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ADDICTION TO UNRESTRICTED DRUGS

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The Pharmacy and Poisons Act, 1933, provides for the registration of sellers of poisons, places poisons in two lists for purpose of sale, and draws up the Poisons Rules under which various schedules of poisons have been arranged, either further restricting their sale or giving exemptions. The Dangerous Drugs Acts, 1920 to 1932, govern the sale of drugs of the morphine and cocaine series. One function of these Acts is to regulate the consumption of those drugs likely to lead to addiction, placing the onus of prescribing the drugs listed on registered medical and dental practitioners.

In the W.H.O. Technical Report Series No. 21 (1950) drug addiction is defined as a state of periodic or chronic intoxication detrimental to the individual, and to society, produced by the repeated consumption of a drug (natural or synthetic). Its characteristics include: (1) an overpowering desire or need to continue taking the drug and to obtain it by any means; (2) a tendency to increase the dose; (3) a psychological and sometimes physical dependence on the effects of the drug.

Differentiation is made between addiction-producing and habit-forming drugs—the latter may be taken repeatedly without the production of all the characteristics outlined.

The sale of most drugs known to lead to addiction is governed by the Acts mentioned, but there are a few drugs, thought by many physicians to be "safe," which

are not so included. In some cases this is because the drug is comparatively new, since a certain amount of time must elapse after clinical use of the drug has started, before evidence of its danger in this direction is available. Drugs which have been included in the list of scheduled poisons comparatively recently include those of the stimulant group such as benzedrine, and sedatives, such as methylpentynol, known to the lay public as relaxing drugs to allay apprehension. In other cases drugs which have been in use for many years are yet freely obtainable without prescription because they are thought not to be addiction-producing.

This small series of female patients, who have been under our care during the past two years, is described to draw attention to the possibility of addiction to drugs which can be obtained without prescription. That this possibility is not widely recognized is shown by the fact that in several articles in the *Practitioner* between 1951 and 1957 on sedatives and hypnotics (Ström-Olsen, 1951; Morgan, 1953; Shorvon, 1955; Sears, 1956; Dunlop, 1957), while the danger of addiction to barbiturates is mentioned, addiction to non-barbiturate hypnotics is not—and their safety is emphasized. Dunlop does point out that sedatives carry with them the danger of dependence and even addiction, but does not deal with the problem except in relation to barbiturates.

The following are the drugs taken by patients in this series, and may all be obtained from a chemist without prescription.

Carbromal is a white crystalline powder, almost odourless and tasteless. The tablets (*B.P.C.*) contain 5 gr. (0.32 g.). It is also made up in proprietary preparations such as "persomnia," containing carbromal 195 mg., and bromvaletone 65 mg.; "dormiprin," containing carbromal 120 mg., bromvaletone 40 mg., and alkalized aspirin; and "somnotil," containing chlorbutol 3 gr. (0.2 g.), carbromal 1 gr. (65 mg.), and bromvaletone 1 gr. (65 mg.). It is a mild hypnotic and sedative.

Chlorodyne (tinctura chloroformi et morphinae, *B.P.C.*) contains about 1/64 gr. (1 mg.) of anhydrous morphine in 10 m., as well as small quantities of chloroform, alcohol, and ether. It is used to control cough, vomiting, and diarrhoea.

"*Preludin*" (phenmetrazine hydrochloride) has been in use in this country only since 1955, when it was introduced from Germany for the treatment of obesity. It is a secondary amine, related pharmacologically to the amphetamine group of compounds.

Case 1

While working as a telephonist during the war this patient, unmarried, aged 44, had diarrhoea. She took chlorodyne in normal dosage for this, and found her fears and apprehensions relieved. She continued to take increasing amounts of chlorodyne during the rest of the war period, reaching 3 to 5 bottles a day. This amount produced intoxication and led to her admission to mental hospitals. At various times she attempted to give up the drug but succeeded for only a few months. She then would develop an overpowering urge to start again. The story continues with a four-year period in hospital from 1951 to 1955 and periods in hospital in 1956 and 1957. Even in hospital she would abscond, to be found in a drunken condition some hours later, having drunk two, three, or four bottles of chlorodyne. Her illness has led to her social downfall, to a situation of loneliness, to work much below her capabilities, and to family quarrels. This situation, together with her basic personality of cyclothymic type with periods of

depression, tends to be self-perpetuating. So far there has been no intellectual or moral deterioration. The depressive episodes are not directly related to the drinking bouts.

Diagnosis: cyclothymic personality; depressive episodes.

