

# A CASE OF AMPHETAMINE PSYCHOSIS

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The following case report of Amphetamine psychosis is the first to be published from Malta.

## Case Report

A married man, aged 45 years, unemployed clerical worker, was admitted to the mental hospital in September 1966. For the previous two years he had been taking dexedrine and dexamphetamine sulphate. He had also induced his wife to take these preparations on a few occasions. During this period he complained of hearing unfamiliar noises at home, seeing shadows on walls and curtains moving unaccountably and experiencing visions of monkeys and of devils. He spent sleepless nights and on one occasion kept all the electric lights on in the house as he suspected that people might enter into his home. Because of these happenings he had the house blessed by a priest "to remove any evil influences therefrom", but as the visions persisted he changed his residence and went to live in another town.

New features made their appearance. There were "unusual noises" proceeding from the top flats; wires protruded out of the ceiling and ventilators into his bedroom and there was an odour of "gas" which the patient ascribed to the "release of magnesium from the friction of electric wires". He believed that his neighbours were trying to tap his electrical supply and place a hidden microphone in his room to overhear his conversation with his wife.

One morning he went to the police to report these alleged interferences. It was this event that brought the patient to hospital as the police, after examining his flat and interviewing his wife, called in two medical practitioners who certified him.

## Amphetamine Consumption

"For a number of years" previous to taking amphetamine the patient had been in the habit of drinking as much as eight bottles of beer, two bottles of wine and three tots of whisky a day. However, he claims that he never got drunk in spite of these amounts. He succeeded in reducing his alcoholic intake to one bottle of wine a day about two years ago; then he stopped drinking and started on amphetamine.

He gave different reasons on different occasions for taking the drug initially, i.e. "out of curiosity"; because he felt "without energy"; "to relieve the Monday morning feeling of tiredness and not wanting to get out of bed"; to stimulate sexual drives and because he had read that "purple hearts" were being taken by school children to "freshen their minds" before examinations. At one time he said that he had been first introduced to them by an assistant chemist.

He said that he did not have the drug continuously. The longest stretch for which he had taken it had been five to six weeks with free intervals of weeks and even months. He described its effects as follows: "extra energy"; sleeplessness (sometimes for 4 or 8 hours in succession); a "soggy feeling when one sleeps for only twenty hours a week"; "feeling of happiness and like being drunk"; "you think that you see things but you know that the things you are seeing are not there".

Over a period of ten hours immediately preceding his admission to hospital he had had fifteen tablets of dexedrin. The maximum number of tablets he had ever had was twenty in twenty-four hours.

On admission consciousness was clear; orientation and memory showed no defect. He was alert and talkative but was not emotionally disturbed. He denied "voices", "visions" and paranoid ideas. He was in hospital for forty days. During this time he had no medication beyond vitamins as he had not been eating well at home and had lost weight.

There were no withdrawal symptoms. He remained free of hallucinations. Four days after his admission he had gained insight into the delusions and perceptual disorders which he had experienced at home. He realised that these phenomena were due to the drug; in fact he had read in a newspaper about the possibility of the development of untoward behaviour and hallucinations in persons taking amphetamine preparations illicitly.

### Physical Findings

No clinical abnormalities were found. Blood pressure was 140/90; pulse seventy-two, regular and strong. Routine urinalysis, blood count and picture, liver function tests, serum agglutination tests and Wassermann and Kahn reactions were all normal.

The traumatic ulcers on lips and tongue described in amphetamine addicts and produced by chewing, teeth grinding and rubbing of the tongue along the inside of the lower lip (Ashcroft *et al.* 1965) were not present.

It was not possible to obtain a clear picture of his pre-psychotic personality as the only person (his wife) who had known him for a sufficiently long time was uninformative on this score. The only description we have is from the patient who described himself as being a "home-bird", preferring to lead a "quiet life" but "always cheerful with a strong sense of humour", liking company but not too many friends. On the whole he struck the writer as being an extrovert type.

On discharge from hospital he promised to report as an out-patient but he failed to keep his appointment. A month later he wrote to apologise saying that he had been unable to attend at the clinic as he had to report for an interview regard-

ing employment on the same day and time. He added that he had not been "seeing things" but he did not mention whether he was again having the drug.

### Discussion

Amphetamine sulphate was originally prepared and investigated in 1927 by G. A. Alles (1927). Attention was first called to the causation of mental illness by amphetamine by Young and Scoville (1938). P. H. Connell (1958) reviewed eighteen cases appearing in the literature and described forty-two of his own.

