an unsatisfactory substitute. In early 1967, voluntary intoxication by ingestion of Asthmador (a mixture of stramonium and belladonna extract) was reported, but severe side effects would seem to rule out prolonged use.<sup>3,4</sup>

Recently the authors have become aware of a substance that is currently being used, namely catnip (Fig 1 and 2). Catnip, or *Nepeta cataria*, is a plant of the mint family. It has been described in



2. *Nepeta cataria*.

the US Dispensary as a treatment for amenorrhea, chlorosis, and flatulent colic in infants, but now it is not used medicinally. The active constituents are tannin and a volatile oil which contains  $\alpha$ - and  $\beta$ -citral, limonene, dipentene, geraniol, citronellol, nerol, a levorotatory, sesquiterpene, acetic acid, butyric acid, and valeric acid.<sup>5</sup>

Cataria is available in pet stores in its natural leaf form or as a liquid extract in an aerosol canister and is purchased by cat owners for consumption by their pets. It reportedly makes one appear happy, contented, and intoxicated, a description that could well be applied to a person under the influence of marihuana.

We have noted two principal ways in which catnip is being used for its effects on consciousness. One is very similar to marihuana use, ie, smoking the plant leaves either in cigarettes or in some type of pipe. Considerably more cataria than marihuana must be smoked for a comparable effect, due to cataria's lower potency and the rapid rate at which it burns. The second method is spraying the extract on tobacco which is then smoked in any conventional manner. A slight modification of this method is collecting the liquid spray in a hypodermic syringe and injecting it into a regular tobacco cigarette. The effects of smoking the tobacco treated with the cataria extract appear to be intense and to have a more rapid onset than smoking the leaf form alone.

### Report of Cases

CASE 1.—A 17-year-old white, female high school student has been undergoing psychotherapy for two years for relatively mild behavioral disorders. The patient has smoked marihuana for approximately one year, usually twice a month. She has used cataria for three months, approximately once a week. She describes the effects of catnip as being similar to marihuana, ie, relieving depression, elevating mood, and producing euphoria. She also

states that she has visual hallucinations and a fascination with peripheral visual stimuli, while under the influence of this drug. The subject can voluntarily reactivate this experience for up to three days after having smoked cataria and often does so to escape the boredom she experiences in school.

CASE 2.—A white, 23-year-old, single woman has smoked marihuana for five years on an average of once a week. In describing her first experience with cataria, the patient stated that it was similar to marihuana, except that "things were vague" while under the influence of the drug. She did not notice an increased appetite, which she normally notices when she smokes marihuana, but she did experience a similar fascination with music. She also became giddy and laughed easily. The effects were markedly diminished within an hour after smoking the cataria and she felt no aftereffects.

CASE 3.—A 22-year-old white man had tried marihuana once but had experienced no noticeable effect from it; he did have a mild reaction to cataria. He first noticed a feeling of relaxation and increased enjoyment of his surroundings. Shortly thereafter, he became fascinated with stereophonic music. In commenting on the music, the patient wondered why he could only hear "... the beautiful sounds, completely without distortion." He also had a feeling of "... being outside his body, in a pleasant way." The effects of the drug lasted a few hours then faded without aftereffect.

CASE 4.—A white, 20-year-old, single, male college student had smoked marihuana twice weekly for 1½ years and has taken LSD three times. The patient has smoked cataria four times with similar results on each occasion. He states that catnip has an effect comparable to marihuana but slightly less enjoyable. The patient noticed increased flow of thoughts and associations with increased appreciation of music and a general mood-lifting during his experiences with cataria. He stated that there was a greater sense of unreality than with marihuana, and that he had difficulty recalling much of the time that had passed during these four periods of intoxication. He was the only patient who reported physical side effects. He stated that during the drug experience, he noticed "... a buzzing sort of headache on the left," and stated that after two of the drug experiences, he had a feeling of malaise with a non-specific headache on the following day.

### Comment

To date, we are not aware of any psychopharmacologic mention of cataria. A review of the literature did not reveal any previous reports of the use of cataria for its consciousness-altering effects. More clinical evidence needs to be gathered to be certain that catnip does have a consciousness-altering effect in a larger sample of patients, and watch will have to be kept for signs of any possible harmful side effects. In the cases reported, the recurrence of the state of altered consciousness in one and the headache in the other may indicate that the effect of catnip may be more similar to that of LSD than to marihuana and thus may be potentially more serious.

### References

1. Cohen, S.: *The Beyond Within*, New York: Atheneum, 1965, pp 11-21.
2. Egozcue, J.; Irwin, S.; and Maruffo, C.A.: Chromosomal Damage in LSD Users, *JAMA* 204:215-218 (April 15) 1968.
3. Goldsmith, S.; Frank, I.; and Ungerleider, J.T.: Poisoning From Ingestion of a Stramonium-Belladonna Mixture: Flower Power Gone Sour, *JAMA* 204:169-170 (April 8) 1968.
4. DiGiacomo, J.: Toxic Effect of Stramonium Stimulating LSD Trip, *JAMA* 204:265-266 (April 15) 1968.
5. Osol, A., et al: *The Dispensary of the USA*, ed 25, Philadelphia: J. B. Lippincott Co., 1960, pp 1618-1619.