

## A HOLISTIC AYURVEDA INTERVENTION IN ALCOHOL USE DISORDER: A CLINICAL CASE STUDY

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### ABSTRACT

**Introduction:** Alcohol Use Disorder (AUD) poses a significant global health burden, often requiring comprehensive and individualized treatment approaches. This case study explores the efficacy of an integrative Ayurvedic protocol in the inpatient management of a patient with chronic AUD, aiming to address both the physical and psychological dimensions of the condition. Ayurveda offers a profound and holistic understanding of substance abuse, including alcoholism, addiction, and withdrawal, conceptualizing them primarily under the headings of Madatyaya, Panapkrama, and the principle of Oka Satmya. **Methods.** A 45-year-old male diagnosed with AUD was admitted to an Pt. Khushilal Sharma govt. Ayurveda college, Vish Chikitsa IPD for 14 days. The multi-faceted treatment regimen included internal Ayurvedic medicines for hepatoprotection and symptom alleviation, alongside targeted Panchakarma therapies (e.g., *Abhayanga*,

*Swedan*, *Shirodhara*, *Nasya*) for detoxification. The intervention also incorporated structured diet management, daily yoga and pranayama sessions, and adherence to a disciplined daily schedule. Crucially, the management focused on improving sleep hygiene, engaging in recreational therapy, practicing meditation, and providing psychological counseling to

address *Madatyaya* related symptoms like anxiety, tremors, and cravings, agitation. **Results:** Following the 14-day inpatient treatment, the patient reported substantial improvements. Subjectively, there was a notable reduction in alcohol cravings, significant enhancement in sleep quality, and a decrease in anxiety levels. Objectively, a visible reduction in tremors was observed, and follow-up assessments indicated positive trends in liver function. The patient exhibited strong adherence to the prescribed regimen, indicating good acceptance of the holistic approach. **Conclusion:** This case study suggests that an integrated Ayurvedic approach, combining classical therapies with lifestyle and psychological support, offers a promising comprehensive strategy for the inpatient management of Alcohol Use Disorder. Further research is warranted to validate these findings on a larger scale.

**KEYWORDS:** Alcohol Use Disorder, *Madatyaya*, *Panapkrama*, Alcohol addiction, Alcohol withdrawal.

## INTRODUCTION

Alcohol addiction, clinically termed Alcohol Use Disorder (AUD), represents a significant global health crisis. Epidemiological data highlight its widespread prevalence and substantial burden. In 2019, an estimated 400 million people aged 15 years and older worldwide lived with AUD, with 209 million experiencing alcohol dependence. Alcohol consumption was directly responsible for 2.6 million deaths globally in 2019, with the highest rates observed in the WHO European and African regions. Notably, a disproportionate number of these deaths (13%) occur in younger individuals aged 20–39 years, affecting men more frequently than women across all age groups. AUD is classified as a mental and behavioral disorder in the International Classification of Diseases (ICD-11) by the World Health Organization (WHO) and in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) by the American Psychiatric Association. These classification systems define AUD by a problematic pattern of alcohol use leading to clinically significant impairment or distress, characterized by a range of symptoms including craving, loss of control over drinking, continued use despite adverse consequences, and withdrawal symptoms, with severity ranging from mild to severe based on the number of criteria met. Alcohol Use Disorder (AUD) can cause severe diseases across many organ systems, including liver conditions (fatty liver, hepatitis, cirrhosis), heart issues (cardiomyopathy, hypertension), pancreatitis, neurological damage (Wernicke-Korsakoff, dementia), various cancers, and weakened immunity. *Madatyaya* arises due to *atiyoga* (excessive use) of *Madya* (alcoholic beverages), leading to derangement of Vata and

Pitta doshas, along with depletion of Rasa, Rakta, Majja Dhatus, and impairment of Manovaha srotas. Symptoms such as tremors, insomnia, hallucinations, anxiety, and fatigue observed in AUD are strikingly similar to those outlined under *Madatyaya*. Ayurveda offers a vital intervention for AUD because it provides a holistic approach that addresses the mind, body, and spirit. Unlike conventional treatments often focused solely on symptoms, Ayurveda considers the root causes of addiction, aiming for sustained well-being through detoxification, personalized internal medicines, lifestyle modifications, and psychological support.

### AIM AND OBJECTIVE

1. To establish an evidence-based framework for understanding and managing Alcohol Use Disorder (AUD) and its withdrawal through a holistic Ayurvedic approach.
2. Develop a standardized Ayurvedic diagnostic protocol for AUD and withdrawal.
3. Create a comprehensive Ayurvedic therapeutic protocol for alcohol de-addiction.