Judging from the sparseness of the literature, the incidence of amphetamine psychosis appears to be small but it is probable that cases may not be diagnosed clinically, or may be mistaken for a schizophrenic illness which amphetamine psychosis mimics very closely or may never come under medical observation because the mental disturbance may not be severe enough to cause disturbed behaviour. This is illustrated by the present case. In fact although mental manifestations had been present for a long time he only came under medical attention when he went to the police to report his alleged persecutors. Had he not taken this step he would have remained at home and his case would have been missed.

Although the present case is the first one to be reported from Malta, the author knows of another two cases; these, however, were seen by him under circumstances which did not permit adequate study. One showed a state of severe excitement with persecutory ideas and the other manifested a mild paranoid state with partial insight.

The case here reported fits in with the recognised clinical picture of amphetamine psychosis, i.e. a paranoid state with auditory and visual hallucinations and delusions of persecution in a setting of clear consciousness. This setting of clear consciousness differentiates it from the toxic confusional state which is characterised by disorientation but makes it indistinguishable from paranoid schizophrenia. What clinches the diagnosis and differentiates it from the latter condition

is (a) a history of amphetamine ingestion, (b) the spontaneous disappearance of the psychosis on withdrawing amphetamine in five to six days in the majority of the cases, and (c) the presence in the urine of amphetamine which is excreted for as long as seven days after withdrawal (Connell P.H. 1958). Our patient satisfies criteria (a) and (b); unfortunately no opportunity for carrying out the biochemical assay of the urine was available in Malta.

### Comment

The following points are worthy of comment:

(a) The lowest dose of amphetamine known to cause a psychosis is 30mgm to 55mgm and the highest 1500mgm in a day (Connell P. H. 1958). The maximum dosage ever taken by the patient was 100mgm (20 tablets) in twenty-four hours but on the day of admission he had had 75mgm within a period of ten hours preceding his referral to hospital. These may not be the true amounts ingested as the only evidence is the patient's statement and it is well known that addicts often falsify the dosage.

(b) Many of those who take amphetamine have certain personality characteristics. Our patient shows traits of an outgoing personality which investigators have found to be more in evidence than introversion in those who develop an amphetamine psychosis (Connell P. H. 1958).

(c) It is known that addicts to alcohol and other drugs are more liable to become dependent on amphetamine. The patient under study had been a heavy drinker "for a number of years" before he switched over to amphetamine two years ago.

(d) A unique feature in this case is the initiation of his wife into amphetamine consumption by the patient. None of the cases in the literature known to the writer show this feature. He had persuaded her to take dexedrine with the aim of keeping her awake at night and "making her see the things he was seeing". She had the tablets on five occasion at an interval of about

a month and at the rate of ten to twelve tablets during the night. When interviewed about her experiences she said that she was not sure whether she actually saw the shadows, the curtains moving, etc, which her husband was seeing. She thought that she might have seen these phenomena because he had impressed her with them and because he had suggested them to her. She never took the drug voluntarily but always at the insistence of her husband. She does not feel the urge to take it; in fact she has no intention of taking it again even if her husband insists on her doing so.

### Prescribing amphetamines

The Proprietary Drug List includes no less than twenty-two preparations containing amphetamine (Reed F. S. 1967). Of these the most commonly available in Malta are dexamphetamine sulphate (dexedrine), amphetamine sulphate (benzedrine) and drinamyl (dexedrine 5mgm and amylo-barbitone 32mgm). When prescribed by doctors these drugs are usually used in the treatment of depression, obesity and narcolepsy. Their administration in depression is no longer justifiable in view of the more effective and non-habit-forming anti-depressants now available; their use in obesity, too, is not necessary as they have been replaced by safer suppressants of appetite. Narcolepsy is, perhaps, the only condition where amphetamines are indicated but cases of narcolepsy are very rare.

We do not know how prevalent is the consumption of amphetamine for non-medical purposes in Malta. Since 1965 concern has been expressed by the local press regarding the alleged misuse of amphetamine by young people (Local press 1965, 1966) but facts and figures are not available. However it would be unwise to disregard these premonitory signs even if, from the rarity of amphetamine psychosis in Malta, one feels that the danger is as yet a long way off.

In the meantime medical practitioners would do well to remember when prescribing amphetamine that apart from the possibility of psychotic manifestations, habituation and addiction, this drug has other

adverse effects such as antisocial behaviour, errors in judgment and over-estimation of one's performance especially when driving. We must, therefore, consider whether these undesirable reactions do not outweigh the therapeutic effects of the drug.

### Summary

A case of amphetamine psychosis, the first to be reported from Malta, is here described. A unique feature is the initiation of the patient's wife into taking the drug.

Various aspects of amphetamine ingestion — medical and social — are discussed.

### Acknowledgement

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