



Ayurvedic Management of Alcohol Use Disorder: A Case Study on the Efficacy of Classical Madatyaya Chikitsa

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Abstract :

Introduction: Alcohol dependence has long been recognized as a significant public health issue, impacting individuals across physical, mental, and social aspects. Approximately 2.4% of the global population suffers from alcohol use disorder, leading to over 3 million deaths annually, and 5.3% of total fatalities. This condition can result in severe complications affecting various bodily systems, including the nervous, cardiovascular, gastrointestinal, and respiratory systems.

Main Clinical Findings and Diagnosis: A case study involved 49-year-old male ex-army-personnel with a 20-year history of alcohol dependency, who sought treatment at ayurveda hospital, presented with sleep initiation difficulties, alcohol cravings, and anxiety. His lab results indicated elevated direct bilirubin, SGOT, SGPT, triglycerides, and VLDL cholesterol levels.

Intervention: He was treated on the lines of *madatyaya chikitsa sutra* which includes *kaphasthana shodhana* by classical *vamana* followed by *pitta* and *vata shamana kriya*.

Outcome and Conclusion: The patient exhibited notable improvements in sleep quality, reduced alcohol cravings, and diminished death anxiety, alongside better blood parameter readings.

Key-words: Alcohol dependence, Case study, *Madatyaya*, *Shodhana*

I. INTRODUCTION

Alcohol Dependence is an age-old social evil affecting about 2.4% globally and approximately 8.7% of the Indian population.^[1] It is a chronic relapsing disorder characterized by compulsive alcohol use, loss of control over intake, and withdrawal symptoms upon cessation, often associated with complications both medically such as gastritis, cirrhosis of liver, even leading to liver carcinoma and liver failure. It also effects central nervous system leading to complications such as peripheral neuropathy, delirium tremens, rum fits, alcoholic hallucinosis even leading to suicidal ideation. Socially, it may lead to marital disharmony, occupational problems, criminality to name a few. In *Ayurveda*, alcoholic

dependence might be studied under the lines of *madatyaya* where-in all the *tridoshas* are aggravated along with impairment of *manasika doshas*. The treatment protocol of *madatyaya* aims at cleansing of *kaphasthana* followed by *pitta* and *vata prashamana kriya* as told by *Charaka acharya*. This case report aims to explore the effectiveness of the said treatment protocol in present time.

PATIENT INFORMATION:

A well-built male patient aged 49 years, ex-army personnel by profession, with history of alcohol dependence for 25 years visited ayurveda hospital presented the complaints of difficulty in initiation of sleep, increased consumption of alcohol for 3 years and fear of death due to consequences of alcohol consumption for 2 months. Two months back, the patient has been diagnosed with hypertension which has made the patient worrisome.

PERSONAL HISTORY:

The patient consumes mixed diet and has good appetite. The sleep curriculum is impaired with delayed initiation of sleep followed by approximately 2 hours of day sleep. There is a notable family background of alcohol dependence, with the father and two older siblings identified as alcoholics. The patient was ex-army personnel who retired 3 years ago and has been living a sedentary life since. This marks the sudden increase in the alcohol consumption with a daily consumption up to 400ml of whiskey which has 40% alcohol by volume.

CLINICAL FINDINGS:

The patient was well-built weighing 96.8 kgs and about 170cm tall. The BMI calculated is 33.5 kg/m². On mental status examination, the patient was properly groomed and the odour of alcohol was noted. CAGE (Cut-down, Annoyed, Guilty, Eye-opener) was found to be positive in all domains. Alcohol Use Disorder Identification Test (AUDIT) was taken which likely suggests addiction with a total score of 32 out of 40.^[2] CIWA-Ar (Clinical Institutional Withdrawal Assessment for Alcohol) scale was also taken that suggests severe alcohol withdrawal state scoring 25.

INVESTIGATIONS:

The blood parameters taken at the time of admission shows a significant increase in the direct bilirubin level (1.3mg/dl), SGOT (58.3 U/L), SGPT (52.6 U/L), triglycerides (348.5 mg/dl) and VLDL (69.7 mg/dl).

THERAPEUTIC INTERVENTION WITH TIMELINE:

After assessing the *roga bala* and *rogi bala*, the patient was posted for classical *vamana* with *deepana pachana* done for 3 days, *snehapana* done for 4 days, *bahya snehana* for 1 day followed by *vamana karma*. After *vamana karma*, *samsarjana karma* was followed for 5 days. The details of the therapeutic intervention is given in the table 1.

Table 1 – Details on the therapeutic intervention and the timeline

THERAPEUTIC INTERVENTION	TIMELINE	PROCEDURES DONE
<i>Deepana Pachana</i>	20.08.2024 to 22.08.2024	<ul style="list-style-type: none"> • <i>Sarvanga udwartana</i> followed by <i>Dashamoola Qwatha parisheka</i> • <i>Takradhara</i> • <i>Panchakola phanta</i> 50ml TID X 3 days
<i>Snehapana</i>	23.08.2024 to 26.08.2024	<ul style="list-style-type: none"> • <i>Moorchita ghrita</i> - • 40ml (Day 4) • 80ml (Day 5) • 120ml (Day 6)

