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Its All About Basics



MADATYAYA - ALCOHOLIC DISORDER MANAGEMENT THROUGH AYURVEDA: A SCIENTIFIC REVIEW

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ABSTRACT:

Alcohol Use Disorder (AUD) is a medical condition characterized by an impaired ability to stop or control alcohol use, despite adverse consequences, and is sometimes referred to as alcoholism or alcohol dependence. Alcohol Use Disorder (AUD) is a chronic and relapsing brain disease that involves a pattern of alcohol use that causes problems, including excessive drinking and interference with relationships, work, or other areas of life. *Madatyaya*, as described in classical Ayurvedic texts, results from overconsumption of alcohol, leading to systemic imbalances affecting the nervous system, liver, and mental health. Despite conventional medical interventions, alcohol addiction remains a major global health concern, contributing to chronic diseases, socioeconomic burdens, and increased mortality rates. Ayurveda provides a holistic approach to managing *Madatyaya* through detoxification (*Shodhana*), herbal treatments (*Shamana*), dietary modifications, and psychological interventions (*Satvavajaya Chikitsa*). Ayurvedic classics such as Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya extensively elaborate on the classification, etiology, pathophysiology, and treatment strategies for alcohol intoxication. The classification of *Madatyaya* based on *Dosha* involvement—*Vataja*, *Pittaja*, *Kaphaja*, and *Sannipataja*—highlights individualized treatment approaches tailored to restore homeostasis. Additionally, specific therapies for alcohol withdrawal symptoms (*Panavibrama*) and alcohol poisoning (*Paramada*) have been documented in Ayurvedic texts. This review explores the Ayurvedic perspective on *Madatyaya*, its clinical manifestations, and the efficacy of traditional interventions. By analyzing classical references and contemporary research, the study emphasizes Ayurveda's potential as a complementary approach to modern de-addiction therapies. Integrating Ayurvedic principles with current medical strategies may offer a sustainable solution for managing alcohol addiction and improving long-term recovery outcomes.

KEYWORDS

Madatyaya, Alcohol Use Disorder (AUD), Ayurveda, *Shodhana*, *Shamana*, *Satvavajaya Chikitsa*, *Dosha*, Alcohol Withdrawal, De-addiction Therapy

INTRODUCTION

Alcohol consumption has been a part of human civilization for centuries, with both cultural and medicinal significance. However, excessive and prolonged use leads to addiction, which is recognized as Alcohol Use Disorder (AUD). It is a medical condition characterized by an impaired ability to stop or control alcohol use, despite adverse consequences, and is sometimes referred to as alcoholism or alcohol dependence.ⁱ Alcohol Use Disorder (AUD) is a chronic and relapsing brain disease that involves a pattern of alcohol use that causes problems, including excessive drinking and interference with relationships, work, or other areas of life.ⁱⁱ *Madatyaya* is described in classical Ayurvedic texts as a condition arising due to excessive alcohol intake, leading to systemic imbalances and various health complications. It primarily affects the nervous system, liver, and mental health, causing a range of physical and psychological disorders. Ayurveda, with its holistic approach, offers a promising alternative to conventional treatments by addressing the root cause, detoxification, and mental well-being.ⁱⁱⁱ

According to the World Health Organization (WHO), excessive alcohol consumption contributes to over 3 million deaths annually.^{iv} It is associated with chronic liver diseases, cardiovascular disorders, neurological impairment, and mental health issues such as depression and anxiety. Socioeconomic burdens include family disruptions, reduced work productivity, and increased crime rates. Alcohol Use Disorder (AUD) continues to be a significant public health issue in India, with notable variations across different regions and demographics. The National Mental Health Survey of India (2015–2016) reported that the prevalence of alcohol use disorders was 4.7%, while the prevalence of other substance use disorders (excluding tobacco) was 0.6%. States with the highest prevalence of alcohol use include Chhattisgarh, Tripura, Punjab, Arunachal Pradesh, and Goa. Notably, states such as Tripura, Andhra Pradesh, Punjab, Chhattisgarh, and Arunachal Pradesh have reported alcohol use disorders in over 10% of their population. For every woman consuming alcohol, there are 17 men who do so, highlighting a significant gender disparity in alcohol consumption. Alarming, only about 1 in 38 individuals with alcohol dependence report

