General Practice Observed

Withdrawal of Prescriptions for Amphetamines

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Summary

An abrupt method of terminating prescriptions for amphetamines was accepted by most patients who were given an adequate explanation for this. It is unlikely that arresting the prescribing of amphetamines will affect the behaviour of dependent patients, and the effect of voluntary limitations on prescribing are more likely to be felt in the long term.

Introduction

On 18 March 1968 the Chief Medical Officer of the Ministry of Health wrote to all general practitioners and to the chairmen of group hospital advisory committees drawing their attention to the large number of legal prescriptions for amphetamines, and suggested that illegal traffic in this group of drugs could be controlled more readily if its legal use was "restricted to that which is absolutely necessary." The letter continued, "... it is probable that the bulk of what is now used legally is prescribed for the suppression of appetite or the alleviation of depression. A substantial body of authoritative opinion holds that the first of these is unnecessary and the second largely ineffective."

Since this communication several local medical committees throughout the United Kingdom have adopted a policy of voluntary restriction of the prescribing of amphetamine preparations. Determining the effectiveness of this voluntary contribution is not easy. The annual statistical analysis of prescribing presented by the Department of Health and Social Security contains reference to stimulants and appetite suppressants, but does not distinguish between amphetamines and other preparations. The evidence shows, however, that there has been a constant annual decrease in the number of prescriptions in this group from 5.3 million in 1965 to 3.1 million in 1970.¹

Interrupting or changing regular prescribing habits in general practice can be disturbing for the patient and difficult for the doctor. In June 1966 I succeeded to a post of principal general practitioner in a single-handed practice in an urban area of South-west Lancashire. I decided to restrict the prescribing of amphetamines to those circumstances where the use of the drug was necessary to maintain good health. This was implemented from 1 August and the results of the decision in terms of the effect on the patient and the doctor are presented here. The result of the exercise was determined in August 1970.

Patients and Method

Two groups of patients could be identified as being involved in the problem.

Group 1.—Patients who, according to the medical records, had been receiving a regular monthly prescription of amphetamine tablets or amphetamine containing tablets for at least the previous six months. There were 32 such patients (28 women and four men) and the mean age was 34 (range 24 to 76 years).

Group 2.—This group contained patients who had a less frequent association with amphetamines, or who made a new or apparently new request for the drug. Up to the end of January 1967, 54 such patients were encountered and only three of these were men. Subsequent to that date requests for amphetamines became very infrequent and were not recorded.

The approach to the problem of a denial of the patient's request for a prescription for amphetamines was broadly the same for both these groups, and the technique described here was applied to both groups. The outcome, however, is analysed in detail only for group 1.

The surgery consultation which contained the problem of prescribing amphetamines was as follows.

The initial request by the patient for an amphetamine preparation was couched in such terms as "My slimming tablets," "My energy tablets," "The tablets to help my nerves," or "My usual tablets." As the doctor was new to the practice I could ask the patient to identify their request more precisely. Many patients then produced a tablet which could be readily identified, or they could give the name of the tablet, or they were able to describe the tablet clearly, or, as occurred in five instances, presented a tablet which they claimed a friend or relative was taking. In this way it was possible to identify a group of patients whose request was specifically for an amphetamine preparation.

Having established the precise nature of the preparation asked for, the next step was to establish a reason for asking for this particular one. In only one instance—that of a patient who had narcolepsy—was the reason given by the patient regarded as adequate. The reasons given by the 32 patients in group 1 are shown in table I.

The patient was now told "I am not prepared to provide this preparation for the reason that you have given." This blunt statement invariably induced the reaction in the patient of asking "Why not?" The reason given for the denial was that

TABLE I—Reasons Given by Group 1 Patients When Asking for Amphetamines

Reason	No. of Patients	M.	F.
Weight reduction	13	0	13
To help nerves	3	1	2
To give energy	7	0	7
Been taking them for years	3	0	3
Prescribed by hospital specialist	5	2	3
Narcolepsy	1	1	0
Total	32	4	28

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amphetamine drugs are drugs which can cause addiction. To support this, use was made of the book by Meyler,³ which says on page 4: "This group of drugs, and especially amphetamine and its derivatives, can give rise to the development of habituation and addiction, and has lately become a major social problem. The use of these "drugs" is widespread in some countries, and their abuse among young people is commonly reported (e.g. in some of the larger cities of Great Britain). To judge from reports in the world and medical press the impact of this new type of drug addiction may, at all events in some places, have become at least as serious a problem as addiction to opium and its substitutes."

This statement was held to support a personal view and related the problem of amphetamines to what many people would regard as very much more serious—that of addiction to opium and its substitutes.