Case 2

The patient—married, aged 66—suffers from recurrent depressive episodes ushered in by feelings of abdominal discomfort, for which she has taken chlorodyne. She obtains this by going to various chemists, buying it out of her housekeeping allowance and having three bottles a week: she was taking approximately $\frac{1}{4}$ gr. (16 mg.) of anhydrous morphine daily. At first the patient felt it was doing her good but latterly harming her: "It made me act quite crazy; I could not do without it afterwards." On admission she was in a state of severe depression, with delusions of guilt. There were visual and auditory hallucinations of depressive type. She responded to E.C.T., but relapsed six months later and again started taking chlorodyne; this time she recovered spontaneously. In between attacks there is no evidence of drug-taking. Her personality is shy and retiring. There are occasional mood swings.

Diagnosis: manic-depressive psychosis.

Case 3

This patient—aged 35, married—had a strict upbringing in an upper middle-class family. At 16 her father felt his responsibilities were at an end and he took no interest in her. She got herself a job as governess, and then during the war became a V.A.D. and after that a laboratory technician. She injured her back in a riding accident and had to have several operations. During the last of these, in 1955, she developed feelings of tension and anxiety, and started taking carbromal on the advice of a friend, at first only at night and then during the day, to try to get some sleep. She gradually increased the dose until she was taking 15–20 tablets a day, and would be found staggering round the house, unable to do anything. She was eventually found semiconscious, and was admitted to hospital. There was a period of severe tension, restlessness, and insomnia on stopping the tablets. Personality: anxiety-prone, shy, a poor mixer. No evidence of psychopathic traits.

Diagnosis: anxiety state in immature personality.

Case 4

An unmarried State-registered nurse aged 27, this patient had been in mental hospitals intermittently since completing her training in 1953. She started taking persomnina when she was involved in a coroner's case, though in no way blamed for the death. She felt tense, panicky, took drugs, and woke up in hospital—she was told she had taken an overdose. Since then, whenever she had a job she started taking one or two tablets of persomnina, and gradually increased the dosage until she was found to be ataxic, confused, or somnolent by another member of the staff. The patient has had several jobs since, but always panics and takes drugs—usually persomnina, glutethimide ("doriden"), or carbromal. While in hospital she took 29 tablets of persomnina in an attempt at suicide.

Diagnosis: inadequate psychopath.

Case 5

This woman aged 30 years, married, has been under treatment for at least five years for anxiety symptoms and taking drugs. She states that she first started taking drugs on her doctor's instructions: methylpentynol was prescribed, but she was able to leave the prescription at the chemist's and buy as much as she wanted. She was admitted to one hospital in coma, and afterwards had an epileptic fit and a period of toxic psychosis.

When first seen in 1957, she had been taking chloral and paraldehyde. After stopping all drugs two epileptic fits and

a confusional state occurred. While in hospital she managed to bribe someone to bring her in persomnina tablets. After discharge she continued these—25 lasting her two days.

She puts the onus on the psychiatrists to cure her, and asks how she is expected to get better when she can obtain tablets without prescription. She points out that "pep" tablets are advertised in the press.

Diagnosis: hysterical psychopath.

Case 6

A dentist's receptionist—aged 23 years, single—began to take preludin "to slim." She has not become slimmer, but found that the tablets produced a "pepped up" feeling which was very agreeable. To maintain this feeling she had to increase the dose until she was taking between 30 and 60 tablets a day. She became unable to sleep, and kept awake during the day by using the tablets. To keep up the supply she stole from her employer and a considerable sum of money was involved. As a result she lost her employment, and court action was averted by her parents and the dentist's sympathy.

On admission she said she had stopped taking tablets, but on her first week-end out she bought more. She seemed evasive and untruthful, although previously described as generous, good-natured, and impulsive. It seems that since her discharge she has probably continued to obtain tablets, and has made little attempt to tackle her rather difficult life situation.

Diagnosis: immature psychopathic personality.

Case 7

This patient, aged 27 and married, was born in Australia, was trained as a children's nurse, and came to England after her marriage to an Englishman. Disappointed over housing difficulties, she found she could not manage on her housekeeping allowance. She became bored and depressed at home and started using benzedrine inhalers 2½ years ago, but stopped when these were no longer obtainable. About 18 months ago she heard of preludin tablets and started taking two to three daily, but gradually she increased the dosage to ten tablets a day.

She used housekeeping money to buy tablets, got into debt, then stole money from registered letters given to her by her husband to post—these were hire-purchase payments, so her husband soon discovered the failure of payments. He searched the house and found empty bottles representing over £15 worth of preludin.

On giving up the tablets no withdrawal symptoms occurred apart from an increase in depression and anxiety. Her sister was a drug addict.

Diagnosis: immature personality.

Discussion

In each case there was an overpowering need to continue taking the drug concerned, with stealing and lying to obtain it in five cases at least; a tendency to increase the dose, with indifference in the case of the chlorodyne to the exact quantity drunk out of the bottle; and psychological dependence on the drugs. In at least the three patients taking carbromal, and one taking chlorodyne, there was evidence of physical dependence, with an abstinence syndrome on withdrawal. The other patients had already had their drugs stopped before they were admitted to hospital.