receiving any form of treatment or help for their alcohol-related problems. These statistics underscore the pressing need for targeted interventions, public health strategies, and accessible treatment options to address the challenges posed by alcohol use disorders in India.^v The rising incidence of alcohol addiction and its adverse effects on individuals, families, and society highlight the urgent need for effective management strategies.^{vi} Modern treatment methods, including pharmacotherapy and psychotherapy, have shown limitations in terms of side effects and high relapse rates.^{vii} Ayurveda provides a multidimensional approach that integrates detoxification (*Shodhana*), herbal formulations (*Shamana*), dietary and lifestyle modifications, and psychological interventions (*Satvavajaya Chikitsa*).^{viii} The emphasis on personalized treatment and restoration of balance makes Ayurveda a significant complementary system for alcohol de-addiction therapy. This article aims to explore the concept of *Madatyaya*, its pathophysiology, and the Ayurvedic principles involved in its management. It discusses classical references, therapeutic approaches, and the potential benefits of integrating Ayurvedic interventions with modern de-addiction therapies. By analyzing both textual evidence and scientific studies, this review intends to highlight Ayurveda's role in managing alcohol addiction and provide insights for future research in this domain.

MATERIALS AND METHODS

This review article systematically analyzes Ayurvedic treatment methods for *Madatyaya* as documented in the classical texts of *Charaka*, *Sushruta*, and *Vagbhata*. Additional references have been considered from other Ayurvedic and contemporary research literature.

Ayurvedic review of *Madhya*

Madhyavarga is classified as one of the twelve *Ahara Varga* (food classifications) in Ayurveda. It serves as an *Ahara Dravya* (food adjunct), an *Anupana* (post-consumption drink), or an *Aushadhi* (medicine). The *Sushruta Samhita* references the use of *Madhya* (alcohol) for *Samdnyaharana* (anesthesia) in *Shastrakarma* (surgical procedures).^{ix} Based on its application, *Madhya* is categorized into two types: medicinal and recreational. Further classification is based on preparation methods and raw materials, including

Asava, *Arista*, *Sura*, *Varuni*, and *Sidhu*. Among these, *Asava* and *Arista* are primarily used for medicinal purposes, whereas the others are categorized as beverages.^x

Madhya, when consumed in a regulated manner with appropriate considerations of quantity, timing, and method, can provide physiological benefits such as enhanced strength, mental relaxation, and stress reduction. However, improper and excessive consumption leads to *Madatyaya* (alcohol intoxication and associated disorders).

Madatyaya (Alcohol Intoxication)

Alcohol consumption directly affects cognitive function, increases *Tamoguna* (mental dullness), and impairs judgment. It disrupts physiological homeostasis by altering *Dosha*, *Dhatu*, and *Mala* (bodily humors, tissues, and excretory functions). Chronic misuse and overconsumption can lead to severe health deterioration and even mortality.^{xi}

In contemporary society, alcohol consumption has become a social norm, often without awareness of its appropriate utilization and adverse effects. The increasing trend of alcohol dependency is contributing to significant health risks and reduced life expectancy. *Acharya Charaka* has elaborated on the significance of alcohol (*Sura*), its consumption, and its effects on human physiology. Historically, alcohol was revered and used ceremonially, as seen in the *Sautramani Yajna*, where it was offered in rituals and honored by priests and kings.^{xii}

