

Alcohol Intoxication and Homoeopathy - A Review

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ABSTRACT

In today's modern world the occasional use of alcohol has slowly transformed into a traditional habit that is gradually leading to addiction. In previous days abuse of alcohol was found only in adults but now it is being identified in even the younger age groups which is leading to many psychosocial and physical ailments. Alcohol abuse disorders, especially alcohol intoxication is the most prominent and acute ailments found in today's world. Homeopathy is a holistic system of medicine that is showing good results in treating cases of alcohol intoxication and other disorders related to alcohol abuse and thus this study is done to reflect the same.

Keywords: Alcohol intoxication, alcohol abuse, Homeopathy

INTRODUCTION

Alcoholism was once a term that was frequently used in medical writing. It originally appeared in the famous article "Alcoholismus Chronicus" (1849) by the Swedish doctor Magnus Huss.¹ Even though the word is still often used in common speech, it is inadequate as a technical term because it has multiple meanings. It can apply to routine alcohol use that is regarded as excessive in quantity based on some alternative criteria, and it can also relate to any harm that results from such excessive use on a mental, physical, or social level. In a more precise meaning, alcoholism may refer to a particular disease condition that is seen to call for medical attention.²

Definition: al-co-hol-ism (al'ka-hol-iz-am) is a disorder marked by a pathological pattern of alcohol use that causes serious impairment in social or occupational functioning. It includes both alcohol abuse and alcohol dependence.³

More than 200 diseases and injuries are caused by the inappropriate use of alcohol. Around 3 million deaths are caused by alcohol abuse worldwide each year. 5.3% of all deaths were caused by alcohol. According to disability-adjusted life years, alcohol contributes approximately 5.1% of the world's disease and injury burden (DALYs). Approximately 13.5% of all deaths among adults between the ages of 20 and 39 are related to drinking. Harmful alcohol usage has been linked to a variety of mental and behavioral disorders, other non-communicable diseases, and injuries.⁴ In India, the prevalence of AUDs (alcohol use disorders) over 12 months in 2010 was 2.6%, while the prevalence of alcohol dependence was 2.1%. In 2012, driving while intoxicated was a factor in 33.1% of all fatal traffic accidents. According to the National Mental Health Survey of India 2015–16, 9% of adult men have AUDs. Alcohol was shown to be responsible for 5.4% of all-cause deaths in India. Alcohol usage was to blame for about 62.9% of all liver cirrhosis-related deaths.⁵

Alcohol intoxication occurs when the quantity of alcohol (ethanol) consumed exceeds one's tolerance for the substance, with consequent impairment of the

individual's mental and physical functional status.⁶ Alcohol intoxication, also referred to as alcohol poisoning. It is the unpleasant behavioral and physiological effects brought on by recent alcohol intake.⁷

After two or more alcoholic drinks, alcohol intoxication usually sets in. Having an impulsive nature and being in a culture where heavy drinking is widespread are risk factors. A person is said to be intoxicated by alcohol if the BAC > 5.4-7.4 mmol/L⁸

Classification of alcohol intoxication under DSM5 (Diagnostic and Statistical Manual of Mental Disorders) And ICD-10 (International Classification of Diseases):

Under the category of substance-related and addictive disorders, alcohol intoxication is given under

DSM-5 303.00(F10.129), (F10.229), (F10.9292)⁹

ICD-10 code F10.129 for Alcohol abuse with intoxication, unspecified is a medical classification as listed by WHO under the range - Mental, Behavioral and Neurodevelopmental disorders.¹⁰

Definitions of intoxication can be found in both DSM-5 AND ICD-10. Due to recent substance consumption that results in clinically substantial psychological and

physical impairment, intoxication is seen in both systems as a temporary state. When the substance is removed from the body, these modifications are no longer present. The nature of psychological alterations varies depending on the drug and the individual; for instance, some people feel violent after drinking alcohol, while others become glum.¹¹

Pathophysiology

Alcohol is found to affect the neuron membranes and their receptors to produce the symptoms. It mainly targets the N-methyl-D-aspartate (NMDA) receptor of phencyclidine. According to the proven hypothesis alcohol intercalates itself into the neuron membranes due to which the fluidity of the membrane is increased. This fluidity is important for the normal functioning of ion channels, receptors, and membrane-bound functional proteins. According to recent studies, alcohol shows its prominent effects on ion channels especially those that are associated with GABA type-A, nicotinic acetylcholine, serotonin 5- hydroxy tryptamine 3 receptors are activated and voltage-gated calcium channels and glutamate receptors are inhibited. These changes affect behavior, sleep and other systems of the body.¹²