In the face of this evidence nearly all the patients presented an opportunity to explore in greater detail their reasons for requiring an amphetamine preparation. This opportunity was grasped by the doctor and the patient's problem was defined in terms acceptable to both. The process involved, for many patients, repeated and lengthy consultations in the practice, and, for some, the support of a consultant psychiatrist was sought.

The doctor was now able to offer the patient alternative methods of dealing with the problem which had been agreed between them.

GROUP 1 PATIENTS

Of this group, the man with narcolepsy had an acceptable reason for the continuation of the prescribing of amphetamines. For all the other patients further prescription was denied. For those who required amphetamines to lose weight, and those who required amphetamines in order to help their nerves, a clearer definition of the patient's problem permitted the explanation that in the long term amphetamines do not relieve the cause of depression and that in the short term amphetamine therapy does not result in sustained weight loss. For the patients who required amphetamines "for energy," it was pointed out that the energy derived from amphetamines is artificial, and that there was a need to explore the reasons for tiredness. Two patients were found to have a haemoglobin of less than 11 g/100 ml.

The patients who seemed to present the greatest problem were those who maintained that the hospital specialist had prescribed the drug. From the medical records, three such claims were confirmed and the prescriptions by the hospital specialist began in 1956, 1958, and 1960. Attention was drawn to the failure of these long periods of treatment to effectively deal with the agreed problem. In all instances I suggested that a revisit to the specialist should take place to determine his view on the continuance of the prescription. None of the five patients who claimed consultant authority agreed to further referral and three patients became registered with other doctors. The remaining two were able to abandon amphetamines without apparent difficulty.

During the process of evaluating the patient's problem it was discovered that of 13 women who wanted amphetamines to

lose weight, four had a significant depression, and of the seven women who wanted amphetamines for energy, all had significant depression. One of these patients with depression was successfully treated in association with a psychiatrist in his outpatient department, and one required treatment as an inpatient. The remaining nine with depression were successfully treated in the practice without using amphetamines. Four patients had recurring depressive episodes during the ensuing four years which were treated other than by amphetamines. The outcome for the 32 patients in group 1 is shown in table II.

Case Reports

CASE 1—SUICIDE

A 26-year-old woman lived in a four-bedroomed terraced house with her three children. The husband had abandoned the family three years previously. She had one conviction for police assault and being drunk and disorderly. She worked as a part-time barmaid and her employer had observed that she took yellow tablets with a glass of port wine at two-hourly intervals while she was working. She had several debts both to the publican and to her friends. She was also in receipt of Social Security benefits. At the time of the denial of a legal supply of amphetamines, her problem was seen to be significant and contained an appreciable depressive element. At the first consultation and subsequently she adamantly declined to accept alternative treatment and refused either inpatient or outpatient psychiatric treatment. Some two months after the arrest of legal prescribing she presented in the late evening with disorderly behaviour, and the police and the doctor together attempted to persuade the patient to accept more intensive treatment. At that time she was thought to be under the influence of stimulating drugs. During a long interview in her home on that evening, the patient declined all forms of assistance, and there was not sufficient reason to believe that she was at risk to her life or constituted a danger to other persons. For this reason neither the doctor nor the police could take any specific action. The following day, however, this young woman made arrangements for her children to be cared for by a friend, and then, having sealed the doors and windows of her home, turned on the gas taps and committed suicide. At the inquest the coroner, having examined all the available evidence, was kind enough to make the suggestion that the withdrawal of legal prescribing was a correct decision, and that it was not possible to assess to what extent this was associated with the decision to commit suicide.

CASE 2

A 37-year-old man was married with four children and lived with his wife in a council house. He had a long history of association with a psychiatrist, and the diagnosis most frequently offered was of a psychopathic personality. He was known to be a regular taker of amphetamines, barbiturates, and alcohol for many years and in excessive amounts. He had repeated convictions for being under the influence of drugs when driving and had lost his driving licence. He had also been convicted for assault when drunk. He was only occasionally employed. His wife was also suspected of drug abuse. During the ensuing three years he made repeated attempts to obtain amphetamines on prescription, and although each of these attempts was denied, he maintained the association with the doctor. At the end of the four-year period there is no doubt that he continued to take drugs illegally.

CASE 3

A 28-year-old woman admitted to taking amphetamine and chlor-diazepoxide for her nerves since the loss of a child at birth four years previously. She readily accepted that she was in danger of becoming addicted to drugs, and her husband agreed with this point of view in so far as he had noticed a change in his wife's behaviour. There were two children in the family, one of whom, aged 11, had never attended school. A clear definition of her problem permitted a more realistic management and within a year she had not only been relieved of her dependence on amphetamine, but had also resolved the problem concerned with the loss of her

TABLE II—Outcome for Group 1 Patients by August 1970

Outcome	No. of Patients	M.	F.
Suicide:			
1 gas poisoning, 1 barbiturate overdose	2	0	2
Removal from "list"	3	1	2
Amphetamines dis-continued after psychiatric out-patient attendance	1	0	1
Amphetamines dis-continued after psychiatric in-patient attendance	1	0	1
Continued taking amphetamines:			
Illegally	1	1	0
For narcolepsy	1	1	0
Amphetamines dis-continued within "practice" situation	23	1	22

child and was able to lead a more normal life without any form of drug therapy. At the end of the four-year period of observation she remained well.

