

Role of Ayurveda in the Management of Alcohol withdrawal symptoms -A Case Report

Monika Sharma

National Institute of Ayurveda, Jaipur, Rajasthan, India

Corresponding Author's Email: Monika_march77@yahoo.com

Date of Submission: 1 Feb 2021 || Date of Acceptance: 6 Aug 2021

Abstract

Alcohol addiction is considered when consumption of heavy dose of ethyl alcohol beverages for a long period, regularly and characterized by morbid desire to drink alcohol. Prolonged and excessive use of alcohol leads to physical and mental dependence. Every year 2.5 million people die due to alcohol use disorder worldwide. A 30-year-old male alcohol drinker for 04 years abstained from alcohol for 2 days. Consequently, he started having disturbed mental status and sleep, painful and watery eye, with the complaints of anxiety, weakness, tremors, reduced appetite, fatigue as an alcohol addiction symptom. He was treated on indoor basis with combination of Ayurvedic procedures and internal medications for 1 month. The patient was treated with *Drakashaasav*, *Vishatindukadi Vati*, *Ajmodadi Churna*, *Dasan Sanskar Churna*, *Ashwagandha Churna*, *Vidarikand Churna*, *Mukta shukti bhasm* & *Shirodhara* with *Brahmi tail mix* with *Chandana laxadi tail* and *til tail*. The Clinical Institute Withdrawal Assessment of Alcohol scale was used to assess the condition before and after therapy. This treatment helped improving the patient's mental and physical condition and relieved his signs and symptoms.

Keywords: Alcohol addiction, CIWA score, *Shirodhara*, Dependence, Withdrawal

How to cite this article

Sharma M, Role of Ayurveda in the Management of Alcohol withdrawal symptoms -A Case Report, Ann Ayurvedic Med. 2021; 10(4) 440-446 DOI:10.5455/AAM.51042

Annals Ayurvedic Med. 2021; 10 (4) 440-446

Introduction

Alcohol Consumption is responsible for more than 200 illnesses defined by the International Classification of Diseases (ICD 10) as three Digit disease codes¹. About 80% of alcohol consumption is in the form of hard liquor or distilled spirits showing that the majority drink beverages with a high concentration of alcohol². According to recent data published by the World Health Organization (WHO), the total per capita consumption of alcohol by individuals above 15 years of age is 6.2 L of pure alcohol per year, which equals 13.5 g of pure alcohol per day.³ *Acharya Charak* stated that the substance which becomes *Satmya* by continuous utilization is called *Oak Satmya* (Acquired homologation). *Acharya Chakrapani* stated in *Ayurved dipika* that the *Apathya* (un wholesome) substance is more about harmless if it becomes homologous due to

continuous utilization though it may be poison.⁴ The unscientific i.e. *Vidhivipareet* consumption of *Madya* creates a dreaded disease called *Madatyaya*. If a person, who has stopped drinking alcohol, suddenly takes recourse to drinking alcohol in excess, he suffers from *Dhvamsaka* and *Vikshaya*.⁵ *Acharya Kashyap* also describes this as *Panapkram*.⁶ Intervention, detoxification and rehabilitation are the three-steps-of-management available. The *Ayurvedic* ways of diagnosis involves detailed understanding of the individual's characteristics, habits, sleep patterns, body type, and hereditary traits as a first step. *Trividh parikshan* is a unique method to diagnose and severity of addiction including *Sparshan* (tactile perception), *Darshan* (visual observation) and *Prashan* (questioning)⁷. The treatment methods include *Panchakarma* (Purification therapies), internal medication, and advise *pathya* food and lifestyle changes.

Clinical Presentation

This is a case of 30-year-old male works as a Shopkeeper. On 07 April 2019, he came at the de-addiction unit, National Institute of Ayurveda, Jaipur; he was treated here for 1 month on an Indoor patient level. Clinical care is provided through outpatient and inpatient settings which include series of steps such as registration, consultation, evaluation, treatment planning, counselling etc. Monitoring of progress is assessed by a team of addiction experts and individualized suggestions are provided.

Registration

Registration of the patient was done at registration counter and after listening his addiction related problem, he was referred to de-addiction OPD for consultation.

Consultation

Patient reported to de-addiction OPD for consultation where the concern consultant assessed the patient.

A. Assessment: The patient was clinically assessed through history taking and physical/systemic examination by team of addiction experts. Various addiction assessment scales were used for assessing the severity of various drug addictions.