Literary Review

1. **Charaka Samhita:** *Madatyaya* is described in the 24th chapter, following *Visha Chikitsa* (toxicology), highlighting its toxic-like properties. The text details the qualities (*Gunas*) of *Madhya*, the stages of *Madatyaya*, alcohol-induced diseases, their symptoms, and treatment modalities.^{xiii}
2. **Sushruta Samhita:** In *Uttara Tantra*, Chapter 47, *Madatyaya* is elaborated under the term *Panatyaya Pratisheda*.^{xiv}
3. **Ashtanga Sangraha:** *Madatyaya Chikitsa* is comprehensively explained in the 9th chapter of *Chikitsa Sthana*, including *Madhya Prayoga* (therapeutic use of alcohol) and treatments for *Mada* (intoxication) and *Murcha* (syncope).
4. **Ashtanga Hridaya:** The etiology (*Nidana*) of *Madatyaya* is discussed in Chapter 6 of

Nidana Sthana, while its treatment is covered in Chapter 7 of *Chikitsa Sthana*, along with therapies for *Mada*, *Murcha*, *Sanyasa*, and disorders such as *Dwamsaka* and *Vikshaya*.^{xv}

5. **Kashyapa Samhita:** Discusses the effects of alcohol on pregnant women and infants, along with corresponding treatment protocols.^{xvi}
6. **Madhava Nidana:** *Madatyaya* is described after *Krumi Nidana* (parasitic infections).
7. **Bhava Prakash:** Covers *Madatyaya* in *Madhyama Khanda*, following discussions on *Murcha*, *Bhrama*, *Nidra Tandra*, and *Sanyas Adhikarana*, along with *Daha Adhikarana*.
8. **Yogaratanakara:** Dedicates an entire chapter, *Madatyaya Adhikara*, following *Murchadhikara*.

Madatyaya (Alcoholism)

Definition and Etymology- *Madatyaya* is derived from two Sanskrit words: *Mada* (excitement) and *Atyaya* (excess). It is defined as *Madyati Janonena*, indicating that excessive consumption of *Madhya* (alcohol) results in loss of sensory control and mental equilibrium. The toxic effects of *Madya* manifest based on the involvement of the *Doshas* (bodily humors).

In *Sharangadhara Samhita*, *Madhya* is categorized under *Madakari* drugs—substances predominantly possessing *Tamoguna* (darkness/inertia) and causing mental derangement. Examples of such intoxicants include *Sura* and *Madhya*.^{xvii}

Classification of Madatyaya

Madatyaya is also termed *Panatyaya* and is considered a *Tridoshaja Vyadhi* (disorder involving all three *Doshas*). Based on *Dosha* involvement, it is classified into:^{xviii}

- *Vataja Madatyaya*
- *Pittaja Madatyaya*
- *Kaphaja Madatyaya*
- *Sannipataja Madatyaya* (involving all three *Doshas*)

Additionally, three progressive conditions are described:^{xix}

1. *Paramada*
2. *Panajeerna*
3. *Panavibrama* (severe intoxication)

Stages of *Mada* (Intoxication)^{xx}

Both *Charaka* and *Sushruta* describe three stages of *Mada*, while *Madhavakara*, in the *Purvardha* of *Madhava Nidana* (18th chapter), elaborates on four stages of intoxication.

First Stage of Alcoholic Intoxication

Consumption of alcohol in moderate amounts induces exhilaration, passion, and an enhanced perception of sensory experiences. This stage promotes creativity in music, storytelling, and humor without impairing intellect or memory. The individual experiences deep sleep and wakes up feeling refreshed, making this stage conducive to temporary happiness.

Second Stage of Alcoholic Intoxication

As intoxication progresses, the individual exhibits memory lapses, inarticulate speech, and incoherent thoughts. Their behavior alternates between rational and irrational actions, and their posture, movements, eating, and communication become erratic and comical.

Third Stage of Alcoholic Intoxication

In this severe stage, the individual becomes inactive, akin to a fallen tree, with an intoxicated mind leading to unconsciousness. Though alive, they resemble a lifeless being, unable to recognize pleasurable experiences or loved ones. Deprived of happiness, they lose their ability to distinguish between beneficial and harmful actions. This stage leads to social condemnation, ostracization, and ultimately deteriorates both physical and mental health.