One patient who took chlorodyne did so only in the early phase of a depressive psychosis, and in this respect is similar to the cases described by Osberg and Wilder (1955).

Of the drugs dealt with here, reference to addiction can be found only to preludin. While a report by the Council on Pharmacy and Chemistry (1957) states that as yet no cases of addiction have been recorded, Bethell (1957), Clein (1957), and Glatt (1957) each reported a case of toxic psychosis following heavy self-medication. Bethell and

Clein consider that the drug ought to be included in Schedule 1 of the Poisons Rules. To obtain drugs on Schedule 1 the poisons book must be signed, but a prescription is not necessary.

It is not intended here to discuss the details of personality of the patient except in so far as they throw light on the reason for addiction to this type of drug—that is, one obtainable without prescription. It appears that not only must the drug be readily available—as all these are to the entire population—but the patient must be aware of their existence and also be prepared to take the drugs in an experimental fashion. They will take as much as is required to alleviate the symptoms rather than pay heed to warnings on the box about it being dangerous to exceed the stated dose. It is thus people who have some medical or nursing knowledge, and whose knowledge gives them a feeling of confidence, who are likely to take to these drugs. The patients concerned are usually not now working, since they could then obtain barbiturates, but have been connected with the medical, dental, or nursing professions in the past. The high incidence of drug addiction of all kinds among doctors, dentists, and nurses has long been recognized, and this series of patients must be considered as part of the same problem, which is not made easier to solve when the drugs concerned are so readily procurable.

The W.H.O. Technical Report series No. 57 (1952) divides drugs into three groups: (1) morphine and allied groups, with a pharmacological action producing addiction in any person if more than a certain—often small amount—is taken; (2) a group whose pharmacological action never produces compulsive craving, yet is found desirable by some individuals—producing habituation which can be interrupted without significant disturbances; (3) an intermediate group, in which the psychological make-up of the patient is paramount, but the pharmacological action of the drug does play a significant part. The sedatives mentioned here are usually regarded as belonging to the habit-forming group, whereas they should almost certainly be included in the intermediate group. Even if addiction is produced in only a small number of patients, these become much more difficult to treat if they can get supplies of drugs so easily. Fraser and Grider (1953) point out that drug addiction is a "contagious disease" which may spread from an addict to a hitherto drug-free though possibly predisposed person. At least two of these patients started their addiction this way.

Conclusion

It appears, therefore, that all drugs which have a euphoriant or sedative action are likely to cause addiction in predisposed personalities, and the treatment of such patients is made more difficult when such drugs can be freely obtained without any prescription. It is therefore recommended that all such drugs be included in Schedule 4 of the Poisons Rules—that is, can be obtained only on prescription.

In the case of new drugs which have such an action and therefore in all probability will lead to addiction, these should be included in the Scheduled List of Poisons *ab initio*, instead of being sold across the chemist's counter without hindrance until cases of addiction have been described. Vogel *et al.* (1948) point out that ideally the prevention of drug addiction is brought about by developing a people so emotionally sound and well integrated that they will have no need for chemical aids to adaptive behaviour. The second and more realistic approach in our present society is to keep the addiction-prone and the ex-addict from narcotic drugs.

Summary

Attention is drawn to the possibility of addiction, using the W.H.O. criteria, to drugs which may be obtained without prescription.

Seven cases of addiction to such drugs are described.

It is suggested that all drugs which have euphoriant or sedative action may cause addiction and should be placed on the list of Schedule 4 Poisons. They could then be obtained only on prescription.

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CASE OF INFANTILE ULCERATIVE COLITIS

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We record here a case of ulcerative colitis in an infant who is probably the youngest patient suffering from this disease yet reported. The child was barely 3 weeks old when the symptoms first presented.

Ulcerative colitis in infants runs a similar course to that in adults. The disease may present as an acute fulminating attack, as recurrent subacute attacks, or as an insidious progressive unrelenting disease which keeps the patient a constant invalid. However, in infancy the disease seems to be more severe, has a higher incidence of complications, and is less responsive to treatment—a view which accords with that of Bagen and Kennedy (1955).

The diagnosis of infantile ulcerative colitis may be difficult and should be kept in mind when an infant presents with symptoms of persistent diarrhoea, especially if the motions contain blood and mucus. Proctoscopy, sigmoidoscopy, and barium enema will confirm the diagnosis in nearly every case.

In acute disease extensive x-ray changes may be apparent in less than two weeks (Hodgson and Kennedy, 1955). In their review they follow Weber and Bagen's (1940) classification and divide their patients as follows. Type 1:—X-ray findings positive, the lesion beginning in the rectum and progressing proximally; proctoscopic changes present. This group was the commonest in their series. Type 2:—Proctoscopic manifestations negative or equivocal; x-ray evidence of disease present. Type 3:—Unusual proctoscopic appearance with peculiar mucosal pattern and ulcers in the rectum and sigmoid; radiological examination reveals evidence of disease on the right side.