



# HOLISTIC APPROACH FOR THE WHOLESOME DEADDICTION OF ALCOHOL

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3. Name of Author- Dr. Priyanka\*, PG Scholar of Agadatantra Department

Co-author – Dr. Brijendra Singh Tomar\*, Professor of Agadatantra Department

Co-author -Dr. Satbir Kumar Chawla\*, Assistant Professor of Agadatantra Department

\*Shri Krishna government Ayurvedic College & Hospital, Kurukshetra, Haryana

4. Name- Dr Priyanka

Address- Shri Krishna Govt. Ayurvedic College & Hospital Sector-8 Umri Road, Kurukshetra.

JETIR

## ABSTRACT

In 21<sup>st</sup> century westernisation, and exposure to varying forms of stress has promoted computation of alcohol to much wider extent in society. This transition holds giant implications on the mankind. In the past year, 29.5 million individuals aged 12 and above were reported to have alcohol use disorder (AUD), as indicated by the 2021 National Survey on Drug Use and Health (NSDUH). Among this population National data say nearly 92% of people with alcoholism do not seek help and 60% of those who do drop out in the initial stage of treatment. Drop out from the treatment is associated with poor outcomes. This suggests that currently operated protocol has the scope for refinement. The purpose of this article is to examine the potential of a comprehensive treatment approach for alcohol addiction. The collaborative approach of treatment, ayurvedic and modern functions by uprooting off the disease completely and managing emergency conditions respectively can serve the purpose well. Apart physical illness Ayurveda addresses the significant agitation caused to the mental *satva* (strength) and other intangible factors relying on heart and thus suggest treatment correspondingly whereas modern medicines hold accounts for emergency conditions. Further studies are needed to establish a definite treatment protocol with doses for filling up the huge void between population afflicted and success rates.

## KEYWORDS

Alcohol, *madya*, de-addiction, *madatyaya*, *visha*, *oja*.

## INTRODUCTION

*Madya* has been a part of different cultures since years, it refers to all types of alcoholic beverages in general. Alcohol consumed in accordance with proper procedure, dose, time, combination of food gives rise to strength and happiness and act as an *amrita* (nectar).<sup>1</sup> However, it is a boon in small quantity but a bane when taken frequently and in large quantity. In 2019, alcohol use accounted for 2.07 million deaths of males and 374,000

deaths of females, globally<sup>2</sup>. As per the 2021 National Survey on Drug Use and Health (NSDUH), approximately 29.5 million individuals aged 12 and above, which accounts for 10.6% of this age demographic, experienced Alcohol Use Disorder (AUD) within the previous year<sup>3</sup>. Addiction is defined by the National Institute on Drug Abuse (NIDA) as a “chronic, relapsing disorder characterized by compulsive drug seeking and use despite adverse consequences<sup>4</sup>. In 21st century increase in stress and associated disorders including anxiety has promoted alcohol consumption exuberantly in all age groups as it can help a person numb feeling associated with difficult experiences and escape traumatic memories temporarily. Alcohol addiction is the mother of several diseases. In the International Classification of Disease (ICD)-10 twenty-five chronic disease and condition codes are entirely attributable to alcohol, it plays a component-risk role in certain cancers, other tumours, neuropsychiatric conditions, and numerous cardiovascular and digestive diseases<sup>5</sup>. It takes the person to hell disguised as heaven. Harmful use of alcohol is a global problem which comprises individual, social and economic implications. It reduces life expectancy by approximately 24-28 years<sup>6</sup>. Research has found that over 50% of all suicides are associated with alcohol or dependence<sup>7</sup>. Women experience long-term complications of alcohol dependence more rapidly than men and have a higher mortality rate. Heavy drinking over time leads to reproductive dysfunction. WHO has estimated economic cost of alcohol misuse varying from 1-6% of country's GDP<sup>8</sup>.

Alcohol addiction significantly contributes to the burden of chronic diseases globally and with the current modern treatment modalities, it has highest rates of dropouts in the initial stages of treatment which can be as high as 60 per cent<sup>9</sup>. Alcohol and its related disorders are discussed with much seriousness in the ancient texts of *Ayurveda*. *Ayurvedic* and allopathic treatments can be combined in a collaborative approach to enhance success rates and minimize treatment discontinuation, as both modalities complement each other by uprooting off the disease completely and managing emergency conditions.

