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Case Study

A CASE REPORT ON ALCOHOL WITHDRAWAL SYNDROME

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ABSTRACT

Heavy drinkers who abruptly cut back on their alcohol intake or give it up entirely risk experiencing alcohol withdrawal. The warning signs and symptoms include agitation, anxiety, irritability, and mild to moderate tremors. Seizure, hallucinations, delirium tremens are the most severe withdrawal symptoms. These symptoms arise from abnormalities in brain chemistry brought on by alcohol, which leads to an excess of neuronal activity when the alcohol is stopped. Ayurveda is a holistic approach which not only takes body into consideration but also mental status. *Madatyaya* is a wide term explained in our classics, while explaining *Madya*, *Acharaya* told that it has properties opposite to that of *Ojus*, so these substances causing depletion to our body resources can be correlated to *Madatyaya.* So it's a case report on alcohol withdrawal symptoms and its effective management using Ayurvedic treatment modalities.

INTRODUCTION

Substance use disorder (SUD) is a complex condition in which there is uncontrolled use of a substance despite harmful consequences. People with SUD have an intense focus on using a certain substance(s) such as alcohol, tobacco, or illicit drugs, to the point where the person's ability to function in day-to-day life becomes impaired. People keep using the substance even when they know it is causing or will cause problems. Any psychoactive substance that has the potential to lead to social and health issues, including addiction, is considered a "substance." These drugs could be controlled for use by authorized prescribers for medical purposes, like hydrocodone or oxycodone (e.g., oxycontin, vicodin, and lortab), or they could be illegal (e.g., heroin and cocaine), legal (e.g., alcohol and tobacco), or both. The pharmacological and behavioral effects of these drugs can be categorized into seven classes[1]:

Cigarettes, vapor cigarettes, cigars, chewing tobacco, and snuff all contain nicotine.

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Alcohol: All varieties of wine, beer, and distilled liquors

Cannabinoids include edible cannabinoids, hashish, hash oil, and marijuana.

Heroin, methadone, buprenorphine, oxycodone, vicodin, and lortab are examples of opioids.

Benzodiazepines (like valium, librium, and xanax) and barbiturates (like seconal) are examples of depressants.

Cocaine, amphetamine, methamphetamine, methylphenidate (found in ritalin), and atomoxetine (found in stratera) are examples of stimulants.

Hallucinogens: LSD, MDMA.

The worldwide prevalence of SUD is 2.2%, with a higher prevalence of alcohol use disorder 1.5% than other drug use disorder. Nationwide prevalence shows that about 14.6% of people among 10-75 year old are current users of alcohol, that is approximately 16 crore people. Prevalence is 17 times higher among men than women. More than one in four adults living with serious mental health problems also has a substance use problem. About 5.2% of Indians are estimated to be affected by harmful or dependent alcohol use. In other words every third alcohol user in India needs help for alcohol related problems[2]. Generally withdrawal symptoms occur when the individual discontinues or reduce alcohol intake after a prolonged consumption. Symptoms range from mild tremors to a condition called delirium tremens. Withdrawal usually begins 6-24 hours after last drink[3]. Within 24-72

hours symptoms peak, then they subside gradually within 7 days[4]. The patient must experience at least two of the following symptoms in order for their condition to be diagnosed as alcohol withdrawal syndrome: increased hand tremor, sleeplessness, nausea or vomiting, auditory or visual or tactile hallucination, psychomotor agitation, anxiety, seizures[5].

