CHRONIC ALCOHOLISM

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Introduction

ALCOHOL is now known as one of the most widely used drugs in the world. It has been stated that one person in sixteen who drinks alcohol under modern conditions of stress progresses to continuous excessive consumption and finally to ALCOHOLISM. The adverse effects of alcohol on psychomotor performance in relation to flying is well established.

Statistics about alcoholism in relation to flying in India are not available. However, existence of alcoholism amongst personnel actively associated with flying is common knowledge. Many examples of aircrew suffering from alcohol addiction, both military as well as civil, are available. In this context a study carried out in USA by Ryan & Muhler (1972) is relevant. In 1971 a new rule on alcohol and flying was introduced in the United States by which it became mandatory for the pilots to observe 8 hrs "bottle-to-throttle" abstinence. Comparative analysis of flying accident rates—before and after 1971 has indicated that this rule appears to be exercising beneficial effect amongst pilots who may be termed as "SOCIAL DRINKERS" but not so on hardcore "CHRONIC ALCOHOLIC."

Definition

The most widely used definition is that proposed by WHO :—" Alcoholics are those excessive drinkers whose dependence upon alcohol has attained such a degree that it shows a noticeable mental disturbance or an interference with their bodily and mental health, their inter-personal relations and their smooth social and economic functioning or who show the prodromal signs of such developments. They therefore require treatment."

Pathogenesis

The current views on the pathogenesis of alcoholism are briefly summarised below :—

(FRANCO's) Profile of Alcoholism	(JELLNEK's) Types of Alcoholism
Social drinking	Alpha (Psychological basis ; may go into Gamma)
Dependant drinking	Beta (End up in physical disorders)
Pre-alcoholic	
Problem drinker	Gamma } Pharmacological basis
Alcoholic	Delta }
Chronic alcoholic	
Organic deterioration	Epsilon—Dipsomania

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Recognition of the early alcoholic is vital. From practical stand point, the important features of the profile of alcoholism are the following :—

(a) Consumption of alcohol starts as "SOCIAL DRINKING" and ends up in "CHRONIC ALCOHOLISM".

(b) Progressively larger quantities are consumed as the time goes by.

(c) Compulsion and craving for drinks become greater.

(d) Giving up drinking becomes difficult/impossible.

Signs and Symptoms

(*a*) Conjunctival engorgement.

(*b*) Puffiness of face.

(*c*) In fair skinned—Flushing ending up in "Whisky nose".

(*d*) Hoarseness of voice due to laryngeal-oedema.

(*e*) Gastritis—Loss of appetite, nausea, vomiting.

(*f*) Tremors

(*g*) Cirrhosis of liver and other organic derangements.

At times the alcoholic may present himself due to withdrawal symptoms which are :—

(*a*) Severe anxiety with motor hyper activity.

(*b*) Insomnia.

(*c*) Inability to concentrate, depression, guilt feeling.

(*d*) Diarrhoea, nausea, vomiting, dehydration.

(*e*) Hallucination.

(*f*) Delirium tremens.

Detection of Alcoholics

Vast majority of alcoholics try to keep their addiction hidden making it difficult for the attending doctor to recognise alcoholism. It has been stated (Glatt 1971) that an average practitioner may fail to diagnose nine out of ten alcoholics in his practice. This, however, may not be quite true so far as armed forces are concerned. Some times alcoholics may be brought to the physician due to "Withdrawal symptoms", and **not Intoxication.**

Prognosis

With the introduction of the concept of Institutional treatment aided by organisations such as Alcoholic Anonymous (AA) and the availability of better therapeutic drugs, the prognosis in respect of Chronic alcoholism, has changed from despair to that of hope. Cure, in the sense that a choronic alcoholic, after treatment, returns to "normal" drinking instead of "excessive drinking", is rare. A number of reports claim that alcoholics have managed to resume "normal drinking. Majority of experts the world over, however, state that they have hardly ever encountered such patients. The current consensus of medical opinion seems to be that for achieving a lasting cure the alcoholic must abstain from drinking totally. Recovery from of alcoholism, when total abstinence is ensured, is possible in a considerable number of patients.

Notwithstanding this optimistic outlook, making a decision whether or not to allow a chronic alcoholic to fly as an aircrew is very difficult. There is the example of a fatal flying accident which occured a couple of years ago. A civil pilot Instructor was privately treated for chronic alcoholism and having considered being cured of the disease, went back to instructional flying duties. He went into a relapse, indulged in a drinking bout along with the students just before a training flight and soon afterwards met with a fatal flying accident which was established to be due to alcoholic intoxication. Examples such as this lead one to the view that it would be too risky to allow a chronic alcoholic to return to flying duties and therefore prognosis of chronic alcoholics from this point of view remains unsatisfactory.

Conclusions

The steady mental and physical deterioration which results from continuous long-term addiction to alcohol is well known. It is also well known that mixing up of alcohol with flying could be

disastrous. Social drinking amongst those associated with flying is common. Some of them gradually get addicted to the bottle and in a few years become chronic alcoholics. There should never be any question of any one serving in the Armed Forces reaching this stage without someone in authority having taken appropriate action at some intermediate stage. Further difficulty with chronic alcoholism is that relapses even after a cure are not uncommon. It would, therefore, be too risky to allow such individuals to perform flying duties. Besides this, in service, more often than not, once a person is diagnosed as a chronic alcoholic, he is invalided out. The only sensible approach to the problem would be to prevent "social drinking" to get out of hands so that it is not allowed to become an addiction.

In this, the Station/Squadron Medical Officers can play a key role. Their scientific knowledge about the problem, personal rapport with those in authority and the personnel under their professional care, their relationship with family and friends of the individual, tactful, human and sympathetic approach and certain amount of vigilance can prevent many a young "social drinker" from becoming "chronic alcoholic". This will not only promote flight safety but also prevent loss of highly trained man-power.

REFERENCES:

1. GLATT, MM: Alcoholism, Progress in Clinical Medicine, ed. Daley and Miller, 6th edition, 1971 Churchil. 522-539.
2. HAVARD, JOHN: The Alcohols, Gradwohl's Legal Medicine, ed. Camps, FE, 2nd edition, 1966 Johan Wright & Sons Ltd., Bristol, 553-565.
3. JAMES WILLIS: Addicts, Drugs & Alcohol Reexamined, Pitman Publishing, 1st edition, 1973.
4. RITSON, B and HASSELL, C (1970): The Management of Alcoholism, E & S Livingston, Edinborough and London.
5. ROCHE LABORATORIES COMPILATION (1963): Aspects of Alcoholism, J. B. Lippincott Company, USA.
6. RYAN, L.C. and MOHLER, S.R.: Intoxicating Liquor and the General Aviation pilot, Aero Space Medicine, 43:1024-26, 1972.