Medical aspects of drug misuse during one year in a rehabilitation unit

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SUMMARY. The medical work in a voluntary drug rehabilitation unit near Glasgow was examined. During one year 174 residents were admitted of whom 103 (59%) developed illnesses which required medical treatment. The need for drug misusers to receive general medical services during and after drug misuse was confirmed. Although withdrawal from barbiturate misuse required the prescription of controlled drugs, opiate and other withdrawals were satisfactorily managed with psychological support and general care; substances which could be abused were not prescribed. Blood testing of 129 residents showed that 114 (88%) had evidence of previous hepatitis B infection, while only two had human immunodeficiency virus (HIV) antibody. The low prevalence of HIV antibody compared with the high prevalence that has been reported in Edinburgh suggests that the opportunity exists at the moment to limit the spread of acquired immune deficiency syndrome among Glasgow drug misusers.

Introduction

DRUG misuse in the United Kingdom is increasing, and general practitioners have sometimes been confused over their role in the care of drug misusers.[1] The publication of the *Guidelines of good clinical practice in the treatment of drug misuse*[2] was designed to help correct this and they have been widely distributed. But they contain little information about relevant physical disorders, and large sections are devoted to the medical management of drug withdrawals. General practitioners previously unaccustomed to dealing with substantial numbers of such patients should be aware that a simpler and more economic approach is available. An expansion in the facilities for treatment and rehabilitation of drug misusers is now taking place,[3] and many of these are attracting government support. The local establishment of one such unit provided an opportunity to assess the medical problems of drug misusers, as they presented to a general practitioner.

Kilmahew House, Cardross, was set up in June 1984 as a residential home for the rehabilitation of drug misusers. It is a large country house, approximately 20 miles from Glasgow city centre and is run by a voluntary non-medical organization, the Drug Problem Resource Group. Most residents come from Glasgow, with a few from elsewhere in Scotland. All admissions and discharges, the rehabilitation policies of the unit and its daily administration are the responsibility of the voluntary staff. Those seeking admission are referred from a variety of sources including hospitals, the courts and social work departments, together with some who present themselves.

No formal policy exists governing admission, but all potential residents are interviewed by staff members to try to establish some evidence of the wish to stop using drugs. All residents are free to leave at any time but subsequent re-admission remains at the discretion of the staff. The author was appointed visiting medical officer, with effect from 1 November 1984, to provide general medical services to the residents, together with advice on health matters to members of staff. This paper is a study of the medical work in the unit during one year.

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Method

During the period from 1 November 1984 to 31 October 1985, all residents at the rehabilitation centre who remained at least seven consecutive days were subjected to detailed questioning concerning their drug misuse and medical history. All were physically examined and blood was obtained from most for determination of hepatitis B and human immunodeficiency virus (HIV) status. Many were admitted while still under the influence of drugs and experienced withdrawal after admission. It was decided to operate a policy when dealing with drug withdrawals of not prescribing drugs capable of being misused.

Results

On 1 November 1984 there were 30 residents at the centre and by 31 October 1985 this had risen to 59. During the year 174 drug misusers remained for at least seven days. There were a total of 225 separate admissions: 132 drug users were admitted once, 34 twice, seven three times and one man four times. There were 166 discharges after stays varying in length from seven to 477 days; 53 (32%) residents stayed for less than five weeks and only 17 stayed for more than six months.

Demographic characteristics

Most of the drug misusers came from social classes 4 and 5 (Registrar General's classification); 137 (79%) were male and 37 (21%) female. Age at first admission ranged from 16 to 37 years with a mean of 21.2 years.

Notifications to the Home Office

Under the Misuse of Drugs Act, 171 persons were notified to the Home Office and 136 acknowledgements have been received; 99 were unknown to the Index of Addicts, 37 had been reported previously, although only 25 had been notified in the preceding 12 months. The ratio of 1:4.4 for notified to unnotified cases is similar to other estimates of under-reporting of drug abusers.[3]

Pattern of drug use

The majority of the drug users (95%) regarded heroin as their drug of choice, but most had also been misusing a wide variety of drugs (Table 1). Some of the drugs had been obtained on prescription by deception but most had been purchased illicitly. Only five patients (3%) had limited their misuse to a single substance; mixtures of central nervous system depressants and stimulants had frequently been taken in combination or in sequence and by a variety of routes. Most of the patients (95%) had taken drugs by injection. Tablets were often crushed and dissolved in water, along with a little lemon juice or vinegar, and injected intravenously, as were the contents of capsules. Needles and syringes were usually shared.

The age at which any substance had first been misused ranged from 11 to 21 years with a mean of 15.2 years. The average duration of drug misuse prior to admission was six years. Eighty-four residents (48%) had started with cannabis, 40 (23%) had commenced by sniffing glue while 20 (11%) began misusing drugs with opiates. It is interesting that all patients except one smoked tobacco.