B. Diagnosis: Individual characteristics, habits, sleep patterns, body type and hereditary traits were identified followed by understanding of *tridoshas*. After knowledge about *doshas* also examining of tongue, nails, eye diagnosis and diagnosing the pulse these provide vital clues about nature and tendencies of the individual.

C. Counseling: Patient counseling was done by showing the side-effects of drug intake in the form of videos/images through laptop.

D. Drug History: Patient was taking alcohol for 04 years, starting in small doses but he gradually increased the dose.

E. Clinical Feature : The patient was presented with

reduced appetite, nausea and disturbed sleep, headache, restlessness, watery and painful eyes, anxiety, lethargy, disturbed mental status and tremors. Assessment of the effect of the therapy was done based on changes observed at the clinical level.

F. Physical examination : On examinations B.P. was 110/70 mmHg, pulse was 78/ min, the chest was clear, eyes were pallor, painful and watery discharge, the abdomen was soft and non-tender, bowel habit clear.

According to Ayurveda⁸

- *Dosha - Vata + Pitta+ Kapha*
- *Dhatu - Rasadi dhatus, especially Rasa, Rakta*
- *Agni - Manda*
- *Koshta – Madhyama*
- *Prakriti - Sharirika prakriti – Vata, Pitta*
- *Manasika dosha rajas and tamas*
- *Satva –avara*
- *Srotas- manovaha, rasadi sarva srotas*
- *Mula sthana -hridaya*

On mental status examination, attention and concentration were impaired.

Showing Baseline haematological investigations (before treatment)

Lipid profile and Liver Function Tests were done, which revealed that Haemoglobin: 16 gm%, Lymphocyte-41%, Monocyte-06%, Total leucocyte count-4000.0/ μ L, Total Cholesterol: 176 mg/dl, SGOT - 23.5U/L, SGPT: 27.1U/L, Total bilirubin: 0.5 mg/dl, direct bilirubin: 0.2mg/d.

Showing Baseline haematological investigations (After treatment)

Lipid profile and Liver Function Tests were done, which revealed that Haemoglobin: 16 gm%, Lymphocyte-40%, Monocyte-05%, Total leucocyte count-5000.0/ μ L, Total Cholesterol: 155 mg/dl, SGOT - 21.7U/L, SGPT: 22.2 U/L, Total bilirubin: 0.3 mg/dl, direct bilirubin: 0.2 mg/d.

G. Assessment

Assessment of effect of the therapy was done on the basis of changes observed at the clinical level. Patient's

sign and symptoms were assessed by using Clinical Institute Withdrawal Assessment of Alcohol revised scale (CIWA-Ar scale).

Table 1 : CIWA-Ar scale

Symptoms	Before Treatment 1 st day	During Treatment 15 th day	After Treatment 30 th day
Nausea/Vomiting (0-none/ 2-mild/ 4-intermittent dry heaves/ 7- constant vomiting)	1	0	0
Tremors (0-none/ 1-not visible but felt at fingertips/ 4- moderate with arms extended/ 7-severe at rest)	4	1	0
Paroxysmal Sweats (0-none/ 1-barely moist/ 4-beads/ 7-Drenching sweats)	2	0	0
Anxiety (0-none/ 1-Mild/ 4-Moderate/ 7- Severe, Panic, Delirium)	5	2	1
Agitation (0-none/ 1-Somewhat/ 4-Fidgety/ 7- Panic around, Thrashing)	3	1	0
Tactile disturbances (0-none/ 1-Mild Itching, Pins & Needles, Burning, Numbness/ 4- Moderate/ 5- Severe/ 7- Constant)	3	0	0
Auditory Disturbances (0-none/ 1-Mild/ 4-Moderate Frightening/ 6- Severe/ 7- Constant)	2	0	0
Visual disturbances (0-none/ 1-Mild/ 4-Moderate/ 6- Severe/ 7-Constant)	4	1	1
Headache and fullness in head (0-none/ 1-Mild/ 4-Moderate/ 6- Severe/ 7- Continuous)	4	2	0
Orientation and clouding of sensorium (0-Fully orientation/ 1-cannot do addition and/or is uncertain about day/date/ 2-disoriented by less than 2 days/ 3-disoriented by more than 2 days/ 4-disoriented to place and/or person)	3	1	0
Total	31	8	2

CIWA Score Interpretation

0 to 9 points-very mild withdrawal;16 to 20 points -Modest withdrawal;21 to 67 points-Severe withdrawal

(The maximum score is 67; Mild alcohol withdrawal is defined with a score less than or equal to 15, moderate with scores of 16 to 20, and severe with any score greater than 20.)

