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DRUG ADDICTION[1]

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DRUG ADDICTION

A. CANNABIS INDICA (HASHISH)

by

Dr. Tigani El Mahi
Psychiatrist, Clinic for Nervous Disorders, Khartoum

and

Lecturer in Psychiatry, Faculty of Medicine
University College, Khartoum

"Is it beyond thee to be glad with the gladness of this rythm? to be tossed and lost and broken in the whirl of this fearful joy?

"All things rush on, they stop not, they look not behind, no power can hold them back, they rush on.

"Keeping steps with that restless, rapid music, seasons come dancing and pass away - colours, tunes, and perfumes pour in endless cascades in the abounding joy that scatters and gives up and dies every moment."

TAGORE

A considerable range of transient perceptual phenomena can be produced by hashish. Its peculiar effects on the sensorium, mood and thought processes are among the most fascinating topics of research in the field of Experimental Psychiatry.

This paper is intended to bring out some of the central features of the disorder without unduly stressing the implications or the wider issues arising from individual variations, important as they are in considering the problem as a whole.

However, before dealing with the psychophysiology of hashish intoxication, it may be of interest to touch briefly on the historical and socio-cultural roots of the problem.

Strictly speaking, and notwithstanding its "detrimental effect on the individual and on society"[1] the hashish habit cannot technically be called an addiction since it lacks three of the fundamental criteria of definition, i.e., it has no increased tolerance, no specific craving even with prolonged administration and finally no withdrawal symptoms following abstinence. This, however, is a minor technical point.

Important cultural, racial and constitutional factors predisposing to drug addiction have yet to be investigated, for whereas some countries in the Middle East act exclusively as producers and exporters (never consumers) others next door to them are evidently susceptible to drug abuse. The relation between alcohol and drugs must also be considered, for while experience abroad tends to be equivocal it is the opinion of some workers that under the restrictions imposed by Islamic Law, the urge, at least in some sub-cultures, to resort to alcohol as a reaction to stress, may be readily directed towards drugs if circumstances permit. This has been our clinical experience in a maritime population, and the possibility of alcoholic urge being transmuted into a craving for drugs is also real in my opinion in view of the strong psychological phantasies reflected in popular lore and in secular and Sufic poetry. It is, therefore, no wonder that in Arabic lexical and literary works, wine has been given over one hundred names; in fact the author of Hiliat AlKumayt, contributed to the collection of 130 names which, of course, is psychologically very significant.

In extant literature of the last ten centuries hashish has been mentioned by physicians, herbalists and plant geographers but the most remarkable non-medical reference is made casually by the historian Ibn Iyas.

This historian mentions in his chronicles "Badaii El Zoohoor Fie Wakaii El Doohoor" (The Unique flowers of the history of the ages), that in the year 922 A.H. the Nile, having failed to rise in due time, the Governor of the city made an appeal to the public to seek to evoke divine sympathy through prayer in Mosques and by refraining from hashish and wine for three

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[1] WHO Technical Report Series No. 116, pp. 9-10

days. The people evidently responded and after the third day the Nile began to rise. The later history of hashish has been confused by political and quasi-religious intentions and motives and its role in the rapid rise and perhaps equally rapid decline of certain alleged religious movements has been much exaggerated by Von Hammer.

In some parts of the Middle East, owing to peculiar historical and social legacies, the people have developed an unhealthy fatalistic attitude towards life, a state of lethargy coupled with an ardent desire for stimulation of any kind. It is in such communities that the urge for euphoric stimulation is greatest. The notion that once prevailed that hashish is initially resorted to as an aphrodisiac reflects this state of inhibition and apathy.

The phenomenon of addiction, as other social and psychological phenomena, has deep cultural roots and affinities which the research worker must be capable of identifying and assessing in relation to other factors. To illustrate this, the following example is interesting. We find, for instance, in Sudan, and among nomadic tribes in particular, that the child who steals from his home is more likely to be a delinquent than the one who steals from outside his home. The psychopathology of the two cases is quite different. Stealing from outside is a residual of old tribal practice which was socially esteemed in the past, but to steal from the home constitutes demoralisation.

Finally we should be aware of the impending changes of "cultural - psychological" patterns in our communities in response to the impact of contemporary social and economic patterns. We must be alive to what Siegerist has said that "Each change of cultural conditions has a definite repercussion on the diseases of the time."

