USE, MISUSE AND ABUSE OF STIMULANTS IN MALAYSIA

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Identification patterns of abuse and misuse of stimulant drugs of the amphetamine type have been established since their advent about four decades ago. For many persons, these substances have dependence producing characteristics which can bring about serious clinical and personal problems. Abuse of these substances arises from and is perpetuated solely by psychic needs to overcome depression or fatigue or to attain the euphoric and excitatory effects associated with the drugs.

The actual incidence and prevalence of cases of drug dependence of the amphetamine type in Malaysia is obscure. Our clinical experience indicates an increase in amphetamine abuse. The degree to which the abuse of stimulant drugs stems from over prescribing or from illicit source is unknown. However the problem is serious enough to warrant the concern of the medical profession in Malaysia and an examination of use, misuse and abuse of the stimulants. There has also been an increase in the abuse of central nervous system depressants and heroin.

USE AND MISUSE

The indications for the medical use of stimulants are subject to varying degrees of professional dispute. The argument based on both scientific and ethical points, is centred on the efficacy of these drugs as well as on the jeopardy involved in initiating a treatment regime that, in vulnerable personalities can result in the development of psychic dependence and tolerance. Stimulants are presently employed in certain therapeutic regimes entailing prolonged continuous medication. If medical use is not to become medical misuse, any such treatment should be subjected to the discreet assessment and careful management of the patient. The physician should be wary of their dependence producing potential and recognise that some patients may seek other sources of supply either illegally or from another physician.

In the past two decades, a number of amphetamine-like substances have been used as anorexiants and have been prescribed for the treatment of obesity. These drugs also stimulate the central nervous system to varying degrees and therefore have a potential for psychic disturbance and dependence. Particular scrutiny should be given to patients who request amphetamine type drugs for weight control.

Amphetamines appear to be effective for few individuals in acute stress situations with symptoms of mild depression. This mode of treatment is futile without simultaneously instituting other therapeutic efforts aimed at alleviating the underlying emotional disorder. Authenticated evaluation reveal that dextroamphetamine in general is only slightly more superior than a placebo in ameliorating depressive symptoms. The use of stimulants to antagonise drug induced depression in acute poisoning may be desirable but not proper to use for prolonged administration in alcohol or barbiturate dependent persons. This permits the patient to take increasing amount of depressant drugs — a habit which can result in physical and mental deterioration. In fact, the use of amphetamine drugs is contraindicated for alcoholic and other dependent prone persons. When a physician prescribes stimulants, he should do so for a limited time and for a specific purpose.

Not too infrequently are physicians requested to prescribe stimulants for a variety of non-medical reasons. Sports is one field where such requests are made. Amphetamines can drive trained athletes to increased performance in individual events involving strength and endurance but this practice can, by artificially pushing the athlete beyond his normal capacity be detrimental or even fatal. This also violates the principles of sportsmanship.

In the field of horse-racing, jockeys who abuse amphetamines are prone to accidents because of both the excitation produced by these agents and the excessive fatigue which may break through and manifest itself at an inopportune time.

They may also be asked by students preparing for examinations, by executives facing a strenuous business week, some aspiring sexual athletes who wish to enhance their sexual prowess or by taxi and lorry drivers making long hauls, and night-club singers and dancers who are in the show business and career persons on shift duties.

It should be stressed that amphetamines are no

"touch stone" source of extra mental or physical energy. They only goad the user to a greater expenditure of his own reserves, sometimes to a crucial point of depletion and fatigue that is often not appreciated. With or without amphetamines, automobile and truck drivers and air pilots who continue beyond their physical and mental capabilities jeopardise their lives and lives of others. Students who resort to stimulants for all night vigil, not only burn the midnight candle at both ends but do so in the centre as well. This is a breach of sound educational practice. Though stimulants may increase volubility during examinations, there is a concurrent loss of accuracy.

Since occasional use may not harm the individual or lead to antisocial behaviour, it is a matter of conjecture whether this practice should be judged as use or misuse.

However, these situations are of a different order of magnitude and the persons desiring "help" cannot be considered sick and in need of medical treatment in the usual sense. There is also the danger that the efficacy of a stimulant in helping a person achieve a time limited goal may predispose the person to lean upon amphetamine type drugs as desirable rather than dangerous substances and thus may open the door for future abuse.

ABUSE

A startling aspect of drug taking in Malaysia is that there is a great deal of experimenting with amphetamines among youngsters. Many of these persons combine stimulants with other drugs, alcohol (toddy, samsu), ganja (marihuana), Barbiturates, methaqual one (Mandrax), morphine and heroin. Not infrequently serious addicts abuse stimulants by intravenous administration for the express purpose of experiencing the bizarre mental effects, which may result in antisocial behaviour.