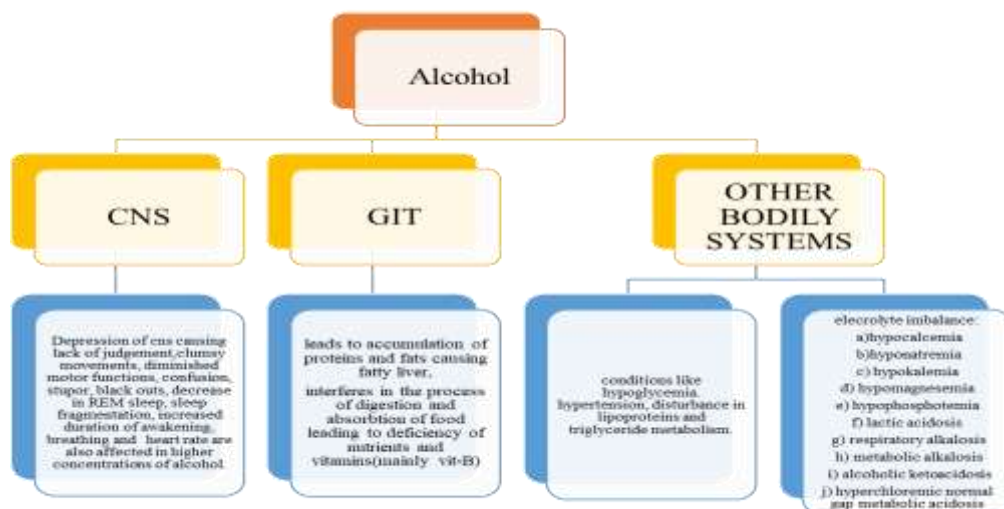


Figure 1: pathophysiology of alcohol intoxication¹²

Symptoms:

Based on the evidence of recent ethanol consumption, maladaptive behavior, and at least one of many potential physiological indicators of intoxication (signs of alcohol intoxication), the DSM-5 diagnostic criteria for alcohol intoxication (also known as simple drunkenness) are used to diagnose the condition.

Signs and symptoms of alcohol intoxication:¹²

1	slurred speech
2	dizziness
3	incoordination
4	unsteady gait
5	nystagmus
6	impairment in attention or memory
7	stupor or coma
8	double vision.

Table 1: Signs and symptoms of alcohol intoxication¹²

Symptoms of alcohol intoxication according to the Breath Alcohol Concentration:

Stage	BAC%	The part affected and the symptoms
Subliminal intoxication	0.01% - 0.05%	Slight alteration in behavior and judgment usually after 1 drink, (depending upon weight) men and women enter this stage
Euphoria	0.03% - 0.12%	Feeling of confidence and relaxation due to excessive release of dopamine. Memory and reasoning are slightly impaired
Excitement	0.09% - 0.25%	Occipital lobe - blurred vision, Temporal lobe - slurred speech and hearing frontal lobes - lack of control Parietal lobe – sensory and fine motor functions are affected this stage is marked by impaired judgment, mood swings, nausea and vomiting.
Confusion	0.18% - 0.3%	Acts on cerebellum-disorientation, causing imbalanced walking or standing. Hippocampus – blackouts. Higher pain threshold- increased risk of injury.
Stupor	0.25%	Signs of alcohol poisoning are present in this stage - mental, and physical sensory functions are affected. There is a risk of passing out, suffocation, and injury.
Coma	0.35%	This is due to impaired respiratory, and circulatory functions and motor reflexes. The risk of death is very high.
Death	≥0.45%	The brain is unable to control essential bodily processes hence leading to the death of person.

Table 2: Signs and symptoms based on BAC.¹³

DIAGNOSTIC CRITERIA:

Alcohol intoxication is diagnosed based on known or admitted alcohol consumption, behavioral changes, clinical signs such as slurred speech, incoordination, nystagmus, memory loss, and the absence of another condition to account for the symptoms. The signs and symptoms of alcohol toxicity are determined by the blood alcohol concentration (BAC). The severity of the symptoms increases as the BAC rises. One would expect relaxation, increased talkativeness, and decreased fine motor control at a BAC of 0 to 50%. Patients develop impaired judgment and coordination when their BAC ranges from 50% to 100%. From 100% to 200%, one sees gait instability,¹⁴ slurred speech, and mood and behavior changes. At a BAC of 200% to 400%, patients develop nausea and vomiting, hypothermia, dysarthria, amnesia, diplopia, and nystagmus.¹⁵