Understanding these stages and their effects underscores the importance of responsible alcohol consumption as described in Ayurvedic texts.

Types of *Madatyaya* Based on Dosha Involvement^{xxi}

Type	Nidana (Causes)	Lakshana (Symptoms)
<i>Vataja Madatyaya</i>	Excessive indulgence in <i>Vyavaya</i> , <i>Shoka</i> , <i>Bhaya</i> , strenuous activities, consumption of <i>Ruksha</i> and <i>Alpa</i>	Hiccup (<i>Hikka</i>), asthma (<i>Shwasa</i>), head tremors (<i>Shirakampa</i>), chest pain (<i>Parshva Shoola</i>), insomnia, delirium (<i>Bahupralapa</i>).

	<i>Aahara</i> , drinking excessively fermented alcohol at night.	
<i>Pittaja Madatyaya</i>	Consumption of excessive <i>Tiksha</i> , <i>Ushna</i> , <i>Amla</i> food, exposure to heat, drinking <i>Tiksha</i> , <i>Ushna</i> , and sour <i>Madhya</i> .	Thirst (<i>Trushna</i>), burning sensation (<i>Daha</i>), fever (<i>Jwara</i>), sweating (<i>Sweda</i>), giddiness (<i>Moorcha</i>), diarrhea (<i>Atisar</i>), greenish discoloration (<i>Haritavarna</i>).
<i>Kaphaja Madatyaya</i>	Excessive intake of <i>Madhura</i> , <i>Snigdha</i> , <i>Guru Aahara</i> , lack of exercise, <i>Divaswapa</i> , indulgence in comfort, drinking non-aged or <i>Guda</i> -based <i>Madhya</i> .	Vomiting (<i>Chardi</i>), anorexia (<i>Arochaka</i>), nausea (<i>Hrullasa</i>), drowsiness (<i>Tandra</i>), timidity (<i>Sthaimitya</i>), heaviness (<i>Gaurava</i>).
<i>Sannipataja Madatyaya</i>	Combination of factors causing <i>Tridosha</i> imbalance.	Body pain, unconsciousness, chest pain, tastelessness, excessive thirst, fever, heat-cold sensation, headache, yawning, excitement, cough, hiccups, difficulty breathing, shivering, sensory organ diseases, vomiting, loose

		stools, nausea, dizziness, delirium.
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Types of Panatyaya (As per Sushrutacharya)

Type	Symptoms
Vataja Panatyaya	Numbness (<i>Stambha</i>), body ache (<i>Angamarda</i>), palpitation, chest pain (<i>Hridayagraha</i>), pricking sensation (<i>Toda</i>), headache (<i>Shiroruja</i>).
Pittaja Panatyaya	Perspiration (<i>Sweda</i>), delirium (<i>Pralapa</i>), dry mouth (<i>Mukhashosha</i>), burning sensation (<i>Daha</i>), unconsciousness (<i>Murcha</i>), yellowish discoloration (<i>Vadanalochan Peetata</i>).
Kaphaja Panatyaya	Vomiting (<i>Vamathu</i>), shivering (<i>Sheetata</i>), excessive mucus secretion (<i>Kapha Praseka</i>).
Sannipataja Panatyaya	Symptoms of all three <i>Doshas</i> combined.

Progressive conditions Related to Alcohol Consumption

Type	Symptoms
Paramada	Body heat (<i>Ushmanam</i>), heaviness (<i>Angagurutam</i>), excess <i>Sleshma</i> , aversion to food (<i>Aruchi</i>), constipation (<i>Malamutra Sangam</i>), thirst (<i>Trushna</i>), headache, joint pain.
Panajeerna	Abdominal distension (<i>Aadhmana</i>), sour belching (<i>Udgiran Amlarasa</i>), indigestion (<i>Ajeerna</i>), aggravated <i>Pitta</i> symptoms.
Panavibhrama	Piercing pain in the heart (<i>Hridgata Toda</i>), vomiting (<i>Vamathu</i>), fever (<i>Jwara</i>), throat burning (<i>Vidaha</i>), dizziness (<i>Murcha</i>), excessive salivation (<i>Kaphasravan</i>), headache (<i>Shiroruja</i>).

