CENTRAL NERVOUS SYSTEM STIMULANTS

GENERAL

This general group does not include the tricyclic antidepressants, the monoamine oxidase inhibitors or cocaine. The amphetamines are the most important drugs in this category.

Dependence of the amphetamine type 87 is characterized by the following: strong psychic dependence, a high degree of tolerance, and no readily evident physical dependence. However, a consistent syndrome manifested by a long period of marked rapid eye movement (REM) sleep, succeeded by ravenous appetite and then apathy and depression, has been described, 276 so possibly physical dependence as well as psychic dependence does occur.

As is the case with all forms of drug dependence, the spectrum of misuse and abuse of amphetamines varies markedly. Students may take one or two doses of amphetamines during one night in order to stay awake to study for examinations; other persons, usually young men, take huge doses of amphetamines intravenously in binges lasting days to weeks. Intravenous abuse is complicated by a high incidence of serious infections, marked inanition, sudden death (cardiac arrhythmias?) and suicide.

The most common problem of amphetamine dependence, regardless of the route of administration, is the development of a toxic psychosis of paranoid type which is difficult to distinguish from paranoid schizophrenia. An epidemic of this kind of reaction from methamphetamine occurred in Japan. 284 The amphetamine psychosis noted by the Japanese was confirmed in England by Connell 234 and by other authors in various countries. 244, 254, 259, 263, 272 All of the features of severe dependence of the amphetamine type have been reproduced in the monkey.

Abuse of amphetamine began to be noted soon after the introduction of the nasal inhalers containing DL-amphetamine. These were sold "across the counter" without prescription and were soon being smuggled into prisons where the containers were opened and the paper strips soaked in coffee or other drinks and swallowed. Soon after the introduction of D-amphetamine as an anorexigenic and antidepressant and after use of amphetamines as ant-fatigue drugs, abuse of amphetamines taken orally spread rapidly with the illicit market being supplied by diversion from legal sources. By 1965 the problem had reached huge proportions 283 in the USA, where intravenous abuse, which seems to have begun in California about 1960, is now a very serious problem on both the east and west coasts. The illicit market is now supplied partially by illegal synthesis of amphetamine and partly by diversions from legal sources.

In addition to Japan and the USA, Sweden has been heavily involved. The Swedes noticed the problem early and placed amphetamines under their narcotic law controls in 1938. Despite this, amphetamine abuse continued to spread in Sweden 244 until at present it is estimated that there are several thousand intravenous amphetamine abusers in that country. In Sweden, the favoured drug is phenmetrazine but all types of central stimulants are abused there, including amfepramone (S 166). The illicit market in Sweden has been supplied chiefly by smuggling from other countries.

Social damage from amphetamine dependence includes deterioration of work performance, impairment of family relationships, parasitic existence, poor judgement, and even assaultive behaviour toward other persons.

The symptoms observed in dependents abusing amphetamines intravenously is quite similar clinically to that observed in persons abusing cocaine intravenously.