ALCOHOLISM

I. The abuse of alcohol is an exceedingly common phenomenon. This drug has ubiquitous effects on the body and causes such diverse problems in the funcitoning of the central nervous system that it would be possible to teach an entire course of General Psychiatry around the differentail diagnoses of various alcoholic pictures.

II. DEFINITIONS. The numerous definitions for alcoholism overlap greatly. We will discuss here the three most frequently used paradigms along with reasons for accepting or rejecting each.

A. QUANTITY-FREQUENCY. It would be difficult to use a Gaussian curve of drinking practices in the population to pick out where alcoholism begins. One reason is that alcohol impairs memory at high blood levels making it impossible for even the most honest individual to correctly report his drinking patterns at times of heavy intake. In addition, there is a huge difference between individuals on the amount of alcohol they can imbibe before symptoms begin to appear.

B. ADDICTION. Addiction to any substance carries the properties of tolerance (the need for increasing doses to get the same effects), physical dependence (the development of a physical withdrawal syndrome), and psychological dependence (a craving or inability to be comfortable without the drug). I reject psychological dependence as a criterion because it is a very subjective phenomenon.

Physical dependence (a definite sign of alcoholism no matter whose definition is being used) is a late sign of problems and occurs somewhat unpredictably; only about 10% of subjects from a Skid Road area who entered Boston City Hospital's Alcohol Unit developed serious and severe evidence of physical dependence.

C. SOCIAL CONSEQUENCES. This definition is used because it is the most objective and because it fits in with the usual thrust of psychiatry of dealing with individuals who are having life problems. For research, alcoholism is defined by the presence of severe life problems in any one major life area of family, police, health, or job. This definition parallels that given by the National Council on Alcoholism and the World Health Organization. Individuals meeting this criteria for alcoholism will also be heavy drinkers by the quantity frequency index and have a fair chance of demonstrating physical dependence.

III. DIFFERENTIAL DIAGNOSIS. It is possible to view alcoholism in some cases as a symptom and in others as a disorder (disease or syndrome) - just as it is possible to view pneumonia as a symptom of heart failure or as the disease pneumococcal pneumonia. The disease alcoholism is called primary - occurring in the absence of any pre-existing psychiatric illness; the symptom alcoholism is called secondary - occurring after

another pre-existing psychiatric illness has begun. Because alcoholism itself can mimic most other psychiatric disorders, the distinction between primary and secondary alcoholism is based on the chronological development of symptoms - the distinction cannot be established by the way the patient looks at any one point in time.

The two most common psychiatric disorders to which alcoholism is secondary are primary affective disorder and sociopathy (as defined by Feighner). In both instances, alcoholism is felt to be a symptom of the underlying disorder: in affective disorder secondary alcoholism the patient carries an extremely good prognosis while in sociopathic alcoholism, the patient carries a poor prognosis.

It is possible to confuse the diagnosis of alcoholism with a number of other psychiatric syndromes. When the alcoholic presents with delusions (alcoholic paranoia) or auditory hallucinations (alcoholic hallucinosis) he may erroneously be labeled schizophrenic. When an alcoholic comes to his physician complaining of physiologic problems and weakness he may be erroneously labeled as an anxiety neurotic, etc. The correct differential diagnosis between all of these syndromes is made on the chronologic development of symptoms.

IV. EPIDEMIOLOGY. The pattern of drinkers in the general population is very different than the pattern of alcoholics. The percentage of the population who drink is higher for males, younger

individuals, higher socio-economic status persons, and Jews or Italians; the rate of alcoholism is highest for men over 40, from lower socio-economic backgrounds, with low educations, protestant or Irish Catholic. Probably 10% of the adult male population are alcoholic with higher figures for men in lower socio-economic strata. If one wished to find a group at exceptionally high risk for the diagnosis of alcoholism, it would be best to look on a medical or surgical floor of a hospital - somewhere between 20 to 35% of the average medical or surgical patients in both private and public hospitals qualify for the diagnosis of alcoholism.

V. PHARMACOLOGY. In the short period of time available in this course, I will not discuss the specific pharmacology of alcohol. A good reference for this is Becker, C. 1974 and the Kissin edited text. As will be discussed below under natural history, its effects on the body are ubiquitous.

VI. RECOGNITION OF THE DISORDER. For a number of reasons (including inadequate teaching about alcoholism in Medical School, the frustrations in handling the alcoholic patient and the fear about ones own drinking problems) physicians are not astute at diagnosing alcoholism. To establish the presence of the problem the index of suspicion must be high - considering the fact that up to a third of one's male patients might be alcoholic the index of suspicion should always be high. A brief

overview of drinking patterns and drinking problems should be asked each patient no matter what their presenting symptom. One should be especially careful with patients who show anemia, high uric acid, high blood pressure, repeated infections, liver failure, or pancreatitis.