Patients with a BAC of 400% or higher can develop respiratory depression, coma, and even death. The extent and severity of these symptoms vary depending on how quickly the alcohol is ingested and the rapidity of the rise and fall of the BAC.¹⁴

The speed of absorption can be affected by co-ingested food, female sex, cigarette use, and concentration of alcohol in the beverage. Tolerance to alcohol also has an impact; a significant history of alcohol use can allow a patient to be conscious, cohesive, and free of motor deficits at BACs that would cause severe symptoms in patients without tolerance. It is critical to determine the amount and type of alcohol consumed, as well as the time frame over which it was consumed.¹⁵

Patients may experience nausea, vomiting, or diarrhea. A thorough physical examination is required, with particular attention paid to the patient's vital signs, nutritional status, and skin findings such as

capillary prominence, spider naevi, telangiectasia, palmar erythema, and muscular atrophy. As with all physical exams, airway, breathing, and circulation should be the first focus. Acute alcohol intoxication may cause respiratory depression; thus, the protection of the patient's airway is of prime importance. The physical exam should be repeated often as some patients will become aware of injuries as their intoxicated state improves.¹⁵

EVALUATION OF ALCOHOL INTOXICATION:

Acute alcohol intoxication causes lactic acidosis, hypoglycemia, hypokalemia, hypomagnesemia, hypocalcemia, and hypophosphatemia, among other metabolic abnormalities. A full electrolyte panel, as well as liver function tests, should be included in the laboratory analysis. Alcohol can have an immediate impact on the cardiovascular system, causing atrial and ventricular dysrhythmias. An EKG should be performed. One syndrome known as "holiday heart syndrome" can develop, which is characterized by new-onset arrhythmias following acute alcohol ingestion and can include new-onset atrial fibrillation. If an arrhythmia is found then serial EKGs should be done, as the majority will resolve with the elimination of alcohol. If the EKG changes continue, another cause should be considered. When a full history cannot be elucidated in the case of altered mental status, a CT scan of the brain should be performed to rule out any intracranial pathology that may affect the patient's mental status. Many inebriated patients express suicidal thoughts or make suicidal gestures. A psychiatric evaluation should be conducted, and it may be necessary to repeat it as the patient becomes more lucid.¹⁵

Scales that can be used to assess alcohol intoxication are:

- Substance Use Risk Profile Scale (SURPS)¹⁴
- Cut down annoyed guilty eye-opener (CAGE)¹⁶

- Rapid Alcohol Problem Screen 4 (RAPS4)¹⁶
- RAPS 4- quantity- frequency¹⁶
- AUD Identification Test (AUDIT) questionnaires¹⁶

MANAGEMENT^{17,18}

A detailed history of the duration of alcohol intake and abuse of other substances along with other clinical and psychiatric conditions must be taken

Explaining to the patient, the adverse effects of alcohol and motivating him to abstain from its use.

- i. Supportive as well as symptomatic care must be administered
- ii. CBT could be given
- iii. Rehabilitation and deaddiction of the patient could be done.
- iv. Occupational therapy can be advised.
- v. Management begins with the assessment of the airway and examination of the cardiac and respiratory functions.
- vi. Stabilization of the patient
- vii. During the first hour after alcohol intoxication gastric lavage and aspiration can be indicated. IV fluids are administered to prevent dehydration and electrolyte imbalance.
- viii. Hemodialysis is rarely indicated.

HOMOEOPATHIC MANAGEMENT^{19,20}

Homeopathy is well known for treating patients suffering from alcohol intoxication and disorders due to alcohol abuse.

According to aphorism 221 of the 6th edition of the organon of medicine Acute mental diseases like insanity caused by abuse of spirituous liquors that cause transient latent psora explosion is treated by acute remedies.¹⁹ These diseases are due to psoric miasm in the primary stages and later may end up in syphilitic miasm.²⁰

THERAPEUTICS:

ANGELICA - Five drops three times daily in tincture produces disgust for liquor. It has an impact on the spleen and liver. For different organ atony. Spleen enlargement

Desires alcoholic beverages. Alcoholism. Dyspepsia, nervous headaches, etc.²¹⁻²⁸

NUX-VOMICA is an excellent anti-alcoholic remedy. It corresponds to tremor, headaches, and nervous affections. It also corresponds to delirium tremens, in which every noise frightens the victim and he or she finds no rest, wakes up at night, and has terrifying visions. The tremor is characterized by ugliness, irritability, and gastric disturbance. It is used to treat the acute effects of a binge; the morning big head is often large enough for the nux, caps, and the "rich brown" taste matches perfectly. It is a remedy to be given while the patient is under the influence of alcohol or any of the stages of alcoholism.²¹⁻²⁸