PSYCHOPHYSIOLOGY OF HASHISH INTOXICATION[2]

A methodology of some form is desirable for a coherent approach to a subject of intrinsic incoherent nature and I propose for the purpose of

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[2] Extract from article by same author published in Sudan Med. Journal Vol. 1 No. 1, Jan. 1953

description alone - to make use of some familiar headings for the development of this theme. I admit, however, that such an approach - mechanistic as it is - will fail to establish the proper dynamic relationships between the various psychological events released by the intoxication.

Mood Changes

Euphoria and an increased sense of well-being are the earliest and the most constant changes. They are manifest shortly after smoking, tending to become more obtrusive as time goes on; occasionally developing into an ecstasy of an almost mystic intensity and proportion.

As the ecstasy heightens, utterance, gestures, bodily postures and mannerisms tend to become excessive, increasingly bizarre and anomalous. Their relation to the affective content is clear and they are obviously acted-out symbols and dramatisations of the mood and feelings of the moment.

In others, stupor-like reactions with or without catalepsy or posturising occurring uniformly or alternating with restlessness and hyperkinesia tend to supervene during phases of ecstasy.

Anxiety, depression, guilt or even panic are sometimes released as a primary response in people with or without any detectable anomaly of personality-structure and quite apart from any factors related to the intensity or duration of the intoxicant.

Thought Processes

The mental set is one of enhanced concreteness. Management and use of symbols is replaced by thinking in terms of images. Outer experience is apprehended in the form of visual images. They are evidently raised to sufficient intensity by a process of condensation analogous to dreams.

Paradoxically, some cases tend to exhibit abnormal tendency to concept formation. Their attitude becomes categorical and they tend to use concepts and symbols when the situation demands a concrete outlook.

These changes in mental set form the background of the humorous and witty productions common in the utterance of the addicts.

Perceptual Disturbances

Hallucinations are very common under hashish. In the early phases they are simple and appear to arise on an illusionary basis. Their affective quality is commonly amusing and highly entertaining.

With eyes shut, after-images of eidolic nature are readily evoked. They are intense and vivid and may be positive or negative. Frequently they are enveloped in brilliant and dazzling colours. Other phantoms may, however, appear in the form of mosaics, lattice designs and geometrical figures under a wide range of colours and hues and exhibiting all sorts of movements involving wholes or parts.

Highly structured hallucinations are not so common. Their content is frequently chaotic and have the essential features of dreams. In a few cases they recur in stereotyped fashion and when they do so analysis of content often reveals their nature as condensations sublimations and symbolizations of some overwhelming life experience. Tactile or gustatory hallucinations of a less obtrusive nature may occur. Synesthesiae occur in a very small percentage of cases. They are exclusively evoked by sound. They are visual and take various forms of rapidly changing kaleidoscopic patterns of vivid colours. Occasionally synesthesiae of erotic or gustatory nature may ensue.

Disorder of Time-Sense

The appreciation of the passage of time within the individual is a highly complicated process involving among other things the application of standards from memory. Concepts of the past, present or future and the appreciation that an event has occurred before simultaneously with or following another event is a highly integrated function of perception and memory.

Illusions of time sense met with in hashish intoxication are very complex and involve its qualitative and quantitave aspects. Passage of time may be perceived as exceedingly quick or markedly slow, or the subject may

feel as if time has come to a halt or that experience has become completely timeless. Others describe queer illusions of reversal of time or of accesses of a curious cogwheel rythm affecting its stream.

More complex disturbances occur at the height of intoxication. The ability to abstract an event from its context and to perceive it as an isolated entity of the present in relation to time experience is frequently deranged. Hence it is found that there is inability to actualize the present which is projected into the past with the production of a Deja Vu.

Disorder of Space

Objects and figures are derealised. They may appear larger or smaller than their real size. They are quite near or farther away than normal. Their spatial qualities may be disturbed. Perpendicular objects may be perceived as curved. Tridimential objects may appear flat and vice versa. Stationary objects may appear in motion. They may oscillate, recede or draw near to the observer.

Natural colour may be retained or objects may acquire colours of different types.

Personalisation

Distortion of body-schema may happen. Confusion of right and left with or without autotopagnosia may occur.

Occasionally, phantom limbs may erupt in the shape of accessory hands or horns. They sometimes have a clearly manifest or slightly disguised symbolic meaning.

Illusions of the head growing larger or smaller, limbs elongated or shortened are described and they similarly give expression to inner attitudes and trends.

Erotic Effect

Erotic visions develop spontaneously or rarely in response to synesthesiae. Potency is increased at the outset. Time disorder enhances the illusion

that orgasm is maintained for hours or days. Disturbance of body image may affect the penis, and its size may be felt to increase in diameter and length.