VII. THE NATURAL HISTORY OF ALCOHOLISM. While secondary alcoholics run a course heavily influenced by their first appearing psychiatric disorder, there are some generalizations that can be made about primary alcoholic men or women. The onset of drinking is, of course, in the teens and it is probably not until the mid to late twenties that one can tell for sure that the patient is an alcoholic. Life problems (in the four diagnostic areas of family, police, health and job) begin in the thirties and the individual will probably seek treatment (if ever) around age forty. The average alcoholic will die fifteen years younger than the general population with his leading causes of death accidents, suicide (anywhere from 10 to 20% of alcoholics die by suicide), heart disease (with high blood pressure and high cholesterol), infections - including pneumonias, cirrhosis (only 10% of alcoholics have cirrhosis) and pancreatitis. Depending on the social stability (job, family, general life problems) anywhere from 30 to 70% of alcoholics will recover even without treatment.

ALCOHOLISM (cont'd)

Alcohol adversely affects all body systems. The following is an abbreviated overview of alcoholic morbid pictures by body systems:

1. Blood producing--decreased production of white and red blood cells, platelets, and clotting factors along with abnormal and inefficient white cells.
2. Circulatory--increased rates of atheroslerosis and myocarditis.
3. Gastrointestinal--fatty liver/alcoholic hepatitis/ cirrhosis, pancreatitis, gastritis, increased rates of cancers.
4. Genital-urinary--testicular atrophy, increased rates of infection.
5. Respiratory-emphysema and cancer (probably related to the close intercorrelation between alcoholism and heavy smoking).
6. Musculo-skeletal--myositis (which can result in ATN due to the rapid release of myoglobin) and frequent fractures.
7. Nervous system--increased demand for and decreased amount of vitamins (especially thiamine) lead to neurologic syndromes such as Wernicke-Korsakoff's, along with alcoholic dementia, chronic brain syndrome, peripheral neuropathy.

VIII. TREATMENT.

A. WITHDRAWAL. The withdrawal syndrome involves a combination of any number of factors including shakes, convulsions, autonomic nervous system dysfunction, visual or tactile hallucinations, and an organic brain syndrome. Delerium Tremens (by definition) includes shakes, delerium, visual hallucinations, and confusion. The most effective treatment is begun before the organic brain syndrome sets on and involves using any of a wide variety of drugs with cross-tolerance to alcohol--the individual is intoxicated with the new drug and withdrawn from that new drug at a rate of 20% per day. The average patient would receive chlordiazepoxide (Librium) in doses of about 250 to 500 mgs. per day which is withdrawn over five days. In addititon, a thorough physical examination and vitamin replacement--especially thiamine - are required.

B. REHABILITATION. Because of the high rate of spontaneous remission, the efficacy of rehabilitation efforts can only be understood as part of controlled studies.
Almost every mode of therapy has been used in alcoholic rehabilitation including LSD, metronidazole (Flagyl), psychoanalysis, group therapy, hypnosis, etc. Based on the precept FIRST DO NO HARM, most alcohol treatment programs use the following regime:

ALCOHOLISM (cont'd)

Detoxication followed by group therapy, Alcoholics Anonymous, good physical care, job and home placement efforts and antabuse. There is no evidence that continued inpatient rehabilitation efforts are superior to outpatient therapy once detoxification is completed.

TABLE 1-1

DRUG CLASSIFICATION

Class	Some Examples
(General CNS) Depressants	Alcohol, Hypnotics, Antianxiety Drugs
CNS Sympathomimetic or Stimulants	Amphetamine, Methylphenidate, Cocaine, Weight Loss Products
Opiates	Herion, Morphine, Methadone, Propoxyphene
Cannabinols	Marijuana, Hashish
Psychedelics or Hallucinogens	LSD, Mescaline, Psilocybin
Solvents	Aerosol Sprays, Glue, Toluene, Gasoline, Paint Thinner
Over-the-Counter	Contain: Atropine, Scopalamine, Antihistamines
Others	Phencyclidine (PCP) Bromides

TABLE 1-3

MOST CLINICALLY SIGNIFICANT DRUG PROBLEMS BY CLASS

	Panic	Flashbacks	Toxic	Psychosis	OBS	Withdrawal
DEPRESSANTS	-	-	++	++	++	++
STIMULANTS	+	-	+	++	+	+
OPIATES	-	-	++	-	+	++
CANNABINOLS	+	+	+	-	+	-
HALLUCINOGENS	++	++	+	+	+	-
SOLVENTS	-	-	+	-	++	-
PHENCYCLIDINE	+	?	++	++	++	?