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IDENTIFICATION OF ALCOHOLISM IN A MEDICAL OFFICE
DIAGNOSTIC SETTING

Barton Pakull, M.D., Chief Psychiatrist

Diagnosis of Alcoholism in Airmen

The diagnosis of alcoholism in an aviation medical examination setting, where the individual has more than one reason to want to deny the existence of symptoms related to the condition, presents the examining physician with a difficult challenge. Questions about how much one drinks, the pattern of doing so, and the types of beverages consumed are usually answered in a misleading manner by alcoholics before they have been rehabilitated. However, it is necessary to ask and record the answers if one suspects that a drinking problem exists. There may be no complaints offered by the applicant, and very few physical signs or laboratory findings associated with an alcoholic condition. Often, an alcoholic presents with a variety of medical problems that do not necessarily suggest that alcoholism is present. These medical problems can be either chronic or acute, but because they are not usually specific indicators, are difficult to associate with alcoholism. The purpose of this paper is to give the examining physician some practical guidelines to be used to diagnose alcoholism no matter what the signs or symptoms may be.

Definition

A practical working definition of alcoholism is that it is a condition where loss of control over the consumption of the substance (alcohol) is accompanied by various deleterious effects on physical health as well as personal or social functioning. Personal and social functioning includes such diverse areas of life as legal and financial matters, marital and family adjustment, and personal productivity, including occupation and education. Most important, we would expect to see deleterious effects on safety, both personal and occupational. This includes skilled performance tasks as well as normal social activities.

Manifestations of Physical Dependence

One of the most obvious symptoms of a developing alcoholism condition is tolerance. Alcohol is a sedative drug. If an examinee is still on his feet after having consumed an amount of alcohol which would have sedated a normal person, then that person has developed tolerance. While reports of the amounts a person may drink are often unreliable, certainly any finding of a blood alcohol level greater than .2 percent at any time, is indicative of the development of some tolerance. A blood alcohol level of .25 percent or above, is very strong evidence of the tolerance associated with alcoholism.

The development of tolerance eventually leads to the development of signs and symptoms of withdrawal. Alcohol withdrawal signs often begin as soon as 4 to 6 hours after discontinuing ethanol intake. The most common sign of withdrawal is morning tremulousness. Associated with morning tremors is morning drinking, which simply means that the patient is treating his withdrawal symptoms with another dose of a sedative drug. A frequent symptom associated with early withdrawal is insomnia. This is most often seen in depression so that sometimes the presence of an alcoholism problem is missed. Other early symptoms of withdrawal are irritability, restlessness, apprehension, and mild difficulties with concentration. A history of isolated grand mal convulsions strongly suggests alcohol withdrawal, especially when there are other symptoms of early withdrawal and a negative EEG after the seizure. The development of a full withdrawal syndrome with disorientation, hallucinations, and a pronounced coarse tremor with a rapid pulse and diaphoresis is conclusive evidence of alcohol addiction.

Common Presenting Signs and Symptoms

The odor of alcohol on the breath of an applicant, especially if the examination is done in the morning, should lead the physician to question the examinee very closely about his or her drinking recently and in general. It may be appropriate to request that the applicant voluntarily submit to a blood alcohol determination as a means of determining exactly how much drinking has been done. Any amount of alcohol in the system at the time of a routine physical examination should make the examiner suspicious of the presence of an alcoholism problem, especially if the examination was done in the morning.

Another very common symptom of alcoholism is the blackout. This occurs when the individual becomes intoxicated and though seeming to be functioning normally, he or she will be unable to remember all or part of what happened after a certain point. These are obviously frightening experiences. If a person can control his or her drinking, he or she would not allow more than one blackout to happen. Therefore, if a history of more than one blackout is given, an alcoholism problem should be suspected.

Family, Legal, and Employment Problems

Investigation of the family and marital history and social life is very valuable. When there are divorces or separations related to alcohol consumption, when there are arguments and/or physical abuse while drinking, when there are family outings or social activities cancelled or curtailed related to drinking, there is evidence of the adverse effect of alcohol consumption on family relationships, and this is a major indication of alcoholism.