### MATERIAL AND METHOD

This article's content and the developed treatment protocol draw upon a comprehensive range of sources. These include personal clinical experiences and peer-reviewed clinical studies found in indexed journals. Our literature search encompassed databases such as the AYUSH Research Portal, Journal on Web, and PubMed, alongside various specialized journal websites dedicated to alcohol addiction, withdrawal manifestations, and management. For the Ayurvedic perspective, we referenced classical Ayurvedic Samhitas including Charaka Samhita, Sushruta Samhita, Ashtanga Hrudayam, Sarangadhara Samhita, and Vangsen Samhita, along with their respective commentaries. Modern medical understanding was primarily derived from authoritative texts like Harrison's Principles of Internal Medicine and the Oxford Textbook of Medicine, among other relevant publications.

### Clinical Presentation

The patient arrived exhibiting classic signs of alcohol withdrawal, including hand tremors, heightened agitation, significant anxiety, nausea, vomiting, profuse sweating, and severely disrupted sleep. Clinically, he appeared noticeably anxious and irritable, with a markedly reduced appetite. His AUDIT score of 34 confirmed severe alcohol dependence.

### Diagnosis

Acharya's Trividha Parikshan—comprising Darshan (Inspection), Sparshan (Palpation), and Prashna (Questioning)—provides the foundational framework for examining patients with addiction. Among these, Prashna (Questioning) stands out as a crucial tool for accurately assessing the severity of alcohol addiction. To quantify this severity, the Alcohol Use Disorders Identification Test (AUDIT) is utilized.

From an Ayurvedic standpoint, he presented with a medium body build, low mental strength (Avara Satwa), and diminished overall physical strength (Avara Rogi Bala). Both his food intake capacity (Abhyavaharana Shakti) and digestive capacity (Jarana Shakti) were found to be low. He described experiencing Vibandha (constipation/stiffness), Avsaad (depression/low mood), and Sphuranam (twitching/tremors) based on these findings, the diagnosis was Alcohol Use Disorder (AUD), aligning with the Ayurvedic concept of Madatyaya.

### **Assessment of Ayurvedic Parameters (Madatyaya Symptoms)**

*Dosha-Vata +Pitta+Kapha*

*Dooshya-Rasa, Rakta*

*Agni-Manda*

*Koshta-Madhyama*

### **Prakruthi**

*Shareerika prakruti-Vata, kapha*

*Manasikaprakruti -Rajas, Tamas*

### **Treatment Protocol followed**

A comprehensive Ayurvedic treatment protocol for a patient with Madatyaya (Alcohol Use Disorder), encompassing both symptomatic relief and holistic well-being, would involve a multi-pronged approach. This protocol aims to address the physical, mental, and spiritual imbalances caused by alcohol abuse and promote sustainable recovery.

- Acute Withdrawal Management (Initial Phase) - an integrated Ayurvedic approach would focus on pacifying exacerbated Doshas (primarily Vata and Pitta) and supporting organ function.
- 1. Shaman chikitsa
- 2. Shodhan chikitsa
- 3. Yog and meditation
- Dincharya (Daily routine)

- Psychological Counseling (Satvavajaya Chikitsa)
- Diet (Ahara)
- Sleep Hygiene (Nidra Vidhi)
- Recreational Therapy (Chikitsa-pratisanskara)
- Follow-up and Relapse Prevention

**Table 1: Internal Medications- Shaman Chikitsa.**

S.No.	Drug	Dose	Time	Rationale
1	<i>Muktashukti</i>	250mg	BD	<i>VataPittahara,</i>
	<i>Vidarikandachurna</i>	2gm		<i>Hridya, brahaniya, rasayana,</i> Anticraving activity
	<i>Kronchbeejachurna</i>	3gm		Supporting mental health, reduce the fatigue & tremors
	<i>Ashwagandha churna</i>	1 gm		<i>Deepana-Pachana, Vata-Kapha</i>
2	AyurvedicLiver tonic	2 tsf	BD	<i>Yakrit prasadana</i>
3	<i>Arogyavardhinivati</i>	2tablet	BD	<i>Amavishahara, Pachana,</i> <i>shrotosodhaka,</i> <i>balancetridosha</i>
4	<i>Shivaksharpachanachurna</i>	3gm	BD	<i>Amapachana,</i> <i>Agnideepan Vataanulomaka</i>
5	<i>Drakshasava</i>	15 ml	BD	<i>Vata-Pitta shamak</i> <i>Anulomana, Agnideepana &amp;</i> <i>Pachana</i>
6	<i>Saraswatarishta</i>	15 ml	BD	<i>Medhya, Nidrajanaka, Balya,</i> <i>Rasayana</i>