Vagbhata - *Acharya Vagbhata* explains four types of *Madatyaya* viz., *Vataja*, *Pittaja*, *Kaphaja* and *Sannipataja*. Apart from this *Dhvamsaka* and *Vikshaya* is also explained.

Etiology: A person, if suddenly stopped drinking *Madhya*, takes recourse to drinking *Madhya* in excessive amount again, then he suffers from *Dhvamsaka* and *Vikshaya*.

Signs and Symptoms

Dhvamsaka: *Sleshma Praseka*, *Kanthasya Shosha*, *Shabdasahishnuta*, *Atitandra* and *Nidra*.

Vikshaya: *Sammoha*, *Chhardi*, *Angaruja*, *Jwara*, *Trishna*, *Kasa*, *Shiroshoola*.

A person suffering from *Dhvamsaka* or *Vikshaya* are difficult to cure, as the person is already become weak and emaciated because of his earlier alcohol drinking habit.

Upadrava of Madatyaya: *Hikka* with *Jwara*, *Vamathu*, *Vepathu*, *Parshwashoola*, *Kasa* and *Bhrama*.

Asadya Lakshana (Incurable): Irresponsive to questions (*Heenottaraushtiham*), extreme cold (*Atisheetam*), heaviness of tongue (*Jivha Gauravata*), cold teeth (*Sheeta Danta*), bluish discoloration of teeth (*Neela Danta*), yellowish discoloration of eyes (*Peeta Nayana*), reddish discoloration of eyes (*Rakta Nayana*).

1. Samanya Chikitsa (General Management)

1.1 Chikitsa according to Dosha

- All types of alcoholism are *Tridoshaja*; hence, the predominant *Dosha* should be treated first.
- Generally, treatment starts with *Kapha dosha*, as it is flanked by *Pitta* and *Vata*.

1.2 Administration of Madhya (Madhya Prayoga)

- If alcoholism is caused due to improper drinking of liquor, controlled administration of *Madhya* can help in pacifying the *Vata* imbalance.
- Wine, due to its quick absorption and sharpness, removes obstruction in channels, relieves pain, stimulates digestive fire, and alleviates symptoms.

1.3 Administration of Milk (Dugda Prayoga)

- If alcoholism persists despite controlled *Madhya* administration, milk should be advised.
- Milk helps in nourishing the body, alleviating *Vata* and *Pitta* dominance after *Kapha* depletion.
- Milk should be gradually withdrawn with the inclusion of *Pathya Dravyas*.

1.4 Psychological Measures (*Harshanakriya*)

- Since alcoholism affects the mind, psychological uplifting measures are essential.
- Exposure to beautiful natural surroundings, melodious music, pleasing company, good food, and fragrances help alleviate alcoholism.

1.5 Administration of Specific Drugs

- After 7-8 days, specific medicines should be administered to eliminate any residual effects of alcohol.

2. Visistha Chikitsa (Specific Treatment)

2.1 *Vataja Madatyaya*

- Herbs: *Chukra, Maricha, Ardraka, Dipya, Kusta* with *Sauvarchala* salt.
- Liquids: *Pana* prepared from *Amra Phala, Amrataka, Dadima, and Matulunga*.
- Diet: Meat soup mixed with *Matulunga Swarasa, Sugandi Dravyas*.

2.2 *Pittaja Madatyaya*

- Liquids: *Madhya* mixed with *Kashaya* prepared from *Madhura Rasa Dravyas, Madhu, and Sita*.
- *Shodhana*: *Ikshu Rasa* followed by *vamana*.
- Diet: *Lava Mamsa Rasa, Aina, Tittira*, or *Mudga Rasa* with *Sita* and *Ghrita*.