Table 1. Substances misused by 174 residents at the rehabilitation centre at any time before admission.

Substance	Number of residents misusing
Heroin	166
Cannabis	150
Amphetamine	101
Dipipanone + cyclizine (Diconal)	97
Lysergic acid diethylamide (LSD)	91
Benzodiazepines	84
Dihydrocodeine	81
Cocaine	63
Solvents	49
Barbiturates	38
Buprenorphine	38
Alcohol	25
Dextromoramide	24
Methadone	21
Cyclizine (Marzine)	11
Morphine	9
Pethidine	6
Methaqualone	4
Codeine	3
Chlorpromazine	2
Papaveretum	2
Phencyclidine	2
Opium	1
Phenytoin	1
Glyceryl trinitrate	1
Mushrooms (hallucinogenic)	1

Management of withdrawal

Withdrawals of most drugs were uncomplicated and supervised by the staff and residents. Insomnia was the commonest complaint during this time and most residents regarded a period of natural sleep some few days after admission as signifying the end of their withdrawal phase. Management usually consisted of a high fluid intake, frequent hot baths, large numbers of cigarettes and the constant attendance of a sympathetic companion, usually a fellow resident.

A major convulsive seizure occurred in a barbiturate misuser soon after admission, and prompted an exception to this policy. Subsequent patients admitted who claimed to have recently been taking barbiturates were given six days of phenobarbitone syrup, in reducing doses, commencing with 60 mg tds.

Episodes of illness

During the year 103 (59%) residents had a total of 129 episodes of illness, of which only 22 could reasonably be directly attributed to drug misuse (Table 2).

Thirty-six residents (21%) had previously been admitted to hospital with drug overdosage. Nine (5%) had a history of candida endophthalmitis, as recently described in epidemic form in Glasgow heroin addicts[4] and several had permanent partial loss of vision as a consequence. Thirty-four residents (20%) had had injection abscesses and two (1%) had a history of endocarditis. While only 70 (40%) residents claimed a history of hepatitis, blood examination of 129 showed 114 (88% of this group) to have markers of previous hepatitis B infection. There were six long-term carriers who were hepatitis B surface antigen positive. Only two cases positive for HIV antibody were discovered. Both had abused drugs while living in Edinburgh and were asymptomatic at time of testing, though one has since developed thrombocytopenic purpura, thought to be caused by the virus.

Of the 129 episodes of illness 107 were not clearly linked to drug misuse. The frequency with which the systems of the body were involved in these cases (Table 3) resembled that usually encountered in general practice.[5] Dental problems were common and no fewer than 119 residents (68%) required dental treatment, often for very advanced tooth decay and gum sepsis. Good links were established with the Glasgow Dental Hospital, and any resident whose viral status presented problems could be dealt with there.

Six residents were admitted to hospital. Only one, a case of staphylococcal endocarditis which eventually proceeded to tricuspid valve replacement, was directly linked with drug misuse.

Many residents had signs of recent weight loss and the mean weight change in 119 during the first month in Kilmahew was +4.8 kg, with a range of −3 kg to +15 kg. Most received oral multivitamin supplements during this time.

Immunization of staff

Five members of staff whose work included searching the clothes of new admissions, and thus were exposed to the possibility of needlestick injury, were immunized against hepatitis B.

Daily cost of drugs

The residents estimated the daily cost of their drugs in the month prior to admission. The sums quoted ranged from nil, in the case of a petrol sniffer, to £200 for a heroin misuser. The mean daily cost was £44.83 (standard deviation £33.52).

Convictions for offences

It is interesting that only 24 of the patients (14%) had convictions for offences under the Misuse of Drugs Act, while 133 (76%) had a record of other convictions, often shoplifting or theft, two (1%) had a record of both and only 15 (9%) had no criminal record. While the relationship between illicit drug use and crime may be complicated,[6] many of this group of drug misusers had been in court as a consequence of drug possession or criminal activity to raise money in order to purchase drugs.

Table 2. Illnesses of drug abusers during residence which could be directly attributable to drug misuse.

Illness	Number of cases
Menorrhagia	5
Injection abscess	4
Hepatitis B	4
Hepatitis (non-A non-B?)	2
Active chronic hepatitis	2
Major seizure	1
Endocarditis	1
Leg ulcers	1
Acute psychosis	1
Phlebitis	1

Table 3. Illnesses of drug abusers during residence which could not be directly attributed to drug misuse: distribution by body system affected.