## MADATYAYA AND ADDICTION

Allopathic and *ayurvedic* both counterparts draw the same conclusion of potential benefits of consuming alcohol in moderation. Alcohol can have beneficial effects in low doses, such as reducing the risk of certain health issues like heart attacks, diabetes, strokes, gall stones, and possibly Alzheimer's disease etc.<sup>10</sup>. However, consuming two standard drinks per day can increase the risk of health problems in various organ systems. The recommended safe limits for drinking are around 20-32 grams per day for men and 14-27.2 grams per day for women<sup>11</sup>. Alcoholism is, broadly, any drinking of alcohol that results in significant mental or physical health problems.<sup>12</sup> The risk of developing alcoholism is influenced by both environmental and genetic factors<sup>13</sup>. Stress and associated disorders, including anxiety play vital role in the development of alcoholism. Alcohol consumption can temporarily alleviate negative emotions and creates euphoric feeling. Numerous individuals turn to drugs and alcohol as a means of coping with challenging emotions and trauma. Factors such as child abuse, maltreatment, neglect, mental health problems, and having parents who abuse substances increases the risk of addiction. Therefore, someone who has encountered any of these issues may be more prone to developing an addiction. While the initial choice to use drugs or alcohol is a voluntary one, as addiction progresses, an individual's ability to exercise self-control becomes significantly impaired. Because prolonged abuse of drugs and alcohol induce alterations in the brain that may persist even after discontinuing use.

Alcohol dependence refers to excessive and problematic alcohol use those results in impairment or distress. Individuals with alcohol dependence often prioritize alcohol in their daily routines, neglecting other responsibilities and pleasures. Eventually, their decision-making abilities become compromised, even inferior to those of goldfish. An individual who is alcohol dependent tends to structure their day around obtaining, using, and experiencing the effects of alcohol. A history of neglecting other sources of pleasure and responsibilities in school, home, or work, as well as loss of control over the amount or pattern of alcohol use, indicate the possibility of alcohol dependence. Additionally, the persistence of alcohol use despite awareness of the associated harms is another sign of dependence on alcohol. The World Health Organization's ICD-10 Classification of Mental and Behavioural Disorders provides a description of the criteria for diagnosing alcohol dependence syndrome<sup>14</sup>. This condition has a disproportionately high correlation with deliberate self-harm, high-risk sexual behaviour, human immunodeficiency virus (HIV) infection, tuberculosis, oesophageal cancer, liver disease, and duodenal ulcer. When an individual presents a history of excessive (regular or periodic) alcohol use, particularly when it is associated with medical, psychological, vocational, financial, familial, and social problems, an assessment should be conducted to determine the presence of alcohol dependence<sup>15</sup>.

Alcohol abuse encompasses a spectrum of unhealthy alcohol drinking behaviours, ranging from binge drinking to alcohol dependence, in extreme cases resulting in health problems for individuals and large-scale social problems such as alcohol-related crimes.<sup>16</sup>

*Madakari Dravya* is that intake of which produces disturbance of the intellect faculty by its virtue of *Tamo-guṇa* like *Madya, Sura* etc<sup>17</sup>. *Acharya Sharangdhar*, while describing the property of *madakari*, includes all substances with *tamo guna* (properties of darkness) that cause mental disturbance under the *madya* category<sup>18</sup>. In *Sushruta Samhita* *Madya* is described as anesthetic agent<sup>19</sup>. Alcohol, similar to food, holds a vital place when consumed appropriately. Just as food is essential for human beings, it can also be harmful if ingested improperly. While poison is deadly, it can be considered beneficial if used judiciously<sup>20</sup>. The understanding of the *shad trik* (six triads) of food, drink, age, disease, strength, and time, as well as the three *doshas* and three psyches, is crucial when consuming alcohol for optimum utilisation of its benefits<sup>21</sup>. Both *Acharya Charak* have assigned a specific category for it under "*anna varga*" (group of food items)<sup>22</sup>. The improper use of *madya* leads to a condition called *madatyā*, as stated by *Acharya Charak*. According to *Acharya Charak*, *madya* contains all *rasas* (tastes) except for *lavan ras* (salty taste) and is considered the best among the *amal ras* (sour taste) substances<sup>23</sup>.