Symptoms are grouped as[6]:

- Alcohol hallucinosis
- Withdrawal seizures
- Delirium tremens

Case Presentation

A 23yr old male who is chronic alcoholic since past 3years came to OPD complaining of

- Visual and auditory hallucination since 1yr
- Increased fear since 4 months
- Reduced sleep since 4 months
- Generalized body pain since 4 month

Family History

Father and maternal uncle was alcoholic

Past Intervention

Nil

Course of Events

- Patient was clinically asymptomatic till 15yrs of age. While studying in 10th std he started to use alcohol.
- Initially he used it occasionally. Once in three weeks
- Gradually he started to take it twice/thrice in a week, quantity supposed to be 3 peg each time.
- On 2018 he went to Bangalore for job , from there he began to use MDMA along with alcohol that is daily 200ml of alcohol, MDMA.
- After a period of 6 months he returned to Kerala and he voluntarily stopped the usage of MDMA.
- On stopping this it began to affect him, especially during night time, as he was unable to sleep, he sees image of ghost and hear sounds 'njan ninte atmavine kond povum' (He hears sound like this- that his soul will be taken away)
- Hence he began to smoke weeds; on smoking this along with taking alcohol he was able to sleep without any difficulty.
- His mother reported that during this period mainly during evening time he used to get irritated for small things and used to destroy thing in the house.
- Whenever he was in short of money, he used to sell equipment's in the parlor.
- Since past 3 year due to the pandemic he is continuously sitting in the house and daily taking almost 350ml of alcohol.
- Visual and auditory hallucination was very much pronounced during this time that he used to cry out in late night.
- Now he voluntarily want to stop this addiction, so was admitted here at IP

Personal History

Food habits: Irregular; used to take food once/twice in a day.

Sleeps: Around 3am-4am, requires alcohol

Wakes up around: 11am/12 pm

Addiction since past 4 months

Alcohol 350ml/day (especially drinks during evening time)

Smoking- 5 cig/day

Bowel: Regular

Appetite: Reduced, used to eat once/twice in a day

Micturition: Within normal limits

Sleep: disturbed

General Examination

Patient is conscious oriented cooperative

Build: Moderate

Nourishment: Overweight

Hygiene: Satisfactory

Gait: Normal

Posture: Erect

Height: 167cm

Weight: 83kg

BMI: 29.7 kg/m^2

Vitals: BP – 130/80mm Hg left arm supine sitting
HR – 78bpm
PR – 78bpm
RR – 16/min

Mental State Examination

1. General appearance and behavior

- General appearance- grooming, dressing, hygiene, self-care was satisfactory
- Attitude towards examiner- cooperative, less attentive
- Comprehension- intact
- Gait and posture- normal
- Motor activity- there was abnormal movements (tremulousness of B/L hands)
- Rapport- mild difficulty to maintain rapport

