



AYURVEDIC MANAGEMENT OF ALCOHOL USE DISORDER – A CASE REPORT

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ABSTRACT

Alcohol Use Disorder is the continuous use of alcohol despite evidence of harm and repeated attempts to cut down the use. It includes tolerance to alcohol which means a higher amount is needed progressively to have the same effect and a characteristic cluster of mental and behavioural symptoms appears when one does not take alcohol i.e., withdrawal. It is a very big rising health and social problem in the world. According to W.H.O., 38.3% of the global population consumes alcohol. The lifetime risk of an Alcohol Use Disorder in most countries is 10- 15% for men and 5-8% for women because many drinkers occasionally imbibe excess. A 43-year-old male chronic and heavy alcohol drinker for 12 years presented in the Manassanthi OPD with symptoms of insomnia, anxiety, uneasiness, nausea, tactile hallucination, tremors in fingers of hands, decreased appetite, indigestion, burning sensation in the chest region and heaviness in the stomach. There were no suicidal ideas, and no obsessions or compulsions. In Ayurveda, alcohol use disorder and its withdrawal are described under the heading of *Madātyaya*. He was treated on an IP level with a combination of Ayurvedic internal medications and panchakarma procedures for 21 days. The treatment protocol including Snehapāna, *Virecāna*, *Nasya*, *Śirodhāra*, and *Rasāyana* was administered. Also, *Satvāvajaya* methods including *Yoga*, and individual and family counselling methods were provided. There was a significant improvement in the Clinical Institute Withdrawal Assessment of Alcohol revised scale (CIWA-Ar score) and Q-LES-Q-SF questionnaire after the intervention.

Keywords: Alcohol use disorder, *Madātyaya*, CIWA-Ar scale, Q-LES-Q-SF questionnaire, Ayurveda

INTRODUCTION

Taking alcohol for a long duration, one may develop alcoholism, and reduction of it causes an alcohol withdrawal syndrome. Both conditions cause remarkable damage to human health and lives. Alcohol dependency is a cluster of physiological, behavioural, and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value¹. Alcohol withdrawal refers to symptoms that may occur when a person who has been drinking too much alcohol on a regular basis suddenly stops drinking alcohol². Nausea and vomiting, tremors, paroxysmal sweats, anxiety, agitation, tactile disturbances, auditory disturbances, visual disturbances, headache, fullness in the head, orientation and clouding of sensorium, delirium tremens, and withdrawal seizures are the presentations of alcohol withdrawal syndrome. Intervention, detoxification, and rehabilitation are the three essential steps of management³. In DSM V, alcohol abuse and alcohol dependence are integrated into a single entity, ie. Alcohol Use Disorder⁴. The etiological factors of alcohol dependency are epigenetic, psychological, social, biological, and environmental factors, along with genetic susceptibility, which is paving increased susceptibility, to all sorts of alcoholism⁵. The basic cause of alcoholism is resulting from the maladaptive coping response due to lowered self-esteem, so as to face high-risk situation⁶. Alcohol Use Disorder in Ayurveda can be understood from the perspective of *Madātyaya*. In *Madātyaya*, all three *Doṣas* may be involved, but the permutation may vary as per the causative factors⁷. So, management should be aimed primarily at pacifying the most predominant *Doṣa*. The *ama* stage if identified may be managed initially and get rid of. If all the *Doṣas* are aggravated equally then, *Kapha* should be pacified first, followed by *Pitta* and *Vatha* respectively. The chronic conditions are usually of *Pitta* and *Vatha* aggravation and need its management⁸. *Acarya Vagbhata* explains the *Madātyaya* treatment to be performed for up to 7 or 8 days so as to overcome the

ill effects, which is quite correct in the case of alcohol withdrawal syndrome⁹. It has been explained that the symptoms due to localization of *Madya* in improper channels will be exhibited only for 7 or 8 days and treatment is needed for those days⁹. Mild to moderate symptoms on stoppage of consumption of alcohol subsides by 7 or 8 days, with treatment from our experience. But in the case of Alcohol dependence, one has to adopt *Sodhana* procedures followed by appropriate *Rasayana* such as *Medhya rasayana*, so as to attain enhancement¹⁰.

