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AMPHETAMINE DEPENDENCE IN DUBLIN

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THE W.H.O. Expert Committee on Addiction-Producing Drugs has recently (W.H.O., 1964) revised the definitions of drug misuse of earlier committees (W.H.O., 1962; W.H.O., 1957) and recommended substitution of the term "drug dependence" for the formerly used "drug addiction" and "drug habituation". These latter terms and the distinctions between them, suggested by the earlier committees, had proved impractical in application and had led to confusion and misuse. Accordingly the expression "drug dependence" was advocated as of general application to "a state arising from repeated administration of a drug on a periodic or continuous basis" and the type of drug concerned was to be made clear by indicating, for instance, "drug dependence of amphetamine type", "drug dependence of morphine type", and so on.

Amphetamine, like its analogue methedrine, first found clinical usage as a vasoconstrictor (Piness et *al.,* 1930) and was later used for the treatment of narcolepsy (Prinzmetal and BIomberg, 1935). Observation of its effects on mood and appetite led to its introduction and later its commercial marketing on a large scale for depression and obesity during the nineteen-forties and -fifties. The arrival of the anti-depressant drugs in the late nineteen-fifties brought doctors an alternate drug treatment for depression where hitherto there had only been stimulants and euphoriants some of which like phenidate (Ritalin) were related to amphetamine. In the meantime further amphetamine analogues, like phenmetrazine (Preludin) were marketed for the control of obesity. Finally one of the newer anti-depressant drugs of the monoamine oxidase inhibitor group, tranylcypromine (Parnate) arrived, which being clinically akin to amphetamine, created similar problems of dependence (Le Gassicke *et al.,* 1965).

The extent of amphetamine usage in Britain has been recorded by the work of Kiloh and Brandon (1962) and the amazingly widespread "wakeamine" dependence in parts of Japan has been described by Masaki (1952). Recently there has been a good deal of newspaper publicity of the usage by the adolescent all-night cafe sub-cultures of the "mod and rocker" variety of purple hearts, black bombers, French blues and so on. Thus Scott and Wilcox (1965) using a modification of the Methyl Orange addiction method showed that about 18% of new admissions to a remand centre in Britain had recently taken amphetamine. That amphetamine intake could be associated with psychotic phenomena first became evident in a report on three patients who had become psychotic whilst taking the drug for narcolepsy (Young and. Scoville, 1938). From then on further cases appeared in the literature culminating in the publication of a series of forty-two psychotic illnesses associated with amphetamine misuse by Connell (1958). Askevold (1959) and Bell and Trethowan (1961) added further series to the literature. During a cohort survey of hospitalised psychiatric illness in Dublin in 1962 all cases of amphetamine dependence admitted to the local authority psychiatric facility of the city and county of Dublin (population 720,000) during that year have been extracted and this group is the subject of the present report.

The Sample

There were 18 admissions of 16 persons in whom the admission diagnosis was of "drug dependence–amphetamine type." In 13 cases admission was due to simple dependence and its social sequelae and in the remaining 5–one of which has been reported at length in this

journal (Murray, 1964)–was determined by frank psychosis. The sample comprised 9 women and 7 men. Details, social and medical, are set out in the accompanying Table.

With the exception of case No. 2 all the sample lay between 20 and 46 years of age thus giving the series an age distribution similar to that of most other groups studied (Beamish and Kiloh, 1960). It is remarkable that of the 11 ever married persons in the sample, about half had been divorced or separated and this appears to illustrate the chaos and disorder of the drug taker's personal and family life.

The social profile of the sample, with over half in the first two classes of the Register General's five groups, is noteworthy–the more particularly so in relation to the social status and ranking of the entire cohort of 1962 local authority patients as a whole where the bias is distinctly towards the lower social groups (Walsh, 1966). Two of the group were medical practitioners and one was a nurse and thus members of high risk occupations as far as drug taking is concerned.

Four of the 16 persons and 5 of the 18 cases were psychotic on admission. Three of the psychotic cases presented psychotic reactions undistinguishable from paranoid schizophrenia, one case was catatonic on her two admissions and the 5th presented in an acute manic state. The typical amphetamine psychotic episode is said to be that of a paranoid state with auditory

Case	Sex	Age	Marital Status	Social Status	Diagnosis	Other Drugs	No. of Previous hospitalisations	Re-admitted during follow-up
1	F	49	W	2	D	A	1	–
2	F	65	W	5	D	B	4	+
3	M	46	D	2	P	–	70	+
4	F	41	S	2	D	B	–	+
5	M	20	S	2	D	B	–	–
6	M	36	M	1	D	B.A.	3	–
7	M	26	M	4	D	–	–	–
8	M	37	W	5	D	–	–	–
9	M	36	S	2	D	B.A.	30	+
10	F	20	M	5	P	–	–	–
11	M	29	Sep.	4	P	B	3	+
12	M	42	Sep.	5	D	B	5	–
13	F	36	Sep.	1	P	–	7	+
14	F	33	S	5	P	–	–	–
15	F	31	S	2	D	B	3	+
16	F	34	Sep.	1	D	B	1	+

KEY TO TABLE
W = Widowed. D = Divorced. S = Single. Sep = Separated. D = Dependent. P = Psychosis.
A = Alcohol. B = Barbiturates.

hallucinations but delirium (Browne, 1945), catatonia (Mecheaux, 1950) and manic states (O'Flanagan and Taylor, 1956) have been described.