When the patient was admitted, his overall score was 31, indicating that he was suffering from serious alcohol withdrawal, according to CIWA-Ar. After treatment of 15 days the score goes to 8 and when patient leaves score was 2. That shows significant improvement in alcohol withdrawal's symptoms. All signs and symptoms were disappeared after proper treatment of patient and improved sleep appetite, anxiety, visual disturbance, and tremors.

Consent of patient

The patient has given his consent for her clinical information to be reported in the journal. The patient understand that his name and initials will not be published, and due efforts will be made to conceal his identity.

Management Protocol

In *shaman chikitsa* various *deepan* and *pachan* medicines like *Ajmodadi churna*, *lavanabhaskar churna* are used to increase the *agni* and digesting toxic waste (*aam*). *Padanshik Krama* (gradual withdrawal) was used to avoid the harmful effect due to sudden withdrawal of *Satmya* Substance.. If the withdrawal symptoms appears then they are treated symptomatically.

Table 2. Treatment Procedure given in Patient

Medicine	Dose	Anupan	Days	Doshaghanta	Remark
<i>Ajmodadi Churna</i>	2 gm twice a day (after meal)	Luke warm Water	15 days	Reduces <i>Vata</i> aggravation and balance <i>kapha</i> <i>dosha</i>	<i>Deepan- pachan</i>
<i>lavanbbhaskar churna</i>	3 gm Once a day (before meal)	<i>Takra</i> (buttermilk)	7 days	Balance <i>Kapha</i> and <i>Vata dosha</i>	<i>Deepan- pachan</i>
<i>Vishtindukadi vati</i>	1 tab twice a day	Milk	07days	Pacifics <i>Vata</i> <i>Dosha</i>	Analgesic, Nervine and cardiac stimulant
<i>Vidarikand churna</i> 3 gm <i>Ashwagandha churna</i> - 2 gm <i>Mukta Shukti</i> -500 mg	5 gm twice a day	Milk	30 days	Balance <i>Kapha</i> and <i>Vata dosha</i>	Anti-craving, balya
<i>Drakashasav</i> mixed with water	20ml Thrice a day	-	15 days	Pacifying <i>Vata</i> and <i>Pitta dosha</i>	Appetite enhancer, liver protector and to replace alcohol to control withdrawal.
<i>Amarsundari</i> <i>Vati</i>	2 tab at night	Luke warm Water	20 days	<i>Vataghana</i>	Calmness of mind Enhances sleep
<i>Shirodhara</i> -Brahmi tail mix with <i>chandanbala lakshadi</i> tail and til tail	05 day -Local application	-	14 days	Balance <i>vata</i> and <i>pitta dosha</i>	<i>Shirodhara</i> with <i>brahmi</i> <i>kwath</i> helped in calming mind and to produce sound sleep due to its <i>medhya</i> property.

<i>Brahmi vati</i>	2tab twice a day	Milk	15 day	Balance <i>vata</i> and <i>pitta dosha</i>	These drugs for anxiety, tactile hallucination and specially in insomnia is a great task to deal with. Where drugs containing <i>Bhanga</i> or <i>Ahiphena</i> to treat insomnia.
<i>Dashan Samskar Churna</i>	3 gm twice a day	-	20 days	Balance <i>vata</i> and <i>pitta dosha</i>	Used as tooth powder, improve tooth strengthens
Syrup M -Liv	2 TSF after meal	water	15 days	Balance <i>vata</i> and <i>pitta dosha</i>	Hepatoprotective

Outcome of the Treatment

On assessing the condition of patient after 30 days of treatment, by using the CIWA-Ar scale, it was observed that all the symptoms got reduced significantly after 15 days of the treatment. After 30 days, tremors and headache were subsiding, sleep was normal and visual disturbance symptoms also improved in patient, generalized fatigue was reduced. Almost all the symptoms subsided with the therapy. There was an overall improvement in functional capacity of the patient.

Satvavajaya Chikitsa

Satvavajaya is bringing the mind under control. A physician helped patient by regulating his thought process, replacing negative ideas, proper channeling of presumptions and proper advices. Various activities like *Asanas*, *Prnayamas*, meditation, *kriyas*, and deep relaxation techniques were taught to patient with an association of *Yoga* unit of National Institute of Ayurveda, Jaipur.

Dietary modifications

The patient was advised to eat *Pathya Ahar* (healthy food) according to his constitution, working condition, and geographical location. *Mudag Yush*, *Kharjuradi Manth*, *Kshira (Milk)*, *Petha*, *Rajgiraladdu*, *Laja*, and others are among them.