## DELETERIOUS EFFECTS OF ALCOHOLISM AND *MADATYE*

Table 1: Parallel drawn between alcoholism and madatyaya

ALCOHOLISM <sup>24</sup>	MADATYAYA <sup>25</sup>
Impaired mental status	Perplexity ( <i>moha</i> ), phobia ( <i>bhaya</i> ), grief ( <i>shoka</i> ), rage ( <i>krodha</i> )
Impaired physical performance (Nutritional deficiency)	hiccup, fever, vomiting, shivering, pain in flanks, cough and giddiness
Neurological afflictions (Polyneuritis, pellagra, tremors, seizures, loss of brain mas, Wernicke's encephalopathy, Korsakoff's psychosis.)	Epilepsy ( <i>apasmar</i> ), and tendon spasms ( <i>aptanaka</i> )

Table 2: Short- and long-term effects of alcohol

<b>SHORT TERM EFFECTS</b>	Road accidents, falls, drownings, burns, violence (including homicide and sexual assault), alcohol poisoning, risky sexual behaviour
<b>LONG TERM EFFECTS</b>	Development of several diseases, including liver damage, heart diseases, high blood pressure, stroke, digestive problems, cancer, weakened immune system, increased susceptibility to illnesses, memory problems, and mental health issues such as depression and anxiety, also leads to social, family, and job-related problems.

Given that alcoholism is a chronic relapsing disease, many alcohol-dependent people invariably experience multiple bouts of heavy drinking interspersed with periods of abstinence of varying duration. The one who starts consumption of the liquor in excess quantity after stopping, suffers from the diseases called as *dhwansaka* and *vikshaya* which are more difficult to treat in debilitated person<sup>26</sup>.

## COMPARISON OF MADYA, OJA AND VISHA

*Charak* has commented on *madatya* as a *tridosh prakopak* similar to *visha*<sup>27</sup>. Poison and addiction are the flipped sides of the same coin; thus, *Acharya Charak* has described *Visha chikitsa* first and then *Madatya chikitsa* in *chikitsa sthan*. Alcohol affects the body by opposing the vital essence known as *ojas* through its ten qualities, resulting in disturbances in mental factors and producing abnormalities<sup>28</sup>. This leads to an agitation of mental strength and affects other factors that rely on *ojas*, causing confusion. Excessive alcohol consumption and the gradual decline of *ojas* have a negative impact on the heart and the tissues located within it, which can be understood as *aashrya aashri Siddhant*<sup>29</sup> The destruction of the support system leads to the destruction of what is supported. The heart serves as the site for *strotas* (channels) related to bodily *rasa* (fluids), *vata* (movement), as well as entities like mental *satva* (strength), *buddhi* (intellect), *indriya* (senses), *atman*(self), and the *para ojas* (vital essence)<sup>30</sup>. While *rakta* (blood) circulates throughout the body, its specific location is the *hridaye* (heart). The heart provides shelter to various components such as the *shadanga* (six limbs), *anga* (organs), *vijana*

(consciousness), the *panch indriya* (five senses), *atma* (self), *satva* (mental strength), along with their qualities, *cheta* (thoughts), and other related matters<sup>31</sup>.

Table 3: Comparison of guna of madya, oja and visha

<b>VISHA</b>	<b>MADYA</b>	<b>OJA</b>
<i>Laghu</i>	<i>Laghu</i>	<i>Guru</i>
<i>Ruksh</i>	<i>Ruksh</i>	<i>Snigdha</i>
<i>Aashu</i>	<i>Aashu</i>	<i>Prasad</i>
<i>Vishad</i>	<i>Vishad</i>	<i>Pichila</i>
<i>Vyvayi</i>	<i>Vyvayi</i>	<i>Sthira</i>
<i>Tikshn</i>	<i>Tikshn</i>	<i>Mridu</i>
<i>Vikasi</i>	<i>Vikasi</i>	<i>Shalakshan</i>
<i>Sukshm</i>	<i>Sukshm</i>	<i>Sandra</i>
<i>Ushn</i>	<i>Ushn</i>	<i>Shita</i>
<i>Anirdeshya</i>	<i>Amal</i>	<i>Madhura</i>

## DIAGNOSIS OF ADDICTION

A description of criteria for diagnosis of alcohol dependence syndrome as specified in the WHO's ICD-10 Classification of Mental and Behavioural Disorder<sup>33</sup>.

While assessing an individual for alcohol dependence, apart from socio-demographic details it is important to carry out complete clinical assessment. The diagnosis of alcohol dependence is clinical and is based primarily on the information obtained from history. Findings from the physical examination and MSE can help support the diagnosis<sup>33</sup>.