2.3 *Kaphaja Madatyaya*

- *Shodhana*: *Vamana* with *Madhya, Bimbi, and Vidula Swarasa*.
- Diet: Meat soup of wild fatty animals with bitters and pungents, soups prepared with pulses.

2.4 *Sannipataja Madatyaya*

- Comprehensive treatment for all three *Doshas*.
- Mind-pleasing measures as described in *Samanya Chikitsa*.

3. Paramada Chikitsa (Management of Alcohol Poisoning)

- *Kashaya* : *Kasmarya, Daru, Vida, Dadima, Pippali, Draksha* with *Bijapuraka swaras*.
- *Awaleha*: *Draksha, Sita, Manduka, Jiraka, Dhanya, Trivrit*.
- Diet: Meat soup(*Mansarsa*) with *Sauvarchala* and citrus fruit juices.
- External therapy: Bath with *Bharangi*-infused water.

4. Panajirna Chikitsa (Management of Alcoholic Hangover)

- *Vamana*: with *kshirpaka* of *Iksvaku, Dhamargava, Vrksaka, Kakahvayo, Damambarika*.
- Restoration: In the evening, a controlled quantity of wine should be taken to restore *Agni* (digestive power).

5. Panavibrama Chikitsa (Management of Alcohol Withdrawal Symptoms)

- *Awaleha*:
 - *Draksa, Kapitha*, citrus fruits, *Dadima* with *Madhu* and *Sita*.
 - *Amrataka* and *Kola*- *avaleha*
 - *Kharjura, Vetraka, Karira, Draksa, Trivrit, Sriparni* with *Sita*-*shrutsheeta*
- *Kashaya* (Herbal infusions):
 - Tender leaves of latex trees, *Bisa, Jiraka, Nagapuspa, Patra, Ilvalu, Sitasariva, Padamaka*.
 - Addition of *Yasti* and *Utpala* for a cooling effect.

6. Management of Dhvamasaka and Vikshaya

6.1 *Dhvamasaka* Symptoms

- Excessive salivation, dry throat, sound intolerance, excessive sleep and drowsiness.

6.2 *Vikshaya* Symptoms

- Heart and throat diseases, mental confusion, vomiting, body pain, fever, thirst, cough, headache.

6.3 Treatment

- Similar to *Vatika Madatyaya* management.
- Therapies: *Basti* (medicated enema), *Sarpi* (ghee-based formulations), *Ksheera* (milk-based therapy).
- External applications: *Abhyanga* (oil massage), *Udwartana* (dry powder massage), *Pana* (internal consumption of medicated substances).

7. Ayurvedic Principle for Treating Madatyaya (AUD)

- *Kashyapa* states that *Madatyaya* is an *Amaja* condition (due to undigested toxins).
- It is *Tridoshaja*; hence, treatment should begin with the predominant *Dosha*.
- If all *Doshas* are equally aggravated, start with *Kapha*, then *Pitta*, and finally *Vata*.

CONCLUSION

Alcohol addiction poses significant health and social challenges, necessitating comprehensive management strategies. While modern medical treatments focus on symptomatic relief and rehabilitation, Ayurveda provides a holistic and personalized approach targeting the root cause of addiction. Classical texts outline systematic detoxification processes, herbal remedies, and psychological interventions that address both the physical and mental aspects of alcohol dependence. The classification of *Madatyaya* based on *Dosha*

involvement allows for individualized treatment, enhancing therapeutic efficacy. Integrating Ayurvedic principles with modern de-addiction therapies can potentially improve recovery rates and reduce relapse risks. Further research and clinical trials are essential to validate the effectiveness of Ayurvedic interventions in alcohol addiction management. Ayurveda's time-tested methodologies offer a promising avenue for addressing AUD and promoting overall well-being.

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