CLINICAL PRESENTATION WITH HISTORY

A 43-year-old Hindu male patient hailing from Malappuram presented in the Manassanthi OPD along with his wife with complaints of insomnia, anxiety, uneasiness, nausea, tactile hallucination, tremors in fingers of hands, decreased appetite, indigestion, burning sensation in the chest region and heaviness in the stomach. At the age of 30, he started to intake alcohol due to peer group pressure. Initially, there was only occasional use, but later it developed into frequent use of alcohol. 8 years before he started drinking in the morning and showed destructive behavior. Sometimes, he was found on the roadside. 2 years before due to covid lockdown, he had a lack of job and increased tension. Then he used to wake up at 2 am, left home, and started drinking with his friends the whole day. He intended to stop the alcohol, but he couldn't stop by himself. So, he was admitted to the IPD of V.P.S.V Ayurveda college hospital, Kottakkal.

FAMILY HISTORY

His father was an alcoholic and died 38 years back due to excessive alcohol use and his brother also was an alcoholic. The relationship between the patient and family members was satisfactory earlier, currently, they were having a strained relationship due to his alcoholic behaviour. The interaction between siblings was adequate, they showed concern and support toward the patient, and they only worried about his alcoholic behaviour.

CLINICAL FINDINGS

General physical examination –Pulse –72/min, Heart rate –70 beats/ min, BP –120/80mmHg Respiratory rate –18/min, Weight –56Kg

MENTAL STATUS EXAMINATION

The patient was lean and adequately groomed and his look was appropriate for the age. He was comfortable about the interview and was co-operative. Eye contact was maintained, and rapport was established with ease. The psychomotor activity and speech were normal. The mood was found to be euthymic subjectively and objectively it was happy. The affect was congruent with mood. The thoughts appeared to be continuous and there were no delusions. Regarding the domain perception, there were tactile hallucinations like a pricking sensation all over the body and also elementary-type auditory and visual hallucinations were present. He was conscious and well-oriented to the time, place, and person. The attention, concentration, and abstract thinking were impaired and there was no impairment in intelligence, judgement, and reading and writing. The insight was graded as 5 as he was aware of being ill and the physical problems, and failures in familial and social adjustment were due to increased use of alcohol. But he was not ready to apply this knowledge to future situations.

LAB INVESTIGATIONS

Baseline haematological investigations, Renal Function Test, and Liver Function Tests were done, which revealed that Haemoglobin: 15.9gm%, ESR: 20/hr, Total Count: 6700cells/mm³, Fasting Blood Sugar: 78mg/dl, Total Cholesterol: 205mg/dl, Serum Creatinine: 0.4, SGOT - 92U/L, SGPT: 71U/L, Total bilirubin: 1.02mg/dl, direct bilirubin: 0.39mg/dl

TREATMENT HISTORY

5 years before, he took IP treatment for Jaundice, the records of which were not produced at the interview.

AYURVEDIC CLINICAL EXAMINATION

Daśavidha parīkṣa was performed which led to the following observations. *Shareerika prakriti* was assessed as *Vatha Pitta* and *Manasika prakriti* as *Rajasa Tamasa*. There were *pitta*-predominant features like *thrishna* (thirst), *daha* (hotness of body), *Sweda* (sweating), and *mugham sosha* (dryness of the mouth). *Vatha* predominant features such as *Shirakampa* (tremors), *Prajagara* (sleeplessness), *Parswa Soola* (pain in the thorax), and *Pralapa* were seen Also *Kapha* predominant features like *Hrillasa* (nausea) were also noticeable. He belonged to *Sadharana desha* and the *Kala* was *Visarga*. He was having *Avara satva* and both *Abhyavaharana sakthi* and *Jarana Sakti* were found to be *Madhyama*. *Manovaha srotas* was involved in the pathology and the precipitating factors of the disease were found to be peer group pressure, *chinta*, and *soka*.

DIAGNOSTIC FOCUS AND ASSESSMENT

The symptoms of the patient coincide with the diagnostic criteria of alcohol use disorder as per the diagnostic criteria mentioned in DSM 5. The assessments were done using the Clinical Institute Withdrawal Assessment of Alcohol revised scale (CIWA-Ar score)¹¹ on the 1st day, 10th day, and 21st day and using the Q-LES-Q-SF¹² questionnaire before and after treatments.

MANAGEMENT

As per the initial assessments, a treatment plan was formulated and executed as below.

The following internal medications were administered:

- 1) *Drakshadi Kashaya*¹³ – 90 ml BD, Before food
- 2) *Ajamoda arkam*¹⁴ – 15 ml + 15ml water ,BD, after food
- 3) *Swetha Shankupushpi*¹⁵ + *yashti*¹⁶ *choornam* - 1/2 tsp bd with lukewarm water ,after food
- 4) *Ksheerabala tailam* – for head

TABLE 1: TREATMENT PROCEDURES.