**Table 2: Treatment procedures- Shodhan Chikitsa.**

S.No.	Procedure	Day	Rationale
1	<i>Sarvang Abhyanga</i> ( <i>Mahanarayana oil</i> )	7	<i>Vatapitta shamana</i>
2	<i>Mradu Nadi sweda</i> ( <i>Dashmool kwath</i> )	7	<i>Shroto shodhak</i> <i>Vatahara</i>
3	<i>Shirodhara (Jatamansi kwath)</i>	7	Calmness of mind Enhances sleep, alleviating anxiety
4	<i>Nasya (Jyotishmati taila)- 6 drops each nostrils</i>	7	Vata kapha shamak

**Table 3: Yog and meditation.**

Category	Practice name	Purpose / Therapeutic Benefit
<b>Asana</b>	Shashankasana (Rabbit Pose)	Calms the mind, reduces anger and anxiety, improves emotional control
	Paschimottanasana (Seated Forward Bend)	Reduces cravings, balances nervous system, enhances introspection
	Setu Bandhasana (Bridge Pose)	Stimulates serotonin production, strengthens spine and nerves
	Viparita Karani (Legs-up-the-wall)	Improves blood flow to brain, promotes mental calmness
<b>Pranayama (Breathwork)</b>	Nadi Shodhana (Alternate Nostril Breathing)	Balances right-left brain, reduces craving, detoxifies mind and body, Purifies nadis, relieves anxiety, strengthens willpower
	Bhramari (Bee Breath)	Reduces anger, emotional instability, improves focus
	Sheetali (Cooling Breath)	Calms body heat, soothes mind, helps with withdrawal symptoms
<b>Meditation</b>	Om Chanting / Mantra Japa	Soothes the mind, aligns thought patterns, invokes spiritual strength
<b>Lifestyle Integration</b>	Sankalpa (Resolve)	to affirm the intent to heal and recover

**Table 4: Dincharya (Daily regimen).**

Time	Activity	Purpose / Benefit
6:30AM	Wake up (Brahma Muhurta)	Aligns with natural rhythms; promotes clarity, peace of mind
7:00 AM	Tongue scraping, brushing, oil pulling	Removes toxins (Ama), refreshes mouth, improves digestion & oral health
7:00 -7:30AM	Bowel movement – Shouch karma	Encourages elimination, calms Vata, supports nervous system
8:00–9:00AM	Yoga (Asanas + Pranayama) Meditation / Om Chanting	Stress relief, emotional balance, improves willpower (See Yoga table above). Improves self-awareness, reduces anxiety, stabilizes mind
9:00-9:30 AM	Light sattvic breakfast (Moong dal, fruits, warm milk etc.) with medicine	Nourishes brain, reduces toxins, balances doshas
10:00 -12AM	Abhyanga, Swedan and shirodhara (PK therapies)	
12:00 – 1:00 PM	Productive Work / Engaging activities	Helps rebuild routine, avoids idleness (triggers for relapse)
1:00-1:30	Warm water Bath	
1:00–1:30 PM	Balanced lunch (vegetable khichdi, ghee, buttermilk)	Supports liver function, easy to digest
1:30–2:00 PM	Light walk or 15-min rest	Aids digestion, calms mind
2:00–5:30 PM	Work / Productive engagement	Encouraged: Creative or purposeful tasks
5:30–6:00 PM	Evening tea (herbal) like Brahmi/Tulsi	Calms mind, reduces urge for alcohol

6:00–6:30 PM	Evening walk / Light yoga / Pranayama	Reduces stress, promotes dopamine balance
6:30–7:00 PM	Early, light dinner (soup, steamed veggies)	Prevents Ama, helps with sleep and detoxification
7:30–8:00 PM	Yoga Nidra / Mindfulness meditation and medicine	Reprograms subconscious, reduces withdrawal symptoms
8:00–8:30 PM	Journaling / Light reading	Emotional regulation, helps monitor recovery journey
8:30–9:00 PM	Prepare for bed – self-care, aromatherapy	Improves sleep quality
9:00 PM	Sleep	Promotes brain repair, mental stability, and liver regeneration

- **Psychological Counseling (Satvavajaya Chikitsa)**

Focuses on strengthening the mind's control over harmful impulses through techniques like introspection, reassurance, self-discipline, and spiritual support. It helps break psychological dependency on alcohol by cultivating inner willpower, improving self-esteem, and managing stress, guilt, or trauma that often trigger substance use.