2. Speech

- Rate- Slow
- Volume- Decreased
- Pitch- Low
- Flow and rhythm- Smooth

3. Thought – Intact

4. Perception – Hallucination present (visual and auditory hallucination)

5. Cognitive assessment – Intact
6. Insight and judgment – Intact

Ayurveda *Dashavidha Pariksha*

Dooshyam

Dosham – Tridosham, Raja tama

Vatika features – *Kampa, Anidra*

Paittika- Atisweda, Daha

Sleshmika - Alasyam, Sthanamekadesha

Dhatu – Rasa rakta meda majja

Mala- Sweda

Desham

Bhoomi – Sadharanam

Deham – Sarvangam

Balam

Rogi – Madhyamam

Roga - Madhyamam

Analam – Vishamagni

Prakrithi – Kapha pitta

Vaya – Madhyamam

Sathwam – Madhyama

Sathmyam – Sarvarasa

Aharam

Jaranashakthi – Madhyamam

Abhyavaharanashakthi – Madhyamam

Hence it's a case of *Madatyaya*

Ayurvedic Intervention

Table 1: Shows internal and external medication used

Internal Medicine	Procedure	Remarks
	Virechanam with *Avipathi ch* 20gm in *Drakshadi ks* Followed by *Peyadi*	Reduction in burning sensation
Drakshadi ks 90ml tid 6am, 11am, 6pm *Sreekandasavam* 40ml bd a/f *Avipathi ch* – 5gm hs in lww *Manasamithravatakam* 1-0-1		
Patoladi ks 90ml bd b/f *Liv 52* tab 1-0-1 *Drakshadi ks as Paanam* *Sreekandasavam* 40ml + equal qty of water	*Thalapothichil* with *Panchagandha ch for 7 days*	Sleep improved. Reduction tremor Hallucinations stopped
Patoladi ks 90ml bd *Arogyavardhini tab 2-0-2 a/f*	*Udwartanam* with kkc for 7 days	
Chirivilwadi ks 90ml tid *Pipalyasavam 20ml tid* *Arogyavardhini* tab *1-0-1 a/f*		Appetite improved
	Snehapanam with *Kalyanaka ghritam* for 7days *Abhyangam* with *Karpooradi Tailam + Ushmaswdam* for 1day Followed *by Vamanam* on next day *Peyadi krama* followed	After *Vamana* patient felt lightness over body. There was a pleasant feeling
Dasamoolakatutrayam ks 90ml bd b/f *Sudarsanam* tab 1-0-1 *Vilwadi gulika* 1-0-1		As he has cough and nasal congestion
Patoladi ks 90ml bd b/f *Arogyavardhini* tab 1-0-1 a/f	*Nasyam with Nimbamritasavam* 5 drops in each nostril for 7 days	

Discharge medicine: *Drakshadi kashayam* 90ml bd b/f

Arogyavardhini vati 1-0-1 a/f

OBSERVATION

The alcohol withdrawal symptoms were analysed using CIWA-Ar[7] that is Clinical Institute Withdrawal Assessment of Alcohol Scale Revised. The maximum possible score is 67. Scores less than 8-10 indicate minimal to mild withdrawal, 10-15 indicate moderate and more than 15 indicate severe withdrawal.

Table 2: Alcohol withdrawal symptoms were analysed using CIWA-Ar

S.No	Date	CIWA Score
1	5/05/2023	20 Severe
2	15/06/2023	4 Mild

Table 3: Haematological assessment

S.No	Examination	3/05/2023	26/05/2023	13/06/2023
1	Total bilirubin	1.2	1	1
2	Direct bilirubin	0.4	0.3	0.4
3	SGOT	170	87	47
4	SGPT	298	141	101

DISCUSSION

According to *Acharya Sharangadhara madya* posess *Tamo guna* and causes derangement of mind, *Budhim lumpyathi yat dravyam*.

Stages of *Madatyaya*[8]

First stage- Pertaining to happiness, increased activities of mind.

Second stage- Adventurous activity, infatuated by wrong thinking.

Third stage- Lies on ground, his movement is like cadaver is a greater sinner than one who is dead.

General symptoms seen in *Madatyaya*

Pramoha (delusion), *Hridvytha* (discomfort in the region of heart), *Pratatam trishna* (constant thirst), *Kampa* (tremor), *Prajagara* (insomnia), *Chittavibhrama* (distortion of mind), *Pralap* (incoherent talk), *Dukhaswpana darshana* (bad dreams).[9]

Rationale behind selecting treatment

Initially started with a *Shodhanam* with *Avipathi choornam,* as his LFT has variation and also in view that *Manovaha srotas* has been affected, symptoms of *Prabhoota doshavsta* was there hence *Shodhanam* is necessary. Next step we have started with *Thalapothichil* as he was having sleep disturbance and hallucination, at the end of this treatment his sleep improved and there was no more hallucination feeling. As he was obese next we started with *Udwarthanam* at the same time we have to prepare patient for *Snehapanam*, so *Udwartnam (Ruksha*) selected. For *Snehapana kalyanaka ghrita* mentioned in *Unmda prakaranam* was selected because *Ghrita* in *Unmada prakaranam* has the ability to penetrate to deeper *Srothas* as *Unmada* is one among such disease, furthermore this *Ghrita* has *Vishagnam* and *Garakhnm* property *(Madya has visha guna).* Treatment ended with *Nasya* as it has the ability to clear *Srothas* of head.

CONCLUSION

Ayurveda has clearly explained *Madatyaya* and its treatment, in recent day's alcohol and other substance usage is increasing, especially among our youth. This case report shows effectiveness of Ayurveda treatment towards such disorders. Along with this medicinal therapy, spiritual and psychotherapy is also needed. Thus Ayurveda has effective solution in management of alcohol withdrawal symptoms.

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