Conclusion

Though relatively few patients were involved in this exercise, the time and effort required to arrest legal prescribing of amphetamines was disproportionately high. On the whole the method used produced acceptable results. The number of patients who could be regarded as addicted was probably only three. For them, the abandoning of legal prescribing seemed to be of little consequence in so far as two committed suicide and one continued illegal association with amphetamines. It was, however, apparent that amphetamines had made no significant contribution to the relief of depression and the drug may, for some women, have created more problems than were relieved. The arrest of prescribing for these patients was a necessary pre-

cursor of more effective treatment. The exercise also showed in a small way that some patients attach a high degree of significance to consultant opinion and are willing to use such opinion to manipulate the action of the general practitioner.

The problems presented by the voluntary withdrawal of amphetamine prescribing should not be underestimated. Suicide can provoke powerful emotional reactions in the doctor. The supportive role of a sympathetic coroner was a significant contribution which allowed me to continue to pursue a policy which might otherwise have been abandoned.

References

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- ² Department of Health and Social Security, *Annual Report, 1970*, Cmnd. 4714. London, H.M.S.O., 1971.
- ³ Meyler, L., *Side Effects of Drugs, 1963-1965*. Amsterdam, Excerpta Medica, 1966.

Medical History

Gelsenkirchen Typhoid Epidemic of 1901, Robert Koch, and the Dead Hand of Max von Pettenkofer

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In 1901 there was in Gelsenkirchen, in the Ruhr valley, an outbreak of typhoid fever that claimed over 3,000 victims, 8% of whom died. This outbreak was the subject of an official investigation that lasted for two and a half years and resulted in the criminal prosecution of the two directors of the Gelsenkirchen waterworks, E. Hegeler and K. Pfudel, its engineer, M. Schmitt, and its chief mechanic (*Maschinenmeister*), H. Kiesendahl.¹ A contemporary German waterworks engineer, E. Grahn, to whom we owe the most detailed account of this judicial process, wrote at the time that the whole educated world had awaited the verdict with an "almost feverish tension."²

That this was so is hardly surprising for the chief expert witness for the prosecution was no less a person than Robert Koch—then a medical scientist of world-wide renown—while the chief defence witness was Rudolf Emmerich, who had succeeded Max von Pettenkofer in the Chair of Hygiene at the University of Munich. In spite of the crucial importance of this trial to public health, and of the eminence of rival expert witnesses, it has been completely overlooked by historians of medicine.

Pettenkofer and his "Localist" School

To understand the issues that were to be tested at this trial it is necessary to turn the clock back to 50 years before, when

the mode of transmission of the two water-borne diseases par excellence—cholera and typhoid—was unknown and hotly disputed. In 1849 John Snow, of London, and William Budd, of Bristol, almost simultaneously postulated that cholera was a primarily water-borne disease due to a living organism. In 1855 Snow reinforced this theory in a work that has long been recognized as a classic of epidemiological reasoning. It was also in 1855 that Max von Pettenkofer of Munich criticized Snow's publication of six years before claiming that the history of cholera epidemics in his city offered a striking proof that the disease was *not* water borne.³ His epidemiological investigations had, he affirmed, disposed "once and for all" of the idea that drinking water could spread cholera, and it was contamination of the soil by human faeces and urine that gave rise to a "cholera-miasm." Ten years later he was referring to "typhoid and other soil-diseases."⁴ In the following year, 1866, the third International Sanitary Conference at Constantinople—which lasted for no less than seven months—was dominated by Pettenkofer's fallacious a priori reasoning and voted unanimously that air was the main vehicle of the "generative principle" (whatever it was) of cholera.⁵

In 1869 Pettenkofer once again returned to the attack, sarcastically referring to the "one and only drinking-water faith"—which he dismissed as "downright impossible"—quoting with approval an English sanitarian, Jabez H. Ogg, as having said that "the water theory would no longer hold water."⁶ Pettenkofer's own explanation was that there was a cholera germ (*Cholerakeim*), which he designated *x*, that came from India but could not by itself produce cholera. In suitable conditions of place and time there was in the soil a substrate, *y*, which united with *x* to produce *z*. It was *z* that was "the real cholera poison," and *x* without *y* was harmless.

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