Table 4: Diagnosis of addiction

<b>MEDICAL HISTORY</b>	The diagnosis of alcohol dependence is clinical and is based primarily on the information obtained from history
<b>PHYSICAL EXAMINATION</b>	helps identify presence of physical complications associated with alcohol use.
<b>MENTAL STATUS EXAMINATION</b>	identifies presence of any co-occurring psychiatric disorders, level of motivation and presence of complicated alcohol withdrawal.

	<p>should include details about the individual's alcohol consumption patterns, the type of alcoholic beverages consumed, the duration of alcohol use, signs of alcohol dependence, and any alcohol-related complications affecting physical, psychological, familial, social, vocational, financial, or legal aspects of their life. It is also important to inquire about past attempts at abstinence and assess the individual's level of motivation.</p>
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## DIFFERENTIAL DIAGNOSIS

It is essential to distinguish these alcohol-induced disorders from independent psychiatric disorders. Excessive alcohol use, especially in cases of alcohol dependency, is frequently associated with various psychiatric disorders known as alcohol-induced disorders, such as dementia, amnesic disorder, psychotic disorder (including delusions or hallucinations), mood disorder, anxiety disorder, sexual dysfunction, and sleep disorder<sup>35</sup>.

## TREATMENT

Alcohol use disorder is a brain disease with significant effects on the brain, making it difficult to quit without professional help. Attempting to overcome alcohol addiction without professional assistance can be likened to trying to cure appendicitis with positive thinking alone. Treatment options include outpatient and inpatient care. Inpatient care is recommended for heavy alcohol misuse, providing 24/7 support during withdrawal. Outpatient rehabilitation is suitable for mild to moderate cases, aiming to stop drinking and allow the body to eliminate alcohol. Treatment consists of two phases: short-term management (detoxification) and long-term management. Detoxification targets withdrawal symptoms like tremors, sweating, nausea, and hallucinations that occur within hours of stopping alcohol<sup>36</sup>. Symptoms peak on the second or third day and subside by the fourth or fifth day.

As there is accumulation of morbid *dosha* in large quantity all over body in *madatyaya* and impairment of *ojas*, *Panchakarma* have a key role to play in the management of *Madatyaya*. As the origin of the disease is at the site of *kapha dosha* thus treatment first through *kapha sthan gata*. considering *kapha dosha* as *balavana* treated first after treating *kapha dosha* than the *pitta* and last *vata dosha* (*kapha sthan anupurvi chikitsa*)<sup>37</sup>. After performing *Vaman Tarpanadi Samsarjana Krama* is advised to restore rehydration. In conventional sciences there is no specific treatment modality available for detoxifying the effects of alcohol. In *ayurveda* there are many *Shamanoushadhis* explained, *Ashtanga Lavana* is one among them it acts as *Deepana* and *Srotoshodhaka* and may also help in faster conversion of Acetaldehyde into citric acid<sup>38</sup>.

According to various case studies conducted previously, different Ayurvedic treatments have demonstrated noteworthy outcomes in managing alcohol withdrawal syndrome and alcohol dependence. For instance, *Kharjooradi Mantha* and *Ashtanga Lavanayukta Takra* are commonly employed in the management of "*madatyaya*" (alcohol-related disorders). *Kharjooradi Mantha*, known for its *brimhana* (nourishing) properties,

helps rectify nutritional deficiencies in individuals with alcohol addiction<sup>39</sup>. *Ashtanga Lavana Yukta Takra* aids in improving digestive fire (*agni*) and promoting the proper functioning of body channels (*strotas*).