- **Diet (Ahara)**

A light, sattvic, nourishing diet is essential in Madatyaya management to repair liver damage, improve digestion, and reduce cravings. Easily digestible foods like moong dal, rice, vegetables, ghee, and buttermilk help balance aggravated doshas and reduce Ama (toxins), supporting both physical and mental detoxification.

- **Sleep Hygiene (Nidra Vidhi)**

Proper sleep hygiene helps restore circadian rhythm disrupted by alcohol use. Going to bed by 9–10 PM, avoiding screens before sleep, using calming drug and therapies (ashwagandha and shirodhara), and practicing meditation or Yoga Nidra ensure deeper rest, emotional healing, and better resilience against relapse.

- **Recreational Therapy (Chikitsa-pratisanskara)**

Chikitsa-pratisanskara emphasizes engaging the patient in creative, joyful, and meaningful activities to recondition the mind and shift attention away from addictive behaviors. It includes hobbies like painting, gardening, music, and nature walks, helping rebuild social identity, boost dopamine naturally, and enhance motivation for recovery.

- **Follow-up and Relapse Prevention**

Regular follow-ups help track progress, reinforce positive habits, and timely address any emotional or physical setbacks. Relapse prevention involves counseling, family support,



mindfulness practices, and ongoing Satvavajaya therapy. Patients are taught coping skills to handle triggers and stressors that may otherwise lead to relapse.

### Assessment of Alcohol Withdrawal

Symptoms are derived from the CIWA-Ar (Clinical Institute Withdrawal Assessment of Alcohol Scale – Revised). Among these, tremors, anxiety, orientation, and profuse sweating are assessed through Darshana (inspection) and Sparshana (palpation) Pariksha, while tactile disturbances are specifically evaluated by Sparshana and Prashna (interrogation). Other symptoms like nausea, vomiting, visual and auditory disturbances, orientation issues, anxiety, agitation, insomnia, confusion, craving, and headache are primarily assessed through Prashna Pariksha (interrogation or questioning).

**Table 5: Assessment: CIWA-Ar Scale.**

Symptom	Day 1	Day 7	Day 14
Nausea/Vomiting	4	1	0
Tremors	6	3	1
Anxiety	4	2	0
Hallucination (Auditory)	2	1	0
Hallucination (Visual)	3	1	0
Paroxysmal sweating	3	1	0
Sleep Disturb.	7	3	1
Orientation	1	0	0
Headache, fullness in head	5	3	0
Agitation	3	1	0
Total Score	38	16	2

### Outcome

The patient has shown significant improvement in overall health, with notable progress in sleep patterns, tremors, agitation, headache, appetite, and emotional stability. The CIWA-Ar (Clinical Institute Withdrawal Assessment for Alcohol) score dramatically decreased from 38 to 2, indicating a substantial reduction in withdrawal severity. Within just seven days, there was a marked reduction in withdrawal symptoms, and the patient experienced complete relief from the symptoms of *Madatyaya* (alcohol use syndrome).

### DISCUSSION

The study demonstrated a significant improvement in the withdrawal symptoms and overall quality of life in patients with Alcohol Use Disorder (AUD) through a comprehensive Ayurvedic and integrative approach. The following formulations played crucial roles:



**Mukta Shukti**- being rich in bioavailable calcium and possessing potent Pittahara and Sheetala properties, effectively mitigated alcohol-induced hyperacidity, nausea, and belching by pacifying aggravated Pitta and providing mucosal soothing. It helped reduce gastrointestinal discomfort, acidity, and anxiety, which are common during alcohol withdrawal. **Ashwagandha**- Ashwagandha's *Rasayana* (rejuvenative) and adaptogenic effects were notable in reducing stress, anxiety, fatigue, and sleep disturbances. It stabilizes the hypothalamic-pituitary-adrenal (HPA) axis, which is often dysregulated in chronic alcohol users. **Vidarikand**-With its nourishing (Brimhana) and cooling (Shita Virya) properties, Vidarikand helped restore physical vitality and prevent emaciation. Its soothing action supported liver health and alleviated burning sensations. **Krounchbeej**-a known natural source of L-DOPA, contributed to dopamine balance, addressing low motivation, depression, and cravings during de-addiction. It supported neuromuscular tone and improved mood. Combination of Mukta Shukti, vidarikand, ashwagandha, krounchbeeja churna, collectively acted on key pathophysiological features of Alcohol Use Disorder such as gastric irritation, neuropsychological instability, tissue depletion, and impaired digestion. **Liver Tonic**-formulations supported detoxification, enhanced hepatic regeneration, and helped normalize liver function tests. This was critical in managing alcohol-induced hepatotoxicity. **Drakshasava**-As a fermented Ayurvedic formulation, Drakshasava improved digestion and acted as a mild anxiolytic. Drakshasava was incorporated for its Yakrituttejaka and Raktaprasadaka actions. The formulation helped detoxify the liver, enhance appetite, and improve overall vitality through its Deepana, Rasayana, and antioxidant properties. It helped restore energy and supported a return to regular appetite and sleep. **Saraswatarishta**- known for its Medhya (nootropic) action, Saraswatarishta improved cognitive function, concentration, and reduced restlessness and insomnia, frequently seen during withdrawal. **Shivakshar Pachana Churna**- This formulation helped in relieving bloating, indigestion, and toxicity, common in chronic alcohol consumers, and contributed to gut detoxification and appetite regulation.

**Abhyanga with Mahanarayan Taila** -Daily oil massage using Mahanarayan Taila provided calming effects on the nervous system, reduced muscle stiffness, and improved blood circulation. It induced a parasympathetic state, helping relieve tremors and anxiety. **Swedana with Dashmool Kwath**- helped in eliminating Ama (toxins), reducing musculoskeletal pain, and promoting a sense of lightness and mental clarity, which aided in the withdrawal process. **Shirodhara with Jatamansi Kwath**- The meditative flow of Jatamansi decoction over the

forehead had profound calming effects, reducing panic attacks, insomnia, palpitations, and balancing the Prana Vata and Sadhaka Pitta. **Nasya with Jyotishmati Taila**- Administration of Jyotishmati oil through nasal route supported neuro-cognitive functions, improved memory, and helped in regulating the disturbed mental faculties. **Yogic Practices**- Practices such as Nadi Shodhana, Bhramari, and Sheetali Pranayama along with Asanas like Vajrasana, Shavasana, and Trikonasana brought balance to the Autonomic Nervous System, reduced withdrawal symptoms, and improved emotional regulation. **Meditation and Mindfulness**- Daily meditation helped develop mental awareness, reduce cravings, and improve self-control, which is essential in maintaining abstinence and preventing relapse. **Counselling**- Regular psychological counselling provided emotional support, addressed underlying trauma or stress, and empowered patients to recognize triggers, enhancing their ability to cope with social and psychological stressors. **Sleep Hygiene**- Implementation of sleep hygiene protocols like fixed bedtime, no screen exposure before sleep, and warm milk with nutmeg helped significantly in improving sleep latency and duration, crucial during withdrawal phases. **Dinacharya (Daily Routine)**- A structured daily regimen helped synchronize the body clock (circadian rhythm). Waking up during Brahma Muhurta, regular meal timings, and self-care activities brought back discipline, positivity, and biological rhythm—vital in reversing alcohol dependency patterns.

*Overall Impact and Holistic Outcome*- The multidimensional approach that combined herbal formulations, Panchakarma therapies, yogic interventions, counselling, and daily routine management showed remarkable effectiveness in managing physical withdrawal symptoms, psychological cravings, insomnia, anxiety, and social reintegration. The integration of traditional Ayurvedic knowledge with behavioral therapies proved to be a sustainable, side-effect-free, and patient-centric pathway to healing from AUD/Madatyaya. Future randomized trials with larger samples and biomarkers will further validate this integrative protocol.

## CONCLUSION

Holistic Ayurvedic management offers a multidimensional approach to addressing Alcohol Use Disorder (Madatyaya) by treating not just the symptoms, but the root cause of the imbalance in the body and mind. Ayurveda emphasizes detoxification, rejuvenation, mental stability, and lifestyle regulation. This approach helped the patient in this case overcome severe alcohol withdrawal symptoms effectively and safely. Collectively, this holistic treatment plan over 14 days led to a dramatic reduction in withdrawal symptoms. The

patient's CIWA-Ar score dropped from 38 (severe) to 2 (minimal), indicating almost complete recovery from physical and psychological withdrawal without the use of sedatives or synthetic drugs. This case affirms that Ayurvedic principles, when applied holistically, offer a safe, effective, and sustainable method for managing and overcoming alcohol addiction.

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