Summary

A descriptive account of common features of hashish has been given and its effects on mentation have been described; order and relationship of symptoms to constitution and particularly to imagery have not been dealt with.

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DRUG ADDICTION

B. OPIUM ADDICTION CONTROL IN IRAN

by

Dr. W. F. Ossenfort
WHO Consultant

1. October 7, 1955 is a significant date in the history of Iran. On that date the Anti-opium Law was enacted. Prior to that date the growing, cultivation and harvest of opium was a significant feature of the economy of the country. For many who lived in Iran the smoking of opium was a significant feature of their cultural pattern. Twenty-five thousand hectares of fertilized irrigated land were devoted to opium production. The production approached 1,000 tons a year. Only about 90 tons were exported so there was really a lot of opium consumed by the population of the country. Some of this was used as medicine in the treatment of illness involving pain and discomfort. Many Iranians used opium at regular or irregular intervals even though they were not suffering from acute or chronic pain and discomfort, and its use by this group may well have been regarded as an accepted social custom. There was no restriction on the use of opium. It is not to be inferred that the whole population smoked opium but those who cared to smoke did so.

2. It is of interest that the most liberal of estimates is that about a million and a half persons were addicted to opium. If one assumes that this is a reasonably accurate figure one asks why less than one in ten.

became an addict and the other nine did not. It is my personal view that the ratio was probably nearer one in a hundred. If so, why did the one become an addict and the ninety-nine did not? It seems that most individuals are not particularly prone to addiction but that some have a very strong proneness to use opium because of what it does for them. These will be called the addiction-prone. The average person does not stay with opium even though there are repeated experiences with the drug but the person who is addiction-prone finds a genuine satisfaction in repeated use of the drug. Many addicts have told me that the drug is a perfect answer for them. Unfortunately, the person who uses opium soon finds that he has become enslaved to a point where he must have the drug regularly and that if he does not he becomes ill. It is generally agreed that addiction to opium has undoubted disadvantages and that such addiction all too often handicaps the individual, not to mention its obviously detrimental effect to the society and the community.

3. The addict is not a vicious character. He does not suffer moral deterioration or become an anti-social and criminal individual as a direct result of the drug. The pathology incident to opium use has not been demonstrated to date. The majority view is that opium should be restricted to medical needs recognized by and prescribed for by physicians. The minority view held by the addiction-prone does not agree with this. Regulation by law is the standard method of resolving this difference of views. Of course when a law is passed restricting opium use and the addict continues to use opium without prescription he does so in violation of law. The majority of addicts cannot be controlled unless there is some legal provision. Their addiction proneness is too strong to yield to the well meant advice of physicians. The management of addiction is a health problem but the doctor needs some support of law.

4. The Minister of Health of Iran recognized addiction to opium as a medical problem and proceeded to crystallize the growing idea that an opium control law should be enacted. The law when passed provided for an immediate

ban on opium production and established measures regulating the importation of opium. It is significant that the law placed the responsibility for treatment of addicts in the Ministry of Health.

5. The ban on opium production was from the very beginning remarkably effectively enforced and some progress was made on cutting down the amount of smuggling of opium into Iran from the outside. The many thousands of persons who were addicted to opium who applied voluntarily at the Ministry of Health received treatment which was adequate and correct. Most of the patients were treated without admitting then to a special hospital but many were treated in general hospitals and in certain improvised establishments. The largest of the latter was at Mehran Gardens in Teheran.

6. Dr. Hassan Azarakhch, Head of Mehran Garden institution, framed the basic instructions for all other facilities of the Ministry of Health throughout Iran. In the earlier days at Mehran Gardens as many as eight hundred patients were under treatment at a time. By September 1957 the need for Mehran Gardens had decreased to a point where there were less than forty patients in residence. The method of treatment was essentially one of rapid reduction using opium pills for in-patients and out-patients and later on Methadon in place of opium for all in-patients. All patients were given enough opium or Methadon to control symptoms for the first day or so. The drug was then reduced as rapidly as possible over a period of one to three weeks. Most of the patients gained weight during this period. None of them died as a result of too rapid reduction. Very few patients relapsed to the use of opium to the extent that they applied again for treatment. Those who did relapse and return for treatment were of course treated again.

7. Smoking eight grams a day is considered roughly equivalent to eight tenths of a gram by mouth. Eight tenths of a gram of opium contains roughly eight hundredths of a gram of morphine. This amount of morphine taken regularly then suddenly discontinued results in only a relatively mild illness. This fact may well account to some extent for the overall success

in management of the addicts treated in Iran. Another feature important to the success of the programme was that treatment was on a voluntary basis.