Similarly, *Sreekandasavam* has shown beneficial effects in alleviating withdrawal symptoms, and the therapeutic use of specific alcoholic beverages (*madya*) is mentioned conditionally during the initial stages of managing *madatyaya*<sup>40</sup>. *Sreekandasavam* also exhibits *Pittahara* (balancing Pitta) and hepatoprotective properties. *Pippali* (long pepper) is highly regarded for addressing disorders caused by vitiated blood (*Raktadushti*) and its impact on organs associated with the circulatory system, such as the liver and spleen. It is also considered a potent *rasayana* (rejuvenate) herb. *Pippali Ksheerapaka*, a preparation involving *Pippali* and milk, has been found to be highly effective in managing alcohol dependence<sup>41</sup>. During the challenging initial phase of alcohol withdrawal syndrome individuals often experience symptoms such as insomnia, hallucinations, and severe anxiety. In such cases, *Marsa Nasya* (intranasal administration) with medications like *Ksheerabala* has shown promising results<sup>42</sup>. Apart this *hetu vipritarthkari chikitsa* is also indicated in *madatyaya* in which poison effect is reduced by the administration of poison, thus different type of *madya* is administered to reduce the effect of alcohol<sup>43</sup>, thus *anutarsh matra* of alcohol is indicated. The consumption of *paishitik guna madya* does not affect *ojas* severely due to lack of harmful qualities like *vikashi* (expanding properties) *ruksha* (dryness or roughness) and *vishada* (non-sliminess) properties<sup>44</sup>. To alleviate the weakness caused by alcohol, *kshira* (milk) is recommended, which serves as boon as like the rains for the tree in intense summer<sup>45</sup>. Alcohol cannot lead to *mada* (intoxication) without distressing *mana* (mind) and affecting the *sharira* (body), therefore *harshan chikitsa* (exhilaration treatment) is advised to stabilize body and mind<sup>46</sup>. Apart this various *pranyam* such as *bhramari pranayama* has proven to be effective in reducing the symptoms of generalized anxiety disorders<sup>47</sup>. Beside this benzodiazepine should be administered to reduce withdrawal severity and incidence of both seizures and delirium tremens (DT).

## DISCUSSION

During the initial treatment phase, the relapse rate can reach as high as 60%. Several factors contribute to this relapse, one major factor is the adverse drug reaction shown by the treatment apart early age onset of alcohol consumption and a delay of years before seeking treatment. Manual laborers often return to alcohol consumption after treatment to alleviate physical pain after work, which can lead to guilt and deter them from seeking help again. Additionally, individuals who quit drinking in a controlled environment may fear social isolation in the community and eventually relapse. The World Health Organization (WHO) states that unrecorded alcohol, which is easily available at lower costs, accounts for 51% of all alcohol consumed in India<sup>49</sup>.

The implementation of a holistic approach in treating alcoholism can effectively counter this serious disease from all angles. By adopting an integrative approach to treatment, it is possible to reduce adverse drug reactions, alleviate the emotional burden on both the addict and their loved ones, and shorten the duration of treatment and hospital stays.

By integrating *Ayurveda* as the primary treatment method and combining it with indispensable modern medicines, effectiveness of patient care can be enhanced. *vaman* can be used to expel accumulated morbid *dosha* in body and for the detoxification stage various ayurvedic formulations can serve as an alternative to medications like disulfiram during detoxification. Prophylactically benzodiazepines can be used This collaborative approach

allows for a reduction in the dosage of supportive drugs. Additionally, practicing pranayama and adopting a balanced diet can support patient in constructing healthier way of living.

According to national data, 92% of people with alcoholism don't seek help, and half of those who do drop out within the first month of treatment. This results in significant personal loss and economic implications. Additionally, addiction doesn't just impact the individual but also takes an emotional toll on their loved ones. The objective of the article is to promote a collaborative approach to addiction treatment, aiming to reduce dropouts and ensure a smoother and successful recovery process. however, *vaman* procedure is contraindicated in conditions such as Vata Pradhana *Madatyaya*, Alpa Dosha, Alpa Bala, acute peptic ulcers, recent history of haematemesis, oesophageal varices, chronic liver cirrhosis with ascites and severely debilitated patients should not be described *tikshan vaman*.

### CONCLUSION:

Alcohol addiction goes beyond being solely a physical or mental illness. It vitiates entities like mental strength (*satva*), intellect (*buddhi*), senses (*indriya*), self (*atman*), and the vital essence (*para ojas*). Therefore, the treatment approach should surpass these boundaries as well. The need of the hour is to recognise potential of holistic approach and revise the treatment protocol for better success rates. As per the several case studies conducted previously, *ayurvedic* formulations and unaged yoga practices have demonstrated encouraging outcomes in the treatment of alcohol addiction. Nevertheless, it is equally essential to acknowledge the importance of modern medicines both prophylactically and in emergency situations. Taking into account the potential side effects associated with these medications, dosage adjustments can be made through a collaborative approach. The implementation of this approach could have a significant impact on increasing the number of individuals seeking medical assistance, reducing dropout rates, and enhancing the motivation of patients towards adopting a healthier lifestyle. The world needs more research for creating new avenues in alcohol deaddiction with exploration of explicit treatment protocols given in *madataya*.



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