Treatment	Days	Medicine	Rationale	Remarks
<i>Rookshana</i>	2 days	<i>Takra</i> (1.5Ltr) + <i>Vaiswanara choornam</i> (10gm)	<i>Rukshana</i> , <i>Srotosodhaka</i> , <i>Agni vardhaka</i>	Appetite Increased Sleep improved
<i>Snehapana</i>	7 days	<i>Dhathryadi Ghrita</i> (30 -300ml)	<i>Vathapitta samaka</i> Indication in <i>Madatyaya</i>	<i>Samyak lakshana</i> attained on the 7th day (Bowel regular, Presence of <i>Sneha</i> in stool, Fatigue, <i>aruci</i> , nausea, Aversion towards ghee)
<i>Abhyanga</i> and <i>Ushmasweda</i>	3 days	<i>Dhanwantharam taila</i>	For attaining <i>vilayana</i> or <i>draveekarana</i> of <i>dhatugata dosas</i>	Patient Comfortable
<i>Virechana</i>	1 day	<i>Avipathi churna</i> - 30 gm with warm water, 6 AM	<i>Koshtha shodhana</i> <i>Pittasamana</i>	Reduction in tremors and hallucinations (7 <i>virechana vegas</i> were obtained)
<i>Nasya</i> and <i>ksheera sirodhara</i>	7days	<i>Nasya</i> with <i>ksheerabala 7A</i> 1ml each nostril <i>Ksheera sirodhara</i> with <i>panchagandha</i> and <i>usheeram</i>	<i>Urdhwanga sodhana</i> <i>Indriya prabodhana</i>	Sleep increased Relief from burning sensation in body Calm and comfortable
Yoga ¹⁷	45 minutes daily	<u>Loosening exercises</u> <u>Standing asanas</u> <ul style="list-style-type: none"> • <i>Thadasanam</i> • <i>Padahasthasanam</i> • <i>Ardha chakrasanam</i> • <i>Ardha kadichakrasanam</i> • <i>Vrukshasanam</i> <u>Sitting asanas</u> <ul style="list-style-type: none"> • <i>Vakrasanam</i> • <i>Vajrasanam</i> • <i>Sasankasanam</i> • <i>Uthana mandookasanam</i> • Tiger breathing <u>Prone position</u> <ul style="list-style-type: none"> • <i>Bhujangasanam</i> • <i>Dhanurasanam</i> • <i>Salabhasanam</i> <u>Supine position</u> <ul style="list-style-type: none"> • <i>Uthana padasanam</i> • <i>Pavana mukthasanam</i> <u>Pranayama</u> <ul style="list-style-type: none"> • <i>Kapalabhathi</i> • <i>Nadi shudhi</i> • <i>Bhrahmari</i> <u>Meditation</u> <ul style="list-style-type: none"> • <i>A'kara</i> chanting 	Control over mind Stress-reducing	Anxiety reduced Craving reduced Willpower increased Concentration increased Feeling relaxed

RESULT

TABLE 2: Clinical Institute Withdrawal Assessment of Alcohol revised scale (CIWA-Ar scale)

Symptoms	BT 1 st day	During the treatment 10 th day	At 21 st day
Nausea/vomiting	4	0	0
Tremors	5	0	0
Paroxysmal Sweats	6	0	0
Anxiety	4	3	0
Agitation	1	0	0
Tactile disturbances	3	0	0
Auditory disturbances	2	0	0
Visual disturbances	1	0	0
Headache and fullness in the head	1	0	0
Orientation and clouding of sensorium	1	0	0
Total	28	3	0

TABLE 3 : Q –LES-Q-SF questionnaire

Q –LES-Q-SF questionnaire	Before treatments	After treatments
	37	55

DISCUSSION

Ayurveda has a unique understanding of human physiology and pathology, diagnosis, and treatment. The condition was approached and managed with the principles of the management of *Madatyaya*. The initial approach was *Amapachana*, *Agnideepana*, and *Sroto-shodhana*, which is ideal in *Madatyaya*. On sudden abstinence from alcohol, *agni* which maintains the equilibrium of the body gets altered, leading to the formation of *ama*. The *ama* causes *srodhorodha* and resulting deficit in *bala*. *Hṛdaya* which is the *chetana stana* and *sthana* of functions of the mind also gets affected. The *anulomana* property of *Vatha* gets deranged and affects the functions of the body as well as the mind. These processes occur straight away and manifest as symptoms of alcohol withdrawal syndrome¹⁸ as the patient presented with the *pitta* dominant features, the treatment was planned accordingly to bring the vitiated *pitta dosha* to normalcy. The patient was administered orally *Drakshadi Kashaya* which is having *vatha pitta samana* properties and helps to reduce fatigue. *Ajamoda arka* was also given