A professional resigned his job on the spot by foregoing a month's pay, sold his car for a song and flew to San Francisco where he made such a social nuisance of himself that he was immediate ly deported. More often they are taken orally in the form of amphetamine barbiturate (purple hearts) or amphetamine-methaqualone (Biji Kena) Patterns of self medication with amphetamine-type drugs are varied. Some start taking stimulants to neutralise effects resulting from abuse of barbiturates or alcohol, thus developing cyclical pattern of sedation-stimulation, in which to a degree, each type of abuse counterbalances the effects of the other. Other persons try to achieve both effects simultaneously. In these cases, the clinical problem is of a dual nature. Other dependent persons, who became chronic abusers were introduced to stimulants as ahorexiants or to combat fatigue or depression. When the rubber price was at its lowest ebb, some rubber tappers resorted to stimulants to work long hours at more than one occupation to bolster the income. After a hard day's toil, they used to wake up early in the morning to tap as they believed that the yield is greater if tapped in the pre-dawn era. Some developed a mild form of psychic dependence in which, although believing that the drugs are essential to maintain their daily routine, they do not increase the dosage much beyond usual therapeutic limits. The more prevalent pattern of abuse is the one in which the person self-administers the drug with increasing frequency and increasing amounts to get the desired euphoric effects. The paramount danger of self medication is that the abuser often is incapable of accurately evaluating his performance and likely to overmedicate – a habit that in neurotic or dependence-prone persons, often leads to chronic abuse.

PSYCHIATRIC CONSIDERATIONS

Abuse of the amphetamine-type drugs almost invariably reflects some underlying forms of psychopathology. Amphetamine dependence is a symptom complex that usually reflects some form of psychological and behaviouristic disorder that has preceded and predisposed the patient to drug abuse. The stimulant is commonly used as an 'adjustive' mechanism to help the person "cope" with problems of living and emotional difficulties. Abuse constitutes a "reaching out" for something without which the patient feels relatively helpless and there is a continuum between what constitutes ill advised "self medication" and full abuse.

The underlying reason for drug abuse varies from person to person and the drug may serve different purposes at diverse times for the same patient. Usually the amphetamine-dependent patient is consciously or unconsciously, seeking to attain one or more of the following effects: relief from fatigue, increased mental alertness, heightened sense of well being and relief from the emotional tone of depression.

Dependence of amphetamine like substances is generally a chronic relapsing disorder. The treatment goal should be abstinence. Irrespective of the relapse, continual treatment of the patient's state and underlying emotional disorder is essential. Withdrawal of drugs of the amphetamine type is never threatening to life and requires psychological rather than somatic therapy. Although there

is no characteristic abstinence syndrome, abrupt withdrawal can reveal a masked depression or it may precipitate a Depressive Reaction with a suicidal potential in some cases. Because of the ever increasing frequency of multiple dependence patterns, the physician should make every effort to ascertain the patient's drug history before attempting withdrawal. As indicated, the amphetamine abuser often is taking barbiturates or heroin in combinations or separately and if so, procedures should be instituted to withdraw him from them.

Amphetamine intoxication can precipitate a schizophrenic episode in some, especially latent psychotics. In other persons, an acute and florid paranoid psychosis is produced called amphetamine psychosis. This is characterised by variable amounts of anxiety, auditory and visual hallucinations and feelings of reference. They do not exhibit the specific dissociated and autistic disorganization of thinking associated with schizophrenia. Without definitive or supportive treatment and after care relapse is frequent resulting in hospitalisation. Fluphenazine Enanthate, Thioridazine and Diazepam are used in varying doses as per physical tolerance and clinical response. This phenomenon was recognised as early as 1938 and there is an excellent report on this subject by Connell.

AFTERCARE

Psychiatric help should be sought be obdurate cases where indicated and feasible. In the absence of such referral, the general practitioner should administer those forms of psychotherapy that he is qualified to provide. In cases in which it is not possible to give specific therapy, the general physican can function effectively in a supportive and rehabilitative role. Physician leadership is essential to sound community education and prevention programmes and also in creating a climate where drug dependence is regarded as a medical problem as well as one involving social and law enforcement agencies.

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IMPORTANCE OF CEREBELLAR DYSFUNCTION IN TREMOR MECHANISM

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Introduction of l-Dopa for treatment of parkinsonism has given us the new powerful weapon for analysing the mechanism of symptoms, such as rigidity, tremor and akinesia, in addition to experiences of the stereotaxic neurosurgery

Here specially, the generation of tremorous movement will be discussed.

1. Attitude of tremor in response to l-Dopa therapy is observed quite differently in each case. In about half of the cases of parkinsonism with various grades of tremor, tremor is abolished or markedly reduced. But in other cases, tremor is not changed or influenced at all or even seems worsened. In such uncommon instances, amplitude of tremor becomes larger and less easy to control voluntarily. We had then the working hypothesis, whether the phenotype or pattern of tremor would be dependent on the grade of muscular rigidity, the latter being more definitely improved or alleviated by l-Dopa therapy.
2. In about twenty years experience of human stereotaxic surgery on the thalamus of parkinsonism, we are very confident that rigidity and tremor are slightly differently located.