8. The programme in the larger population concentrations in Iran outside Teheran was carried out by a physician appointed by the Ministry of Health or under his direct supervision. Here too, voluntary admission prevailed.

9. The foregoing sets forth in some detail the activity in Iran. The total accomplishments to date are most significant. Poppy culture has been stopped. Smuggling has been controlled to the point where contraband opium costs about forty times that of opium available before the enactment of control legislation The number of addicts has been reduced by more than eighty per cent. With continued operation of the programme it is not unlikely that opium addiction in Iran will shortly be even further reduced. The accomplishments of Iran to date serve as an excellent example of what can be done by a country that makes a sincere and continuing effort.

10. One of the most striking effects of the opium control programme in Iran has been the marked reduction in numbers of cases of acute opium poisoning with suicidal intent. In one city suicidal attempts by opium were at the rate of four a week. Now the rate is one per month. In another the rate was three per day. Now it is one per week. And what is even more interesting is that there has not been a shift to other methods of suicide.

11. With decrease in opium use by a large group of individuals one would expect a somewhat balancing increase in alcohol over-indulgence. That has not taken place in Iran. During my five months in Iran I did not see one drunken person.

12. While further reduction of addiction in Iran is expected there is doubt that complete eradication will ever take place. The less severe addiction-prone will not return to opium and there will probably be no new cases among this group. The more markedly addiction-prone will no doubt continue to use opium one way or another. Some may proceed to use injectable opium products even if they have to patronize the black market to obtain their drug.

To protect this relatively small group it will be necessary to continue vigilance in the matter of clandestine poppy culture and in the matter of prevention of smuggling. Absolute control of these two features is definitely in support of the medical features of the programme. It is hoped that addiction in Iran will always be considered a medical problem and that medical authorities will not accomplish an about-face and become punitively minded toward the addict. In future years addicts will become less in number but the individuals will be more difficult to treat. End results will not be uniformly successful. These events if they occur will not warrant more severe punishment with longer minimum sentences. When institutionalization is necessary the length of stay should be completely flexible and at the discretion of the sentencing authority and better still at the discretion of the doctor in charge of the case. The programme in Iran may need to be revised at a later date to include a prolonged period of specialized hospitalization followed by post-institutional care including social service and follow-up medical care. The World Health Organization project wherein two experienced physicians in Iran will study treatment programmes in other countries will certainly be helpful in such revision if it becomes necessary.

13. Addiction in the United States has received the attention of the medical profession and the public for nearly half a century(1). Much progress has been made. The total number of addicts has been reduced by more than eighty per cent during the period when the total population almost doubled. Current estimates are that there is about one addict per three thousand of population. The addicts seem now largely to be from minority groups living in areas that supply much deliquency and much mental illness. Nearly all of the addicts use heroin and use that drug intravenously. Heroin is available only in the black market and cost is high. The cost is so high that many addicts engage in crime against property: shoplifting, breaking and entering, theft, etc. to obtain the funds needed.

14. Two large Federal hospitals have now been in operation for about twenty years as special facilities for treating convicted addicts, voluntarily admitted addicts, and conducting research. These have been successful in thousands of cases but all too many thousands of cases have relapsed to addiction. Some have become addicted to the barbiturates or opiates and barbiturates.

15. There is still disagreement in views toward the addict(2). More stringent laws have been passed. Minimum sentences have been invoked. A person convicted a third time for possessing narcotics must be sentenced to not less than ten years nor more than forty years. Sale of heroin to a person under eighteen years of age receives ten years to life and at option of the jury may receive the death penalty.

16. Addiction in Western European countries is not considered to be a major problem. In England there are only about three hundred addicts. These are managed primarily as medical problems. A few are actually maintained on narcotics when the physician finds that "it has been demonstrated that the patient, while capable of leading a useful and normal life when a certain dose is regularly administered, becomes incapable of this when the drug is entirely discontinued"(1) The quotation is from the actual wording for the law and its application is left to the professional judgment of the physician handling the case.

17. In England and in the United States the use of tranquilizers has become rather widespread. These drugs serve a need in many patients but are not without danger. Meprobamate and also Doriden have been found to be addicting in a manner not too unlike that of barbiturates. The search for a perfectly safe tranquilizer continues.

18. The world is better off as control of opium, the excellent but not safe tranquilizer, is extended. However, control of anxiety is an important drive

in many people. In them the quest for tranquility continues, and their burden will be lessened when and if the effective and perfectly safe tranquilizer is discovered and doctors learn how and when to prescribe it.

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