Lifestyle changes

Along with diet and medications, lifestyle is also a part of

body nourishment plan. Few of the lifestyle changes required for de-addiction are: - at 30 minutes of exercise daily, diverting attention from addiction, practise deep breathing at the time of craving. Daily practice of *yogasanas* including *Pranayama* (Proper breathing) like deep abdominal breathing, *Adhomukha swanasana* with bolster support, *Viprita Dandasana* on bench, *Supta Virasana*, *Supta Badhakonasana* and *Viprita Karni* help to balance the *vitiated doshas* and realign the system. Yogic relaxation practices are useful in reducing mental tension and anxiety. Due to over stimulation of the body through drugs and alcohol, often there are problems with nervous energy and insomnia. Simple technique like *Savasana* (Corpse pose) with auto suggestion relaxation (tensing, then relaxing, each part of the body progressively from toes to head while mentally repeating “I am relaxing my toes, feet, legs, back etc.”) can be taught and practised for 10 to 15 minutes daily to calm and stabilize the body and mind.⁸

Follow-Up

The patient was being followed up on. A brief investigation into the patient’s medication regimen and other related issues was conducted, and the patient was found to be in good health. The family members were given advice on how to continue the follow-up. During care and follow-ups, the patient was advised to avoid spicy, oily, and salty foods and to consume milk, *peya*, and *khichdi* as *pathya* in food.

Discussion

Alcoholism is a condition marked by prolonged consumption of alcohol. Up to 41% suicides are attributable to alcohol and 23% of people who engage in deliberate self-harm are alcohol dependent.⁹ According to WHO Worldwide, 3 million deaths every year result from harmful use of alcohol, this represents 5.3 % of all deaths. The harmful use of alcohol is a causal factor in more than 200 diseases and injury conditions.¹⁰ Ayurveda has mentioned a unique *Samprapti*, *Lakshan* (sign and symptoms) and specific management of Alcoholism. National institute of Ayurveda has established a protocol based on Ayurvedic principle for de-addiction unit. The patient condition was managed according to this protocol and initial treatment started with *deepen- pachan* drug. On sudden abstinence of alcohol, *agni* which maintains the equilibrium of body gets altered, leading to formation of *ama*. The *ama* causes *srotorodha* and resulting deficit in *bala*. *H[daya* is the *chetna stahan* and it also affected in alcohol addiction.¹¹ In this case, combination of *Vidarikand churna*, *Ashwagandha churna*¹² and *Mukta Shukti*¹³ was given to the patient as *balya* (tonic), balance *Kapha and Vata dosha*. *Oja-vardhak* and anti-craving effect. *Vidarikand* also helps in reducing alcohol consumption due to its antioxidant properties.¹⁴ *Ashwagandha* acts against anxiety, depression and cognitive impairment due to its antioxidant and dopaminergic action¹⁵ and *mukta shukti* reduces excess *pitta* due to its *sheeta viryva* (cold potency).¹⁶ *Ajmodadi churna* given to the patient acted through its *deepan pachan* property. *Vishatinduk vati* used to treat tremors present in patient. Syrup *M-liv* is hepatoprotective, laxative, diuretic and general tonic during convalescence. *shirodhara* therapy is used to maintain good mental health and it is very effective in promoting sound sleep and reducing stress.¹⁷ *Amarsundari Vati*, *brahmi vati* relieve stress, insomnia and anxiety and *Drakashasav* plays an important role to relieve from withdrawal as well as previous damages *Dashan Sanskar Churna* given to patient to balance *vata* and *pitta* and also improves tooth strength.¹⁸ This protocol is very effective in alcohol withdrawal symptoms and patient condition improved after proper treatment.

Conclusion

The patient's response to the ayurvedic treatment has been very positive. The outcome of therapy is measured using modern parameters and scales, such as the CIWA-Ar scale, which indicates that with adequate treatment, meditation, and counselling, the patient's physical and psychological symptoms improve. The ancient texts of Ayurveda mention Alcohol Withdrawal Syndrome and other disorders of alcohol dependence in detail. Treatment focuses on balancing the *tridosha* (*vata*, *pitta*, and *kapha*) as well as the *triguna* (*satta*, *raja*, and *tama*) to provide symptomatic relief to the patient. *Shirodhara* procedure has played important role in alcohol addiction and it relieves insomnia and anxiety. Psychological counselling, *Abhyang*, *shiro- Abhyang* and dietary medication should be applied in case of addiction to rehabilitate the patient.

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Source of Support : Nil
Conflict of Interest : None