Alcoholics will tend to have legal and social problems such as drunk driving (DUI), or public intoxication arrests, and fights while intoxicated. Even without other evidence of alcohol abuse, two DUI's within a short period of time (e.g., 4 years), or multiple DUI's over a long period of time are highly indicative of alcoholism. Alcoholics will also admit to losing or changing friends, and to socially inappropriate and embarrassing behavior related to their drinking.

Alcoholism has an adverse effect on employment. Individuals with alcoholism problems frequently have a history of job loss or a pattern of job changes attributable to alcohol drinking. Employed individuals with alcoholism problems use inordinate amounts of sick leave. There is often a pattern of lateness and a tendency for absences on a Monday after a weekend off. They often have unauthorized absences during the work day and frequent long lunches. They fail to meet deadlines or prearranged appointments and manifest gross lapses in judgment and conduct, especially during business trips. Most importantly, alcoholics tend to have accidents on the job. Even if an individual is self-employed, there may be evidence of deterioration in performance or neglect of responsibilities that others will relate to drinking. Such alcoholics will eventually show poor business judgment with resultant business reverses and financial losses.

Emotional and Medical Problems

People with alcoholism have emotional difficulties and may therefore mask their alcoholism with symptom/complaints of depression and anxiety. A common indicator of an alcoholism problem is the observation by others of a personality change when drinking. This usually means that the individual becomes irritable and harder to get along with when drinking, sometimes even verbally or physically abusive. Alcoholics often point to stresses in their lives to explain their anxiety and depression. Careful scrutiny will often reveal that it is the consequences of their drinking that cause the so-called stresses in their lives.

It is important to get the pertinent records when any information about inpatient or outpatient treatment for so-called emotional problems is revealed. This also includes such things as contact with therapists or social agencies related to marital problems. Although many people seek counseling for temporary adjustment problems that are unrelated to aviation safety issues, sometimes those records indicate the presence of alcohol abuse problems or reveal that there was treatment for alcoholism.

The medical symptoms and signs associated with alcoholism are many and varied. The most common gross pathology is damage to the liver. It should also be kept in mind that pancreatitis is a medical problem that may be secondary to, or complicated by, alcoholism. Any indication of liver damage such as elevation of liver enzyme levels, even if temporary, which may be related to drinking, is to be considered a primary sign of the adverse effect on physical health related to alcoholism. Elevated blood pressure is

a common finding in heavy drinkers. Although common also in nondrinkers, it is noteworthy that when a heavy drinker stops drinking his or her blood pressure often comes down. Acute gastritis is commonly associated with the heavy drinking of alcoholism. Arrhythmias and other cardiac symptoms associated with alcoholic myopathy also occur. Alcohol is known to suppress bone marrow responses resulting in hematological problems. The most common sign of this is an increased Mean Corpuscular Volume (MCV). Often, there will be a history of frequent injuries resulting from accidents that occur during intoxication. Therefore, any history of injuries should be carefully reviewed. It should not be forgotten that the tolerance associated with alcoholism leads to a cross tolerance with other sedatives so that we often find that individuals with an alcoholism problem require more anesthesia for surgery and more sedatives than a normal person in order to obtain a therapeutic effect.

Dealing with the Alcoholic

Because of the denial typical of alcoholics, it is very difficult to confront such an individual. One must expect to face extreme hostility, rationalization, and manipulative attempts to avoid either facing the fact that there is an alcohol problem or entering into treatment to do something about it. It is extremely useful to have available a "significant other" who can supply truthful and accurate information about the factors we have enumerated and, therefore, enable the examiner to make the correct determination. Such a person (or persons) can also help to break down the denial and allow the alcoholic to accept treatment. The only important exception to this is when that person is also an alcoholic or is a co-alcoholic, who for his or her own reasons supports the alcoholic's denial.

To determine that an alcoholism condition exists with respect to Federal Aviation Regulations, substantial documenting evidence must exist. However, in those cases where there is reason to believe that the applicant is excessively consuming alcohol, but a clear cut diagnosis cannot be made, deferral of certification is appropriate. Under these circumstances, the Federal Aviation Administration will gather such additional information as may be necessary to establish or disprove the diagnosis.