Whereas all of our cases had at one time or another used barbiturates in an amphetamine-barbiturate combination such as "Drinamyl" or "Barbidex", 9 of them consistently abused barbiturates separately to counteract some of the unpleasant amphetamine effects. In addition 3 persons habitually consumed excessive alcohol. The estimated daily amphetamine intake varied from 50 to 800 mgms. and the 4 psychotics were among the 6 patients with the largest intake.

The reasons for taking amphetamine varied a great deal. In one case, that of a severely overweight young woman, obesity had clearly been the determinant. In another amphetamine

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intake began outside this country as part of the ritualised way of life of a group of avant garde aesthetes. In three cases amphetamine ingestion began as part of a general alcohol-drug dependence before emerging specifically as a problem on its own. In two further instances professional contact with drugs in neurotically inadequate individuals paved the way to dependence.

Ten of our cases had been previously admitted to psychiatric hospitals on account of amphetamine addiction. Two of these were drug-alcohol recidivists with over 100 previous admissions between them. Two others, one with seven and the other with five admissions, within a short time of the index admission indicated that their amphetamine dependence had benefited little from hospitalisation. In a follow-up over two years within the Dublin region only it was found that one of the recidivists had killed himself by barbiturate overdose and nine of the others had been re-admitted to a psychiatric facility because of renewed amphetamine dependence.

Discussion

Amphetamine dependence appears to have been established as a major problem in European, American and Asian countries. There had so far been no work to indicate the extent of the problem in the Republic of Ireland caused by this drug and its analogues although it was found that it had played an important part in the presenting symptoms of 2.1% of referrals to a general hospital psychiatric unit in Northern Ireland over a three year period (McConnell, 1963). During 1962 eighteen cases (.9% of all admissions) of amphetamine dependence were admitted to the local authority psychiatric facilities of the Dublin region. It was not possible to say how many cases came to general hospitals, nursing homes or private psychiatric hospitals in the region. Nevertheless from the sample examined and from discussions with individual cases no evidence emerged to suggest that there existed "beat" adolescent amphetamine taking groups in Dublin. The bias of the sample towards the upper social groups might indicate that amphetamine takers in Dublin are over-represented in these social groups and hence might be found in greater numbers in the private psychiatric facilities. On the other hand amphetamine taking of the adolescent delinquent type described by Scott and Wilcox (1965) would almost certainly come to the local authority facility, yet no example of this type of amphetamine taker was seen. Nor was any amphetamine trafficing in Dublin of the type described elsewhere been reported by the patients in the present series.

The W.H.O. Expert Committee laid it down as a characteristic of amphetamine dependence that there was "a general absence of physical dependence . . . ." and "no characteristic abstinence syndrome . . ." (W.H.O., 1964) but this statement has been challenged and it has been maintained by Oswald and Thacore (1963) that both physical dependence and an abstinence syndrome exist. Three of the psychotic reactions in this series cleared within a fortnight of admission but the catatonic case (on one occasion) and one of the paranoid psychotic reactions took five and eight weeks respectively before complete remission. In neither case–both of them under the personal care of the author–was there any possibility of continued amphetamine intake nor was there anything to suggest either historically or in follow-up that these illnesses had been schizophrenic. Connell (1958) has stated that if the psychotic symptoms persist for one week after withdrawal then one is dealing with schizophrenia but Sakurai (1956) in agreement with the present experience has stated that amphetamine-induced symptoms may persist for much longer. A striking feature in three of the non-psychotic cases was a persistence for three to four months after withdrawal of severe anergia, listlessness and reduction in drive. These symptoms were much more extreme than anything that the patients had experienced or their relatives had seen in them before and were much more than just a let-down effect in which the previously inadequate and emotionally unstable character reasserted itself (Wilson, 1965). It was felt that this effect was an abstinence manifestation and proof of a true physical dependence on the drug. Oswald and Thacore's finding (1963) that E.E.G. patterns of amphetamine dependent subjects may take as

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long as eight weeks to return to normal was regarded by them as evidence of dependence on the drug and may explain some of the physical phenomena of apathy and anergia evident on withdrawal in three of the present series.

The poor record of the sample both before and subsequent to the index admission supports the gloomy prognostic view that Bell and Trethowan (1961) ascribed to amphetamine dependence.

At the time that these cases were seen it was a very simple matter to get large amounts of amphetamines over the counter in many pharmacies in this country. The institution of the Medical Preparations (Control of Sale) Regulations in 1963 now limits the dispensing of amphetamines and other similar drugs to prescription only which is not renewable unless specifically stated to be so by the prescribing doctor. It seems likely that these restrictions will help to reduce the abuse of a drug which, in the opinion of the author, has no more part to play in adult psychiatric practice than it has in the control of obesity.

Summary

18 cases of amphetamine dependence seen in Dublin in 1962 were presented. The social and medical background of these patients was examined. Clinical evidence for the existence of physical dependence and an abstinence syndrome in the amphetamine-dependent was adduced.

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