which is *kaṭurasa* and *vipaka* and *uṣnaviryā* helps to get rid of *srotorodha* and increases appetite. A combination of *swetha sankhapushpi* and *yashti madhu choorna* was also administered which helps to attain proper sleep and calmness of mind. Considering the *vatha pittahara* nature *Ksheerabala tailam* was chosen for head to enhance sleep.

Treatment procedures including *Snehana*, *Swedana*, *Sodhana* i.e. either *Vamana* or *Virechana*, followed by *Vasthi*, *Nasya*, *Moordhni taila* ending with *Rasayana* and *Satwavajaya* measures is the algorithm of management for *Madatyaya*. Before performing *Sodhananga* *snehapana*, *Rookshana* is crucial, which subsides the associative *Kapha* or *ama* and causes *anulomana* to *Vatha*, also enhancing the *Agni*. For the same and *takram*¹⁹ and *Vaiswanara choornam*²⁰ were given. *Shodhanartha snehapana* was done with *Dhathryadi ghritha* which is a *Ghritha yoga* indicated in *Madatyaya*. As the patient had *pitta*-predominant clinical features, *Dhathryadi ghritha*²¹ was selected for *Snehapana* considering the *Vatha pitta hara* nature. The *Snehapana* was administered for 7 days. From the next day, *Abhyanga* and *Ushma sweda* were done with *Dhanwantharam taila*²² for 3 days in order

to bring about the liquefaction of *Doshas*. On a consecutive day, *Virechana* was administered with *Avipathi choorna*.²³ Properly administered *Virechana* brings about *Srothosuddhi*, *Indriya visuddhi*, and also increases the *agni*.²⁴ After *Virechana*, a reduction in tactile hallucination and tremors were noticed and sleep was also improved. Then *nasya* and *sirodhara* were done for 7 days. *Nasya* procedure purges and rejuvenates the tissues and organs of the head and neck²⁵. *Sirodhara* gives *Doshasamanatva* as well as *Indriya prasadana*.²⁶ In the procedure of *Sirodhara*, prolonged and continuous pressure due to the trickling of medicated liquid over the forehead causes tranquillity of mind and reduces stress by modulating nerve stimulation. Probably *Sirodhara* normalizes the two important neurotransmitters Serotonin and Norepinephrine, which regulates a wide variety of neuro-psychological processes along with sleep²⁷. Improvement in sleep as well as relief from the burning sensation in the body was noticed after *Sirodhara*. It is a purifying and rejuvenating therapy that eliminates toxins and mental exhaustion as well as relieves stress and any ill effects on the central nervous system. Along with the above procedures, the patient practised *Yoga* and *Pranayama* 45 minutes daily from the AYUSH Wellness centre located in our institute which helped in alleviating his symptoms and reducing his craving for alcohol. Also, the Patient and his wife were assessed and received counselling/ psychosocial interventions as per clinical needs. Individual counselling often focuses on reducing or stopping alcohol use. There was a significant improvement in the scores of the Clinical Institute Withdrawal Assessment of Alcohol revised scale (CIWA-Ar score) and Q –LES –Q –SF questionnaire after treatment.

CONCLUSION

The outcome of the ayurvedic therapy given to the patient is much encouraging. Alcohol Withdrawal Syndrome and other disorders of alcohol abuse have been mentioned in detail in the ancient texts of Ayurveda. The focus of treatment is to balance *Tridosha* (*vatha*, *pitta* & *kapha*) as well as *Triguna* (*satwa*, *raja* & *tama*) through which to provide symptomatic relief to the

patient. Ayurveda therapy including *Snehana*, *Swedana*, *Virechana*, *Nasya*, and *Sirodhara* along with oral medication is effective as well as safe for alcohol use disorder. *Satwavajaya* methods including *yoga* and counselling helped in increasing the *Manobala* so as to achieve a satisfactory quality of life. However, evaluations regarding follow-ups along with more documentation are required for the generalization of the observed results.

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