HYOSCYAMUS

When delirium tremens strikes, this is usually one of the first treatments suggested. The delirium is constant and loquacious, rarely inflammatory enough for Belladonna or maniacal enough for Stramonium; the pulse is small, quick, and compressible, the skin is cold and clammy, the patient is trembling, and he or she picks at objects in the air constantly. Sexual excitement, a desire to expose the person, and a fear of poison are all characteristics. The visions of persecution are terrifying, and the patient attempts to flee. Constant insomnia is a strong indicator, as is an outburst of laughter accompanied by weeping. According to Dr. Butler, no remedy compares to Hyoscyamus in tincture, five or ten drops in a half glass of water, for the production of sleep, and teaspoonful doses are given half-hourly.²¹⁻²⁸

SULPHURIC ACID

It is used for the treatment of Alcoholism that is chronic. It corresponds to inebriates at the end of their lives, who are pale, shriveled, and cold, and whose stomach will not tolerate even the smallest amount of food. They can't drink water unless it's been thoroughly whisked. They are quick and hasty in everything they do, and they have a strong and constant desire for brandy. It

complements the sour breath and vomiting associated with alcoholic dyspepsia.²¹⁻²⁸

CANNABIS INDICA

Highly effective treatment for acute alcoholism. an active mind, violent and talkativeness; subjects crowd upon it, delusions and hallucinations relate to exaggerated subjects' time, space, and so on; face flushed, pupils dilated, perspires easily. The expression of surprise on the face is constant.²¹⁻²⁸

ARSENICUM ALBUM

Arsenic causes ghost visions and great weakness; diseases caused by excessive alcohol consumption; patients must drink their usual drinks; great tremulousness and nervous weakness. Suicidal tendencies are exacerbated by bugs and vermin that he sees on his person and persistently tries to brush them off.²¹⁻²⁸

AGARICUS MACARIUS

Agaricus is used in many parts of the world to make intoxicating drinks; we find a sphere for its action in alcoholism, as well as in all states of delirium, mania, and even idiocy. With delirium, it is common to make verses and prophesy; also, silly merriness and incoherent talk; kisses companions. exalted ideas of grandeur and power, hilarity, and excitement, followed by depression, confusion, and imbecility. Vertigo (marked and persistent), with the constant impulse to fall backward; twitching around eyes and face, redness without heat, puffy and distorted are accompanying bodily symptoms. Ravenous appetite, with food bolting. Alternating hiccoughs and eructations and nausea. Tremulousness of limbs.²¹⁻²⁸

RUBRICS FOR ALCOHOL INTOXICATION FROM DIFFERENT REPERTORIES: RUBRICS FROM KENT REPERTORY:²⁹

1. [KENT] [MIND] DIPSOMANIA

2. [KENT] [MIND] DIPSOMANIA:
drinking on the sly
3. [KENT] [MIND] DIPSOMANIA:
menses, before

RUBRICS FROM BBCR

REPERTORY:³⁰

1. [BOGER] [MIND] ALCOHOLISM,
intoxication, etc.,
2. [BOGER] [MIND] ALCOHOLISM,
intoxication, etc. easy

RUBRICS FROM PHATAK

REPERTORY:³¹

1. [PHATAK] [PHATAK A-Z]
ALCOHOLISM: Acute
2. [PHATAK] [PHATAK A-Z]
ALCOHOLISM: Later
3. [PHATAK] [PHATAK A-Z]
ALCOHOLISM: Later: Recurrent
4. [PHATAK] [PHATAK A-Z]
ALCOHOLISM:(see delirium tremens)
5. [PHATAK] [PHATAK A-Z] DROPSY,
EDEMA: ALCOHOLISM FROM:
6. [PHATAK] [PHATAK A-Z] NAUSEA:
ALCOHOLISM, FROM:

RUBRICS FROM SYNTHESIS

REPERTORY:³²

1. [SYNTHESIS] MIND: AILMENTS
FROM ALCOHOLISM
2. [SYNTHESIS] MIND: DIPSOMANIA
3. [SYNTHESIS] MIND:
DRUNKENNESS; SYMPTOMS
DURING
4. [SYNTHESIS] MIND: LIBERTINISM
5. [SYNTHESIS] GENERALS:
ALCOHOLISM
6. [SYNTHESIS] GENERALS: FAMILY
HISTORY OF- ALCOHOLISM
7. [SYNTHESIS] GENERALS: FOOD
AND DRINKS- ALCOHOLIC
DRINKS – DESIRE
8. [SYNTHESIS] GENERALS:
INTOXICATION, AFTER

Declaration by Authors

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