		Consultation rate (%)	
System	Number of cases	Residents ($n = 174$)	Whole population[a]
Respiratory	43	*24.7*	*24.0*
Skin	28	*16.1*	*14.0*
Musculoskeletal	10	*5.7*	*6.0*
Gastrointestinal	8	*4.6*	*8.0*
Genitourinary	8	*4.6*	*4.0*
Miscellaneous	10	*5.7*	—

[a]Approximate figures for comparison from Fry.[5]

Discussion

Kilmahew House is the largest residential rehabilitation unit for drug misusers in Scotland.[7] It is unusual among such establishments in admitting persons who may still be under the influence of drugs. As the social backgrounds, age groupings and patterns of drug misuse seen in the study population are typical of a substantial proportion of problem drug users in Glasgow, as identified in a recent survey,[8] it may be valid to extrapolate some of the findings to a much larger population of drug misusers. The government's guidelines for treating drug misusers[2] were found to be of limited value in helping to identify likely medical problems and their management, but other sources of assistance are available[9] and it is unfortunate that more useful information of this type was not included in the guidelines themselves.

The relatively short length of stay of most residents is probably typical of many rehabilitation houses (B. Hadden, personal communication), but is disappointing as there is some evidence that those who remain in therapeutic communities for longer than six months may have a significant improvement in any underlying personality disorder.[10] If controlled drugs are to be prescribed in such places, a high turnover of cases will present logistical difficulties. Additional problems will be the secure storage and safe disposal of such drugs, a possible lack of qualified nursing supervision, and the common practice of multiple drug misuse. However, the generally mild nature of withdrawals seen in this study meant that steps did not have to be taken to overcome these difficulties. Withdrawals from all substances other than barbiturates were trouble-free, without the use of controlled drugs. In all cases the withdrawal phase presented few problems and several residents expressed surprise in retrospect at the ease of withdrawals.

The decision not to prescribe methadone during drug withdrawals may be judged to be needlessly harsh. However, given that the symptoms were never very severe, together with the complete lack of evidence that the prescribing of methadone will favourably influence the ultimate aim of achieving a drug-free life, this cannot be accepted. The beneficial effects of the care and attention given to new residents, as outlined above, should not, however, be underestimated. As long as this level of care is available, it is likely that the complex withdrawal regimens described in the guidelines are unnecessary.

The finding that opiate misusers frequently inject themselves with other drugs including benzodiazepines and buprenorphine is not new,[11] but the prevalence of misuse of these two drugs was surprisingly high. Many drug misusers in the study commenced their misuse while still of school age, and a few volunteered that they had obtained drugs from their parents. In order to further reduce the risk of drug misuse, there is a need to extend caution in prescribing to all members of certain households.

The medical disorders catalogued above confirm other evidence[12] that drug misuse, and in particular the near universal practice of taking drugs by injection, accounts for a large demand on National Health Service resources, together with a great deal of personal suffering.

Hepatitis B was endemic with an infection rate at 88% just exceeding that recently reported by Robertson and colleagues in a group of Edinburgh drug misusers.[13] The low prevalence of HIV infection, however, is in marked contrast to the Edinburgh experience where up to 85% of intravenous drug misusers may be infected. The Edinburgh workers showed that this infection commenced as an epidemic in late 1983. It has been suggested[14] that differences in the frequency of needle sharing in the two cities may account for this, but the almost identical prevalence of hepatitis B markers does not support this hypothesis. It is more likely that there is simply a difference in the time of arrival of the virus in the two regions.

Since the HIV and hepatitis B viruses have in common some recognized patterns of transmission,[15] it appears that there exists in Glasgow a temporary opportunity to limit the introduction and spread of acquired immune deficiency syndrome in drug misusers. This will require the rapid initiation of effective means of control. If drug misusers can be persuaded to stop sharing needles, this aim might be achieved. A substantial drop in their morbidity rate should result if they ceased entirely from the practice of self-injection. The serious implications of HIV infection together with, at present, its low prevalence in the west of Scotland shown by this and other studies,[16] have prompted a vigorous initiative by the Drug Problem Resource Group. Together with interested professionals from churches, social work departments and specialist branches of medicine, a campaign is under way to attempt to modify the behaviour of drug misusers in this region. Steps are also being taken to try to arrange care in the community for those who become seropositive, or ill, from HIV infection.

No attempt was made in this study to assess the usefulness of a general practitioner in helping drug misusers achieve a drug-free life, nor was there any systematic follow up of ex-residents or any reliable information about subsequent abstinence from drugs. However, some of the illnesses seen during the year were serious, and a few were life-threatening. Many were professionally stimulating and satisfying to treat. What this study surely confirms is that the main role of the general practitioner in the care of drug misusers is no different from his role in the care of other patients — primarily the prevention, diagnosis and treatment of disease.

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