		<ul style="list-style-type: none"> • 200ml (Day 7)
<i>Vishramakala Bahya snehana</i>	27.08.2024	<ul style="list-style-type: none"> • <i>Sarvanga abhyanga</i> with <i>moorchita taila</i> followed by <i>parisheka</i> with <i>dashamoola Qwatha</i> (Day 8)
<i>Vamana karma</i>	28.08.2024	<ul style="list-style-type: none"> • <i>Sarvanga abhyanga</i> and <i>parisheka</i> followed by <i>vamana karma</i> (Day 9) with • Milk (1 litre) • <i>Madana pippali</i> 6gms • <i>Yastimadhu</i> 3 gms • <i>Nimba churna</i> 3 gms • <i>Vacha</i> 3 gms • <i>Yastimadhu Phanta</i> (5 litres) • Salt water (2 litres)
<i>Samsarjana karma (Madhyama Shuddhi)</i>	29.08.2024 to 02.09.2024	<i>Ganji</i> diet on the 1 st day followed by <i>vilepi</i> for 2 days, <i>mudga yusha</i> the next 2 days

OUTCOMES AND FOLLOW-UP:

The patient had 6 *vegās* and 4 *upavegās* at the end of *vamana karma*. *Pittaanta* was observed and the *maniki lakshana* being 2 litres indicating *madhyama shuddhi*. Blood investigations except for lipid profile were repeated. The objective parameters were assessed after *vamana karma* which showed decrease in weight where the final weight at the end of the treatments being 92.0 kgs and overall BMI being 31.8 kg/m². LFT was done after the treatment which shows significant decrease in direct bilirubin level (0.7mg/dl), SGOT (34.7 U/L), SGPT (35.1 U/L). Alcohol Use Disorder Identification Test (AUDIT) came down from 32 to 24. Subjectively, patient has observed improvement in the quality of sleep, decreased anxiety, decreased craving for alcohol and patient had an over-all sense of well-being. The patient was advised to follow *samsarjana karma* with *ganji* diet on the 1st day followed by *vilepi* for 2 days, *mudga yusha* the next 2 days. The patient was also advised to avoid deep-fried food items, excessive intake of curd, excessive spicy food items along with regular exercise that improves the cardiac health. The patient was asked to visit for regular follow-ups every week to ensure prevention of recurrence of alcohol intake and to strengthen the cognitive and behavioural domains in the patient. The discharge medication given are -

- *Kalyanaka ghrīta* 10ml BD before food and sufficient quantity as *shiro pichu*.

After 15 days, lipid profile was repeated which shows a significant reduction in triglycerides (247.9 mg/dl) and VLDL (45.2 mg/dl). Regular follow-ups were made for 2 months which showed a positive outcome in the physical, mental and social domains of the patient.

DISCUSSION:

Madya has very similar qualities with *visha* and contrary attributes to the qualities of *ojas* and causes dullness of *buddhi* which can be taken as the cause of addiction.^[3] *Madatyaya* has the involvement of not only *shareerika doshas*, but also *manasika doshas* i.e., *rajas* and *tamas*. This can be seen in the current case study where the patient had complaints of disturbed sleep and anxiety about his health. Contemporary researches on alcoholism show both structural and functional changes in the brain of alcoholics.^[4]

Charaka acharya has mentioned the cleansing of the *kapha sthana* as the point of focus first.^[5] This was achieved by classical *vamana* where-in *snehapana* was done with *moorchita ghrita* for the purpose of *dosha utkleshana* followed by *bahya snehana* with *sarvanga abhyanga* with *moorchita taila*.

Similar to *visha*, *madya* also has *vyavaayi* and *vikaasi gunas* due to which *madya* gets circulated all over the body. *Snehapana* followed by *Vamana* helps in bringing these accumulated toxins into the *aamaashaya* and due to the *agneya* and *vaaayuvya gunas* of *vaamaka dravya* these toxins are expelled out without undergoing any *paaka*.^[6]

Alcohol interacts with various neurotransmitter systems in the brain, particularly those involved in reward and stress pathways, leading to its immediate pleasurable effects. Over time, chronic alcohol use alters neuronal function, contributing to the development of alcoholism. These changes primarily affect the mesolimbic dopaminergic system, which governs reward processing, and the Hypothalamus-Pituitary-Adrenal (HPA) axis, which regulates stress responses. Dysregulation of these systems is a key factor in the cycle of addiction.^[7] *Vamana* might be indicated as a source of stimulation of vagus nerve that is linked to activation of gut micro-biota influencing both the mesolimbic dopaminergic system and also the Hypothalamus-Pituitary-Adrenal axis. This is directly linked to reward processing and stress response which is considered as the major cause of alcoholism.

Kalyanaka ghrita, one of the most widely used *Medhya ghrita*, has a total of 28 ingredients that act as *pitta* and *vata shamana*.^[8] *Shiro pichu* placed on the bregma point which is considered as the *sthana* of *adhipathi marma* results in better absorption of the drug by the action of *bhrajaka pitta*.

Weekly follow-ups done with an intention of the behavioural change in the patient with goal-oriented outcomes expected at the end of every week which are listed in table 2.^[9]

Table 2 – Expected outcomes for every week by the patient

Week 1	Rapport building
Week 2	Retrospective self-realisation on ill-effects experienced due to alcohol consumption
Week 3	Motivational Psychotherapy - Techniques to tackle the cravings for alcohol
Week 4	Over-all lifestyle modification over physical, mental and also social domains of health
Week 5	Summary of the weekly follow-ups done

CONCLUSION:

Alcohol dependence is an age-old social evil affecting the health in all the domains. *Ayurveda* treatment plan based on *madatyaya chikitsa sutra* has given a better result in the above discussed case study. Integrated follow-up measures have provided long term de-addiction benefits.

PATIENT PERSPECTIVE:

The patient felt subjective improvement in the symptoms and was satisfied with treatments and did not report any adverse reactions as such.

DECLARATION OF PATIENT CONSENT:

Authors certify that they have obtained patient consent form, where the patient has given his consent for reporting the case along with the images and other clinical information in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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3. Declaration of patient consent

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There are no conflicts of interest.

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